

Brain-Based Behaviour and Animated Narrative: A Cognitive Reading of *Over the Hedge*

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.910000812>

Received: 12 November 2025; Accepted: 18 November 2025; Published: 25 November 2025

ABSTRACT

This paper explores the animated film *Over the Hedge* representing vivid exploration dynamics among a diverse group of animal characters as they navigate survival in suburban environments. Keeping Daniel G. Amen's principle from *Change your Brain, Change your life*, this paper examines how emotional responses such as fear, impulsivity, aggression, anxiety and empathy of the main characters in the animated film represent their characters. Amen gives understanding that true happiness is not from external rewards but from stable brain chemistry and healthy emotional strength. In *Over the Hedge*, the characters' pursuit of happiness is portrayed through their responses to new and challenging environments. Despite of fear, conflict, anger characters of the film shows the journey of happiness in their life. Analysing animated films emotional portrayals with Amen's framework helps a deeper understanding of the connection between brain health and emotional life, in *Over the Hedge* Characters depict their emotions to an extent This aligns with Amen's core belief that emotional well-being starts with nurturing a healthy brain.

Keywords: *Over the Hedge*, brain, animated, wild animals, emotional

INTRODUCTION

Over the Hedge is a 2006 American animated movie produced by DreamWorks Animation. The film has been used as a medium for providing social commentary on consumerism, typified by the middle-class suburbia. The film is presented from the perspective of small woodland creatures, which include a raccoon, turtle, squirrel, skunk, porcupine and a possum as they witness the human suburban lifestyle for the first time. The movie has provided a fresh perspective in this context, as, other than the raccoon named RJ, none of the other animals have ever been exposed to the human lifestyle (Hinkins, 2007). The movie presents a stark contrast between the pastoral existence of the woodland animals and the complex lives of the human characters (Peabody, 2006). Before being exposed to human civilization, the animals lived simple lives where their goals mostly involved collecting nuts and berries and hibernating during winter. The destruction of the woodlands has taken away more than half of the forest and replaced it with suburbia, which is separated from the forest by a giant hedge.

The Pixar movies are well known for using conventional narratives about the individual struggles of characters, but also for using these characters against a collective action and providing anti-capitalist criticism. *Over the Hedge* addresses many significant social issues such as deforestation, loss of habitat, rapid urbanisation and the impact which these have on the local wildlife of the region. Right from the beginning of the movie, the consequences of habitat loss are evident as the animals have reduced access to their food sources and are forced to infiltrate the suburbia for food, exposing them to hazards and other toxic substances. Human nature is satirised within the movie to depict the negative impacts it has on both the individual and the environment (Halberstam, 2016). The desire for difference in the movie has been connected to selfishness, as seen with RJ, Verne presents the opposite end of the spectrum as he suffers from a fear of change. The primary motivation for the film is to showcase the triumph of the little guys over the consumerist culture of humans.

The purpose of the present research has been to observe the emotional development of the characters within the movie, from the perspective of Daniel G. Amen and his book *Change Your Brain, Change Your Life*. In his book,

Amen has argued that all experiences are controlled by the brain, and therefore, if the brain is not functioning properly, it will negatively impact the behaviour and emotions of a person. While most people perceive cognitive dysfunction to be normal with ageing, poor diet, stress, lack of sleep, health problems and high-risk behaviour are considered to be factors which lead to a decay of the brain (Amen, 2012). A healthy brain leads to a person leading a happier and healthier lifestyle, while a brain which unhealthy brain pushes the person towards sadness.

The author has argued that the internal state helps in driving the external state, as emotions turn into feelings, which in turn give rise to consciousness and drive a certain behaviour. The author has further suggested that changing how the world is perceived can significantly help with the feelings experienced by an individual (Amen, 2012). As Amen states that the emotional issues can be connected to behavioural patterns of a person, the different brain types and issues experienced by the characters in *Over the Hedge* can be related to the principles. Each of the characters in the movie has certain behavioural patterns which are reflected in a particular brain type, using this theory of Amen can therefore deepen the understanding of the emotional wiring of the characters.

Theoretical Framework: Daniel G. Amen's Model of Brain-Based Behaviour

Daniel G. Amen is a clinical neurologist, psychiatrist and brain-imaging expert. He is also the head of the Amen clinics and, as a result, possesses profound knowledge of brain-based behaviour. Unlike other experts, Amen uses brain images not to diagnose illnesses but rather considers them invaluable resources which can help an individual gain practical knowledge for their everyday life (Johnson, 2008). The research by Dispenza (2012) in the context of Amen suggests that the brain can be conditioned to change before experiencing a certain event, which can therefore allow for aligning behaviour before it becomes a reality. Higher happiness score for the brain is directly related to high brain perfusion and leads to better emotional engagement, regulation and attention (Keator, Fallon & Amen, 2022). Therefore, the findings of Amen suggest that an emotionally balanced brain can reach its prime. Physical activities and proper food are essential for a well-functioning brain.

Amen through his research has revealed that there are eight types of brains, and understanding which type of brain is possessed by an individual is integral towards providing them with the right help. The eight types of brains are impulsive, compulsive, impulsive-compulsive, sad or moody, anxious, temporal lobe, toxic and post-traumatic stress. Amen further suggests that an individual can have either one of these brain types or a combination of them. The SPECT (Single-Photon Emission Computed Tomography) scans have been used for determining the type of brains an individual has and the types of depression, ADHD, bipolar disorder or other types of mental conditions a person has (Amen, 2012). People who have an impulsive brain generally have lower activity on their prefrontal cortex, as a result, these people struggle with thinking about the consequences before they speak or act. The research has shown that individuals with ADHD suffer from this condition more than condition more than others.

A compulsive brain has been defined to harbour negative thoughts and behaviour. These individuals have less control over their behaviour, as they have trouble shifting their attention; they are seen to be stuck with the same thought. The SPECT scan has revealed that people with this type of brain have too much activity in the deeper part of the frontal lobe. The impulsive-compulsive brain is unique; these types of brains show high activity in the brain's gear shifter, which means the individual is more likely to overthink and be stuck on negative thoughts (Amen, Willeumier & Johnson, 2012). Simultaneously, as they have little activity in their prefrontal cortex, they struggle to supervise their behaviour. A sad or moody brain is associated with depression, low self-esteem and energy (Amen, 2012). In the SPECT scans, these types of brains have too much activity in their limbic or emotional part of the brain. External factors such as stress or grief have a significant impact on this brain type and lead to depression.

Anxious brains are possessed by nervous individuals; they are portrayed to be tense and stressed all the time. Individuals with anxious brains are conflict-avoidant and can be seen to fear changes. High activities are seen within the basal ganglia of the brain for this condition. The temporal lobe is often a result of a brain injury, which leads to the individual suffering from learning difficulties (Amen, 2012). The study has further suggested that temporal lobe problems are very common in resistant depression. Toxic brains generally show low activity, which can be caused due to drug use and usage of alcohol use (Amen, Henderson & Newberg, 2021). Environmental

toxins, chemotherapeutic, radiation and infection in the brain can also cause such problems. Patients with this condition suffer from depression and low energy. The final brain type is the post-traumatic stress brain, which takes place as a result of lifelong stress patterns experienced by the brain. The traumas experienced by the individual in the past get stuck in their brains and, as a result, they continue to suffer.

Amen has also shared that everything that comes out of the brain is an emotional response; choosing to focus on the positive thoughts can lead to the individual facing less stress and fear. Amen through his work has suggested different internal brain activities that can help with stabilising the brain and reducing negative feelings. He has discussed the potential of external rewards for certain activities to positively influence the brain. Daily exercise and nutritious food produce mood endorphins, which have long-term payoffs and help the individual to be more committed. Through his research, Amen has shown that the brain is capable of change, and positive emotional and behavioural changes can improve the thinking of an individual and more capable of change. In the movie, during the climax, RJ is seen to have become empathic as he helps his newfound friends; this can be linked to Amen's belief that healing of the brain is possible through positive changes.

Overview of *Over the Hedge*

The movie *Over the Hedge* (2006) starts with RJ, the raccoon, trying to retrieve a packet of chips from a vending machine. His hunger and desperation cause him to try and steal from a hibernating bear named Vincent. Vincent wakes up from his sleep to find his stack of food stolen and accidentally destroyed by RJ, and therefore gives him a week to restock all of the food RJ has wasted before the next full moon. The movie shifts to the coming of spring in a small jungle, with little forest animals emerging from their long slumber. The group of animals, which includes a turtle, a skunk, a squirrel, two possums and 4 porcupines, are shown to instinctively start hoarding again for the next winter (Peabody, 2006). RJ finds this group of animals after they have discovered half of their forest being converted into a suburban area and separated by a hedge. RJ is shown to be successful in cleverly mobilising the group of animals and convincing them to go beyond the hedge to collect food from the humans (Ebert, 2006). Although Verne is seen to protest against the dangers of crossing the hedge, the other animals are swayed after RJ gets them hooked on junk food, motivating the animals to steal more.

The act of deforestation and the conversion of half the forest land into 54 acres of suburbia shows the deteriorating effects of human society on nature. All of the animals that have been shown in the movie once ate roots, nuts and berries, but the taste of processed junk food got them hooked and led them to start stealing from the garbage cans and sometimes the kitchen of the people (Ebert, 2006). Gladys is the first human character to be introduced in the movie. Being the president of the homeowner association, she is obsessed with the appearance of the plots and the compound (Hindersson, 2023). The animals continue stealing more and more from Gladys and her other neighbours, which forces her to contact and bring in Dwayne, a pest control expert. This shows the self-centred nature of humans and their loss of connection with nature. As Gladys, with the collaboration of Dwayne, lays out traps and bug zappers to capture and kill the little forest animals. Verne watches the dangers of going beyond the hedge and decides to give back all of the stolen food to the humans. RJ stops him, as the entire time, his goal was to trick the forest animals and give back the food to Vincent. In their struggle to take control of the food, the food is seen to be destroyed.

The animals, not knowing about RJ's plan, blame Verne for destroying the food, and the group decides to carry out a final heist after they see Gladys getting a big food delivery for a party. Despite careful planning, the animals get caught in Gladys's kitchen and are captured by the exterminator. Even though RJ originally betrays the animals and steals all the food to take to Vincent, he is shown to return and crash the wagon full of food into the van of the exterminator. This provides the animals with an opportunity to escape, but they get caught in the hedge between Gladys's, the exterminator and Vincent (Hindersson, 2023). The polluting effects of civilisation are not limited to humans, as RJ's attitude early on in the movie shows the convincing and selfish nature of humans. Hammy the squirrel is seen to be used as the final weapon to set off different illegal traps in Gladys's garden, which leads to an explosion and the arrest of both Gladys and the exterminator. The animals, after discovering the deceitful nature of RJ, do not abandon him, but rather welcome him to their family. In the end, the animals do go back to nature, but they have all significantly changed and grown through the experience (Peabody, 2006). The unconventional family of Verne provides the animals with a sense of home and helps them become more resilient.

Character Analysis through Amen's Lens

RJ - Impulsive Brain



Over the Hedge Wiki. (n.d.). RJ and Verne [Screenshot]. *Fandom*. <https://hedgecomic.fandom.com/wiki/>

The character of RJ has been presented as a cunning raccoon who abuses the naivety of a family of forest creatures to help himself repay the debt he owes the bear, Vincent. The poor animals of the forest are made to believe that RJ genuinely wants to help them, but his goal during the entire heist has been to save himself from Vincent (Hanna & Bye, 20014). The author has presented RJ as a clever raccoon, as he can operate the vending machine and his addiction to the “Spuddies” chips, the harms of consumerism have been evident throughout the movie, as for RJ the chips as been portrayed as illicit drugs with him being an addict. The viewers are introduced to RJ’s scheming and planning nature as he usurps the leadership of Verne the turtle over the forest animals by promising them a happy life of nachos and other junk food (Ebert, 20006). Through the character of RJ, the harmful and addictive nature of greed can also be witnessed as he enters the bear’s cave to only steal one packet of chips, but after seeing the big stack the bear has stored for hibernating, he decides to steal all of it. He is seen trying to leave, but fails as he is captivated by greed to take all of the bear's possessions.

The impulsive nature of RJ is what ultimately leads to him getting caught by Vincent. RJ’s inability to control his greed and opening the stolen chips straightaway results in the bear waking up from his hibernation. The movie, through its character, has shown how greed leads to overconsumption that precedes actual needs and leads to punishment. After seeing his stack of food getting destroyed by a truck, Vincent orders RJ to bring him all of the food items that he lost within a week. RJ is deceitful, cunning, false and selfish, but in the end, the animals of the forest accept him as their own (Hinkins, 2007). It was ultimately the greed and obsession with the Spuddies chips which ultimately led to the forest animal getting caught inside the house. RJ, using his wits, manages to escape and take the goods back to Vincent. However, when the bear tells RJ he is becoming like Vincent, individualistic, greedy and selfish, as he sacrifices his friends. RJ suffers from a moral crisis.

This impulsive and deceptive nature of RJ can be connected to Amen’s impulsive brain concept. In his book, Amen has shared that a troubled brain leads to a person acting on their impulse. Impulsive behaviours have been found to lead to various problems and regret (Amen, 2012). RJ, near the end of the movie, is also observed to suffer from regret as he betrayed the trust of his newfound family. Individuals with the impulsive brain are known to suffer from controlling their impulses; they are disorganised and possess low attention as a result of low activity in their prefrontal cortex. It is the greed and impulse of RJ which motivates him to steal from Vincent, enter his cave, and steal his whole stash of food instead of a packet of chips (Hinkins, 2007). Being the main protagonist of the movie, the audience is swayed by the views of RJ and the actions he takes within the movie. The changes which he goes through are also applauded by the audience. Despite being impulsive, RJ is shown to be cautious

and well aware of the suburbs as he makes the animals and the viewers aware of the suburban landscape. RJ, as a character, is also highly convincing as he convinces the forest animals that all of the food available on the other side of the hedge is good.

The book of Amen has also suggested that negative attitudes and brain functions can be improved through a positive and healthy support system (Amen, 2012). Having friends and family leads to a healthy emotional balance, which reduces negativity and leads to positive thinking. RJ transforms at the end of the movie, where he risks his own life to save his friends. He realises that his friends are more important than the debt he has towards Vincent and therefore crashes the wagon full of food with the truck of the exterminator. Back at Gladys's house, RJ uses his quick thinking to again save his friends from both Vincent and the exterminator. He gives Hammy a Maci-B caffeine drink, which helps her become much faster (Hinkins, 2007). Using the newfound power of Hammy, RJ sets off dangerous traps, which lead to the capture of the bear and the arrest of the exterminator for using illegal equipment to capture animals. A positive mind is relaxed and more productive. The love and affection which RJ received from the forest animals made him feel at home and led to his transformation. At the beginning of the movie, RJ was seen giving in to immediate desires that produced immediate desires, such as the Spuddies chips. Through the transformation, RJ learned to have more control over himself and care for the welfare of the whole group of animals.

Verne - Anxious Brain



Over the Hedge Wiki. (n.d.). Verne [Screenshot]. *Fandom*. <https://hedgecomic.fandom.com/wiki/>

In the movie, the character of Verne has been presented as timid and cautious. Throughout the movie, he has always shown restraint and reluctance and therefore is a direct foil to the character of RJ. When RJ first comes to the forest and starts influencing the other forest animals, Verne is the only one to show suspicion, as he had a bad feeling about the raccoon. However, even after RJ usurps his family of the wild animals, Verne does not think about revenge or bears hatred for the group, as he has been kind towards them. His reluctance is what prevents him from believing all of RJs stories; he possesses his reasoning and does not get honeyed (Peabody, 2006). Verne is essentially scared of changes; whenever there are signs of danger, he hides inside his shell and thinks of the negative consequences. Verne believes in following rules and not acting on impulses. After he sees Gladys bringing an exterminator, he plans to give back all of the stolen food, fearing consequences (Hindersson, 2023). He does not like all of the other animals eating junk, and continuously visiting the house of Gladys to steal more, with all of the dangerous traps that have been set in the backyard.

The confrontation and chase between RJ and Verne results in all of the food stored being destroyed once more, which gets Verne hated by his family. Even though he is scared, he still wants to do the right thing, he agrees to help RJ carry out one last heist to get all of the food. After getting captured and transported to the van of the exterminator, he still does not bear negative feelings for RJ and rather suggests that the other animals accept him when RJ comes back to save them from the exterminator. Hinkins (2007) considers Verne to be the second most

prominent character of the story as he serves an important purpose and even helps the other animals in times of need. He is caring and nurturing towards all of the animals. RJ is seen making fun of Verne at the beginning by calling him an uncle, but it does not bother him. In the night scene that follows, he is seen saying good night to each of the animals, showing the love and appreciation he possesses for them (González, 2017).

The character of Verne is initially seen to be resistant towards the idea of venturing beyond the hedge into the unfamiliar territory. He is the clear patriarch of the group and constantly guides them against the various troubles of the wilderness (Bullen, E., & Mallan, 2011). Suburbia is completely new for the forest animals, and it is natural for Verne to be resistant towards the idea of going beyond the hedge and constantly being alert to any danger. As per the findings of Amen (2012), the anxious brain leads to a person becoming avoidant towards conflict; they constantly feel an angst that something bad is about to happen. Verne in the movie is also seen sensing something bad about to happen with his tai, which kept constantly tingling. The book shares that the anxious brain leads to the person constantly feeling tense and unsettled inside. The tense and panicky nature of Verne is symbolic of the anxious brain. He is also seen to overcome this problem when the safety and needs of his family are in line, he suffered from the guilt of destroying all of the food stolen by the forest animals and therefore helped RJ and the others to carry out the plan and regain all of the lost items.

Hammy - Impulsive Brain



Over the Hedge Wiki. (n.d.). Hammy [Screenshot]. *Fandom*. <https://hedgecomic.fandom.com/wiki/>

Hammy is the third significant character of the movie, he is presented as a hyperkinetic squirrel; he is fast-talking and very active. He is also the first person to discover the hedge, Hammy has a far greater taste for junk than any of the other forest animals (Peabody, 2006). Hammy is impulsive right from the start, as he is shown to be emotional when Verne calls him and the other forest animals stupid, but instantly forgives Verne when he apologises. Though the message of the movie has been against overconsumption, all of the characters are seen to indulge in their bodily pleasures. Hammy enjoys the caffeine drink, which sends his body into a drug-induced frenzy. He is also shown to love the nacho corn chips. Hammy is seen to struggle with focusing on a single task as well, he easily gets distracted by a cookie on the terrace after they started to carry out the final heist. RJ is seen to keep him focused with a red laser beam (Hinkins, 2007). In the end, it is also Hammy who ends up saving all of the animals from getting caught by Vincent or the exterminator. He sets off different dangerous traps in Gladys' garden, which causes an explosion and saves the animals (Hindersson, 2023).

The character of Hammy can be associated with the impulsive brain, as he is shown to always be restless. The over-focused brain has resulted in obsessive concentrations and behaviours that are sudden. Hammy is focused on the cookie instead of the task of disconnecting the protection on the backyard shows impulsivity. Hammy's impulsive nature differs from that of RJ as he is not deceitful and does to manipulate the other animals; he is more careless. Amen (2012) has described this type of brain as lacking impulse control and struggling with attention. Hammy does not think before acting and is, therefore, one of the biggest flaws of the character. Amen has suggested impulsive brain is unhealthy and the need for proper exercise to calm down and act reasonably. Hammy's brain is scattered as he is constantly motivated by different elements, and his thrill-seeking nature is

used by RJ to his advantage to carry out his raids on the suburb. Although the character of Hammy does not share new insight, he shows the differences in impulsivity of the brain and how it affects people differently.

Stella - Temporal Lobe Brain



Over the Hedge Wiki. (n.d.). Stella [Screenshot]. *Fandom*. <https://hedgecomic.fandom.com/wiki/>

Stella the skunk is one of the minor characters of the movie; she is shown as a character who is quick to anger and often resorts to sarcasm. Stella plays an important part during the heist as she has been tasked with seducing the Persian house cat. The forest animals help in transforming Stella from a skunk to a cat, the seduction works out, and Stella falls in love with the cat, and they both develop a romantic relationship (Ebert, 2006). At the end of the movie, the house cat is seen leaving its home to be with Stella in the forest. The character of Stella is associated with temporal lobe dysfunction as she is quick to anger and suffers from mood swings and occasional outbursts. Amen (2012) has associated these characteristics with the temporal lobe brain, although individuals with the condition are thought to have suffered from some form of brain damage. This leads to mood instability and trouble in reading or understanding social cues. Temporal lobe problems are known to lead to resistant depression, which causes an increased activity on the anterior cingulate gyrus and the deep limbic system. Amen also believes that it is caused by an increase in activity on the outside of the right temporal lobe. In the movie, Stella is seen to snap at the cat when he does not appreciate her makeover and the other animals are shown to be worried about her reaction, but the cat appreciates her snarky attitude, and they can find love.

Ozzie - Sad Brain



Over the Hedge Wiki. (n.d.). Ozzie [Screenshot]. *Fandom*. <https://hedgecomic.fandom.com/wiki/>

Ozzie the possum is yet another minor character who falls under the small forest creatures. He is often seen arguing and battling with his daughter Heather, about the nature of possums. Ozzie is presented as a comic relief within the movie as he plays dead whenever he is faced with danger. He possesses a heightened sensitivity towards any form of threat. His act does not alert the others, but instead causes them to panic or feel sad for him. On the screen, he does not hide his true feelings much as he signs, showing his disappointment and his frantic pleas are also real. Ozzie is a well-rounded character who is shown to be dependent on his daughter for emotional anchoring. The character fits neatly into Amen's (2012) sad or moody brain hypothesis. The author believes that people with this form of brain often struggle with depression and negativity and possess low self-esteem. While Ozzie does not show traits of depression within the movie, he does have low self-esteem and a negative outlook on life. The character of Ozzie is not vulnerable and also possesses a significant amount of resilience as he is able to play dead at the time of need and make way for his friends to steal from the suburbia. There are often external factors of grief associated with this condition; however, a detailed backstory is not provided on Ozzie's wife and therefore not possible to know if there are any other factors affecting his condition.

Heather - Balanced Brain

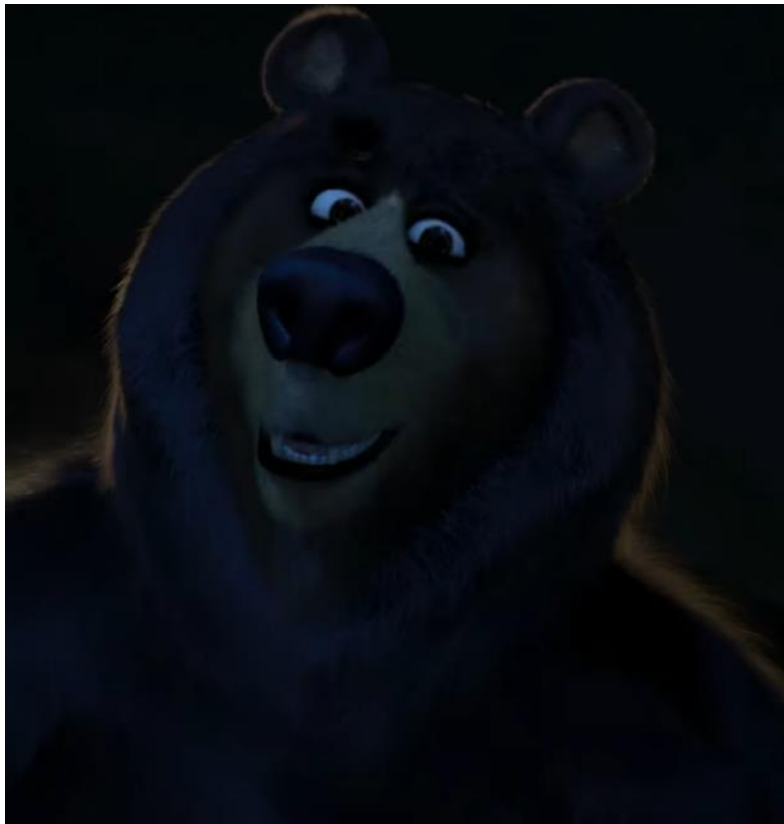


Over the Hedge Wiki. (n.d.). Heather [Screenshot]. *Fandom*. <https://hedgecomic.fandom.com/wiki/>

Heather, the possum the most stable character in the movie; she is always present for her father and provides him with genuine support and insight. Although Heather at the beginning of the movie does not agree with her father's theatrics of playing dead, she eventually caves and plays dead during the heist, which provides the other animals with some more time while Gladys calls for the exterminator, making her father proud. She is unlike the other characters in the forest, she does not possess the impulsiveness of RJ nor the anxiety and cautiousness of Verne. The empathic nature of Heather allows her to befriend RJ instantly and help the group whenever needed. She defuses tension and speaks to the characters calmly during times of need to defuse the tension and encourage them to reduce conflict. Heather possesses a healthy and well-balanced brain, which Amen (2012) refers to as the limbic brain. In his book, Amen has shared that having this form of brain is highly beneficial as it utilises the prefrontal cortex and results in improving the focus, mindfulness and judgement of the individual. The thought process is improved with this form of brain type. The limbic brain does not require external motivators, as it is able to keep itself motivated. The lymphatic system represents the emotions of a person based on the stored memories. A balanced brain can automatically understand and respond to the different triggers. Heather possesses all of these characteristics within the movie as she channels her empathy whenever needed and supports characters

such as RJ, Verne or her father, Ozzie. The limbic brain kills negative emotions and thoughts and replaces them with positive thought processes.

Vincent - Temporal Lobe Brain



Over the Hedge Wiki. (n.d.). Vincent [Screenshot]. *Fandom*. <https://hedgecomic.fandom.com/wiki/>

Vincent is the prime antagonist of the movie, is menacing bear who wakes up to find RJ stealing all the food that he had stored before hibernating. Though the character only appears twice in the movie, his presence is ever-present due to RJ's anxiety of not being able to get all the food ready in time. During multiple instances, RJ is seen looking at his list and making sure he is getting all of the times that are required by Vincent. RJ was mad at Verne when he decided to return all the food to the humans, as he could only think of the consequences he would face if he were not able to return all of the stolen food in time. The behaviour of Vincent at the beginning and the end of the movie shows uncontrolled anger, impulsiveness and obsession. He chases RJ and his friends from the cliff to the streets and to the hedge, where they are finally caught by the wildlife control and sent for rehabilitation. Based on these characteristics, it can be hypothesised that Vincent possesses the Temporal Lobe brain, due to his anger and fixation on killing RJ for not delivering the food on time. Amen (2012) has shown that dysfunction of the temporal lobe can cause mood instability and temper problems. Both of which can be seen within the character. Vincent possesses poor judgment and lacks empathy. When the forest animals are all captured, he laughs and even congratulates RJ for betraying his friends to fulfil his personal interests. The violent nature of Vincent personifies the ill-tempered, emotionally volatile individuals in Amen's tests who do not have any form of control over their reaction.

Emotional Transformation and the Pursuit of Happiness

In *Over the Hedge*, the contrasting themes are the emotional transformation of the characters and their pursuit of happiness. The movie has been analysed from the perspective of Daniel G. Amen and the different brain types which he has discussed in his book "*Change Your Brain, Change Your Life*." When introduced, each of the characters is shown to be instinctive and acting based on their understanding of their surrounding. Verne's anxiety and fear of change have been associated with the anxious brain; this nature of Verne constantly made him worry and fear the unknown. RJ at the beginning has also been shown to be impulsive, scheming and manipulative. The

underperformance of his prefrontal cortex has resulted in his being self-centred and acting selfish. Hammy's hyperactive nature has also been credited to his impulsive brain. Ozzie's sad brain and Stella's temporal lobe brain make all of these characters lean on external happiness to find fulfilment. Stealing food from the residents of the suburbia provided the characters with immediate reward and temporary satisfaction. However, the havoc these animals were causing on the neighbourhood had its consequences as the leader of the homeowner association hired an exterminator to get rid of all of the wild animals that crossed over the hedge to steal food from the dustbins and the kitchens.

The turning point for the animals comes when they kept venturing into the suburbs under RJ's manipulation and were faced with the different threats of the materialised world. The lawnmowers, different hazards and traps in the garden, the dog and Vincent the bear. The animals started to lose their sync, and it created tension between Verne and RJ. The real transformation among the characters takes place when they start to lean on one another during their escape from the van of the exterminator. When Vincent compares RJ to himself, he is filled with guilt and fear for his friends. He transforms to protect his friends, which aligns with the findings of Amen. In his book, Amen has shown that the different mental conditions and types of disorders can be readjusted when the individual experiences a deep emotional connection. Simultaneously, the other characters also transform. When Verne sees RJ's genuine intentions to help his group of friends, he encourages the others to let him in and allow him to redeem himself. Stella and Heather also transform the movie; Stella learns to love, while Heather learns to value the teachings of her father. In the final act of Ozzie also becomes heroic as his dramatic playing dead becomes a deliberate protective strategy to protect all of the other animals.

The superficial pursuit of happiness, which RJ manipulated the forest creatures to go through, also ends at the end of the movie. The animals forsake their quest for human junk food and return to nature. Amen in his work has constantly argued that true happiness does not come from external gratification but rather but boosting attention, emotional connection and reduction of stress. Creating one's happiness is highly necessary as it allows an individual to set personalised goals that are reachable. Strong relationships, according to Amen, are linked to health, happiness and success. A well-regulated brain is able to provide itself with nourishment, and the positive relationship that the forest animals share with themselves becomes their ultimate key towards achieving happiness. The collective transformation of the characters changes them from fearful individuals to having individual purpose and agency. The animals get back to the same forest from which they emerged, but with emotional maturation and newfound knowledge, which will be beneficial for them to navigate their new journey. The pursuit of happiness is therefore revealed to be an inward journey for each of the characters; they have to face their crisis to learn and grow, and in the process, the relationship between the characters grows, and they become more resilient.

CONCLUSION

As concluding remarks for the present research, the study has carefully analysed Daniel G. Amen's framework on brain types and connected them with the emotional lives of diverse forest animals in the movie *Over the Hedge*. The impulsivity of RJ and Hammy, the anxiety of Verne, Stella's volatile nature and Ozzie's sadistic nature have all been connected with different brain types. Connecting the experiences and expressions of these characters with these diverse brain types also provides insight into their intentions and motivations. Nearly all of the characters of the movie undergo significant transformation as the movie progresses, understanding their brain types provides a deeper coherence for their condition. The article has carefully analysed the book "*Change Your Brain, Change Your Life*" written by Amen and the different brain types researched by the author. Drawing attention to each character and their brain type reveals the neural biases of the characters and the internal thought process which drives their action. RJ and Hammy's impulsivity has been determined to be driven by the lack of development of their prefrontal cortex. Verne's fear of trying new things has also been addressed within the research; his belief in following preset rules had initially prevented him from accepting RJ's ideals, but in the end, when RJ transforms into someone capable of showing selflessness, Verne changes his views and becomes more accepting towards him. The dramatisation of the emotional transformation of the characters and their growth under stress has been evaluated within the study to show the significance of their connection and the resilience of the characters. Amen's framework of prioritising internal satisfaction over external gratification has also been presented in the study. The movie "*Over the Hedge*" on the surface deals with many different social issues, such

as deforestation and commercialisation, but adopting Amen's framework has allowed the study to offer a new perspective to the story and showcase the emotional depth of the characters.

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