



ISSN: 2617-6548

URL: [www.ijirss.com](http://www.ijirss.com)



## Metaphors we think with: A psycholinguistic study of cognitive transformation in who moved my cheese?

 Ahmed A. Teleb<sup>1\*</sup>,  Amany H. Mohamed<sup>2</sup>,  Adel S. Abbady<sup>3</sup>,  Ahmed S. Abdelmagid<sup>4</sup>,  Asem M. Ibrahim<sup>5</sup>

<sup>1,3</sup>Department of Psychology, College of Education, King Khalid University, KSA.

<sup>2</sup>English Department, Faculty of Arts, New Valley University, Egypt.

<sup>4</sup>Department of Educational Technology, College of Education, King Khalid University, KSA.

<sup>5</sup>Department of Curriculum and Teaching Methods, College of Education, King Khalid University, KSA.

Corresponding author: Ahmed A. Teleb (Email: [mmahmod@kku.edu.sa](mailto:mmahmod@kku.edu.sa))

### Abstract

This study investigates the role of conceptual metaphors in shaping cognitive transformation in Spencer Johnson's *Who Moved My Cheese?*, using Conceptual Metaphor Theory (CMT) developed by Lakoff and Johnson [1] as a framework. It aims to explore how metaphorical language mirrors and shapes the characters' psychological responses to change. The methodology integrates both qualitative and quantitative analyses, identifying various types of metaphors (structural, orientational, ontological, and personification), and exploring the use of modal verbs and conditional clauses to differentiate the speech patterns of the characters. The findings reveal that characters who use direct and decisive language, such as Sniff and Scurry, demonstrate greater adaptability to change, while those who rely on uncertain expressions, like Hem and Haw, exhibit cognitive resistance. The study concludes that metaphors serve not just as stylistic devices but as cognitive tools that shape thought, emotion, and behavior, highlighting the essential role of language in facilitating personal growth and decision-making.

**Keywords:** Cognitive transformation, Conceptual metaphor theory (CMT), Psycholinguistics, Who moved my cheese.

**DOI:** 10.53894/ijirss.v8i5.10963

**Funding:** This research was funded by the Deanship of Scientific Research, King Khalid University, Saudi Arabia.

**History:** Received: 25 July 2025 / Revised: 31 July 2025 / Accepted: 12 August 2025 / Published: 27 August 2025

**Copyright:** © 2025 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

**Transparency:** The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

**Acknowledgment:** The authors extend their appreciation to the Deanship of Research and Graduate Studies at King Khalid University for funding this work through Small Research Project under (Grant Number RGP1/102/46).

**Publisher:** Innovative Research Publishing

## 1. Introduction

### 1.1. Background of "Who Moved My Cheese?"

*Who Moved My Cheese?* is a widely known parable written by Johnson [2]. The story is set in a Maze where four imaginary characters search for "Cheese". The four characters are the mice: "Sniff" and "Scurry," and the little people: "Hem" and "Haw". The mice, Sniff and Scurry, used a simple method for finding the cheese whereas the little people Hem and Haw attempted to use logic to find a sophisticated strategy to get the cheese. Both mice and the little people place their favorite type of cheese at the end of one of the passageways in Cheese Station C. One morning, the mice come to Cheese Station C and notice that there is no cheese. They aren't shocked. Since Sniff and Scurry picked up the supply of cheese decreasing every day, the mice are ready for and know what to do.

Hem and Haw, who have not noticed the daily changes, refuse to accept that the cheese is gone. While Haw suggests looking for New Cheese, Hem rejects the idea. Sniff and Scurry inspire Haw to search again, but Hem sticks to his comfort zone. As they have no cheese, both grow weaker. Eventually, Haw decides to stay alert for change. Hem later finds Cheese Station N, full of new cheese, and sees Sniff and Scurry. He thinks of returning to help Haw but realizes that Haw must choose his way to overcome his fears.

### 1.2. Importance of Language and Metaphor in Shaping Thought

Communication depends on language and thought [1, 3, 4]. Language is a creative activity and metaphors help us understand complex topics and shape our thoughts [5]. For example, calling a challenge, an "opportunity for growth" may promote a positive outlook, but labeling it a "problem" may create a negative sense. Positive language provokes motivation and hope whereas negative words cause a sense of sadness and depression. On the other hand, strict language leads to unwillingness to accept change.

## 2. Review of Literature

Recent research has expanded the scope of metaphor analysis to include cross-cultural differences, educational methods, and computational modeling. A notable contribution by Ahrens, et al. [6] was the development of an ontology-based framework for the systematic analysis of metaphorical mappings, which emphasizes the computational benefits of identifying and categorizing metaphors. They investigated the connections between words tied to different ideas, analyzing 2000 metaphorical instances of the word 'economy' in Chinese. Utilizing the Suggested Upper Merged Ontology (SUMO) system, they identified patterns within metaphorical mappings across source and target domains. Their findings indicated that metaphorical structures are systematic rather than random, adhering to specific rules that can be automated [6].

Based on the cognitive foundations of Conceptual Metaphor Theory (CMT), Li [7] explored the application of Conceptual Metaphor Theory (CMT) in the instruction of English and Chinese idioms. This study emphasizes the cognitive perspective that metaphors significantly influence our thoughts and language. The research categorizes idioms into three types: structural, orientational, and ontological. The conclusion drawn is that employing CMT in teaching these idioms is effective, as it enhances students' understanding and retention of the material [7].

Similarly, Lv and Zhang [8] examines the universality and cultural variations of conceptual metaphors related to love in English and Chinese through a cognitive-linguistic lens. Love, as a universal emotion, is metaphorically represented in diverse ways influenced by cultural differences. The authors reveal that although the structures of these metaphors are commonly shared across cultures, they are also distinctly shaped by specific cultural contexts [8].

In the educational setting, Çakır [9] explores the application of Conceptual Metaphor Theory (CMT) in teaching English as a foreign language by examining metaphorical expressions with body part terms (BPTs). The study analyzes five best-selling English books and their Turkish translations, revealing that Turkish versions often use non-literal BPTs that align with local cultural norms. This underscores the need for a cross-linguistic perspective in language instruction and demonstrates how cultural context shapes metaphorical interpretation [9].

Further, Pratiwi, et al. [10] analyze conceptual metaphors in Lang Leav's poetry using cognitive semantics, guided by Evans and Green [11] and Lakoff and Johnson [1]. They categorize metaphors as structural, orientational, and ontological, identifying key image schemas such as identity, existence, container, and space. Their findings reveal that the dominant themes in Leav's work revolve around love and life, highlighting how these metaphors enhance readers' emotional engagement and understanding of poetry [10].

Most recently, Lin [12] examines Conceptual Metaphor Theory (CMT) as a cognitive framework that aids individuals in understanding and interpreting the world. The research focuses on the metaphor "Love is a journey," investigating how the mind links ideas, blends concepts, and incorporates past experiences in shaping our discourse about love. While some critics question the universality of this theory, calling for more empirical evidence, the study offers a fresh perspective on metaphorical concepts of love and their cognitive effects [12].

Despite these theoretical and applied advancements, few studies have addressed the role of metaphor in facilitating cognitive transformation in real-life contexts of change. To address this gap, the current study applies CMT to *Who Moved My Cheese?* by Spencer Johnson, interpreting the narrative as a metaphorical account of psychological adaptation. This study offers a novel psycholinguistic lens on how metaphor shapes behavior, thought, and emotional response during personal transformation.

### 3. Theoretical Framework

#### 3.1. Conceptual metaphors: the cognitive basis of language

The conceptual metaphor theory was proposed by Lakoff and Johnson [1]. Lakoff and Johnson present a powerful theory of how thought and language work together. They explore how our cognitive processes influence language. Unlike figurative metaphors (decorative elements in poetry), conceptual metaphors are more subtle and more systematic in scope. When we describe 'time is money', we map the concept of time as abstract onto concrete. This metaphor influences our understanding of the value of time, making us think of money as a limited resource that can be 'saved', 'spent', or 'wasted'.

Metaphor exists in our daily life. Our conceptual system is metaphorical in nature "Our concepts structure what we perceive, how we get around in the world, and how we relate to other people" [1]. Our conceptual system is responsible for defining our realities. It guides our actions, thoughts, and communication. The speaker "puts ideas (objects) into words (containers) and sends them (along a conduit) to a hearer who takes the ideas (objects) out of the word/containers". Metaphorical concepts can be figurative. Thus, if ideas are like objects, "we can dress them up in fancy clothes, juggle them, and line them up nice and neat" [1].

#### 3.2. Types of Metaphorical Concepts

##### 3.2.1. Structural metaphor

When "one concept is metaphorically structured in terms of another" (p14). For example, when we say 'argument is war', we win or lose an argument, we see the person we argue with as an opponent. We attack and defend opinions gaining and losing ground, if the position is defensible, we leave it searching for another to attack. When we argue, we have in our minds the concept of war (attack, defense, counterattack...etc.). While argument is not a physical battle but a verbal debate, metaphor structures the actions involved in arguing.

If we imagine an argument in a culture that views it as a dance, not a battle where there is no attacking or defending in such a case the participants are performing in a pleasing and harmonious way. In such a culture, people view and experience culture differently. When we describe it, we can say that we have a discourse type structured in terms of a battle and they have a different discourse form structured in terms of a dance.

As Lakoff and Johnson [1] state, the core of metaphor is understanding and experiencing one thing in terms of another. Here arguments and war represent different actions; an argument is a verbal debate while war is an armed fight. Yet, the concept of argument is metaphorically structured in terms of war. This metaphor is not in the words people use about argument but within the conceptual structure. Consequently, we find the language of the argument more literal 'not poetic or rhetorical. Human thinking is metaphorical as metaphors are embedded in the individual's conceptual system. The combative aspect of arguing is systematic; the linguistic expressions we use (attack a position, strategy, win, gain ground ...etc.) are all metaphorical. The metaphorical aggressive aspect of an argument keeps us away from other aspects like the cooperative aspect of arguing.

##### 3.2.2. Orientational metaphor

An orientational metaphor is a type of metaphor that organizes a whole system of concepts based on spatial orientation such as up-down, in-out, front-back, on-off, deep-shallow, and central-peripheral. This type of metaphor has a basis in our physical environment. For example, "Happy is Up, Sad is Down" illustrates how a drooping posture goes along with a negative emotional state while an erect posture with a positive one. These spatialization metaphors arise from physical and social experiences where happiness is associated with smiling.

Understanding how the metaphors that do not fit together function depends on the role of their experiential basis. For example, the metaphor "I could not grasp his explanation" has an experiential basis that understanding is grasping. Physically, when you grasp an object, you examine it more carefully than if it is flying through the air. Thus, unknown is up and known is down aligns with understanding is grasping.

##### 3.2.3. Ontological Metaphors

Ontological metaphors are used to comprehend events, actions, activities, and states. How the person views things and events. Ideas, emotions...etc. as entities and substances. Example:

Mind is a machine

We are still trying to grind out the solution to this equation

My mind is not operating today

Boy, the wheels are turning now!

These metaphors give us the impression that the mind is in an on-off state, and operates like a device. Ontological metaphors have a limited range of purposes such as referring, quantifying, identifying aspects and causes, and setting goals and motivating actions.

##### 3.2.4. Personification

Personification is attributing human qualities to non-human objects picking out different aspects of a person's characteristics, motivation, and activities (e.g. Life has cheated me)

##### 3.2.5. Metonymy

Metonymy is "using one entity to refer to another that is related to it" [1]. In the example "the ham sandwich is waiting for his check", the 'ham sandwich' refers to the person who ordered the ham sandwich. Metaphors and metonymy

are different processes; metaphor is conceiving one thing in terms of another for understanding while metonymy has a referential function as one entity stands for another and also provides understanding.

We need some good heads on the project (intelligent people)

We need some new blood for the organization (new people)

'head' refers to intelligent people, it is picked as part of the body because intelligence is associated with the head. Metonymy is not random or arbitrary, metonymic concept is systematic like metaphor.

#### 4. Research Questions

- 1.1.1. What is the role of conceptual metaphors in 'Who Moved My Cheese?' in shaping the character's cognitive processes and behavior in response to change?
- 1.1.2. How do the contrasting metaphorical structures of the mice (Sniff and Scurry) and the little people (Hem and Haw) illustrate the different strategies of problem-solving and adaptability to change?
- 1.1.3. How do the linguistic expressions of uncertainty (e.g., modal verbs, conditional clauses) in Hem and Haw's speech contradict the mice's decisive language?

#### 5. Methodology

In this study, quantitative and qualitative analyses are employed. Conceptual Metaphor Theory (CMT) proposed by Lakoff and Johnson [1] is adopted to identify and analyze metaphors in Spencer Johnson's Who Moved My Cheese? The analysis categorizes the contrasting metaphorical structures used by Sniff and Scurry (Mice) versus Hem and Haw (Little People). The data is tabulated to highlight the cognitive difference including linguistic analysis of modality and conditional clauses. Furthermore, the AntConc program is used for frequency analysis.

#### 6. Metaphorical Mapping of "Who Moved My Cheese"

##### 6.1. Structural Metaphors

###### 6.1.1. Cheese as success

Cheese represents man's goals, desires, and success in life. It structures man's aspirations in life. It also refers to an easy comfortable life.

*"Cheese is a metaphor for what you want in life - a good job, a loving relationship, money, health, peace of mind."*

*"One morning they arrived at the Cheese Station C and discovered there was no cheese"*

*"Who moved my Cheese?" he hollered*

**Table 1.**

Figurative Mapping of Cheese as a Symbol of Success in Life.

Source domain (Cheese)	Target domain (success in life)
Cheese is tasty and necessary	Success is desirable in life
Cheese is located in Cheese Station C	People seek stability in life
Cheese suddenly disappeared	Unexpected changes occur in life

###### 6.1.2. Maze as Life's Journey

Seeking goals requires facing challenges and obstacles the person finds in his way. The maze structures the external world and the personal and professional journey of a man in life. Dark corners, corridors, chambers, and blind alleys are obstacles and challenges people face in life.

*"The Maze is where you look for what you want."*

*"The maze is a complex place full of challenges and opportunities."*

*The Maze was a labyrinth of corridors and chambers, some containing delicious cheese. But there were also dark corners and blind alleys leading nowhere.*

**Table 2.**

Conceptual Metaphor of the Maze as Life's Journey.

Source domain (Maze)	Target domain (life's journey)
corridors, chambers	Complexity of life
Dark corners and blind alleys	Failure to achieve goals
Some chambers contain delicious cheese	Achieving success

###### 6.1.3. Fear as a barrier

Fear prevents actions and hinders embracing new opportunities. Hem's fear symbolizes the fear of failure. Fear is an emotional barrier that causes immobility and inaction.

*"What would you do if you weren't afraid?"*

*"As time went on he began to wonder if it was realistic".*

*"He was happy when he was not being run by his fear".*

*"As he tried to find his way, Haw worried, at first that he might have waited too long".*

*"You can believe that a change will harm you and resist it"*

*"He began to imagine all kinds of frightening things that could happen"*

**Table 3.**

Symbolic Representation of Fear as a Psychological Barrier.

Source domain (Fear)	Target domain (Fear in life)
Imagining frightening things	Psychological effects of fear
Wondering if waiting for change is long	Man's doubt of his ability to succeed after a long time of inaction
Happiness when he was not being run by his fear	Man's growth when not controlled by fear

**6.1.4. Letting Go as Movement**

The idea of letting go structures mental and physical movement, which helps the person, fulfill his aims. The metaphor highlights the necessity of not clinging to the past and embracing new opportunities. Haw's decision to leave Cheese Station C and venture into unknown areas symbolizes courage and taking risks.

*"The quicker you let go of old Cheese, the sooner you can enjoy new Cheese."*

*"It was not the change that mattered, but how he responded to it."*

*"Haw was wondering, 'Why did not I get up and move with the cheese?, sooner'"*

*"No, it isn't" Haw argued. "We've run through many parts of the Maze before, and we can do it again."*

**Table 4.**

Metaphorical Schema of Letting Go as Movement and Adaptability.

Source domain (Letting go)	Target domain (Movement)
Letting go of Old Cheese	Mental flexibility
Wondering if waiting for change is long	Man's doubt of his ability to succeed after a long time of inaction
Moving with the cheese	Taking risks in life
Happiness when he was not being run by his fear	Man's growth when not controlled by fear
Running through many parts of the maze	Searching for new opportunities

**6.1.5. Running shoes as Readiness for change**

The mice used to keep their running shoes hung around their necks to be prepared for any change is a metaphor for the importance of readiness for change.

*"Every morning, they each put on their jogging suits and running shoes, left their little homes, and raced out into the Maze looking for their favorite cheese."*

**Table 5.**

Conceptual Metaphor of Running Shoes as Readiness for Change.

Source domain (Running Shoes)	Target domain (Readiness)
Keeping running shoes around their necks	Being prepared for the change in life plans.
racing out into the Maze looking for their favorite cheese	Man's endeavor for success

**6.1.6. Slippers as a metaphor for comfort**

Hem and Haw wear slippers at the cheese station to feel comfortable. The slippers are a metaphor for comfort and change resistance. Hem and Haw do not like to venture out into the maze.

*"As soon as Hem and Haw arrived at Cheese Station C each morning, they settled in and made themselves at home... put away their running shoes, and put on their slippers. They were becoming very comfortable now that they had found the Cheese".*

**Table 6.**

Symbolic Metaphor of Slippers as Comfort and Resistance to Change.

Source domain (Slippers)	Target domain (Comfort)
Putting on their slippers	Love of comfort and relaxation
They were becoming very comfortable	Man's love of security and familiarity

**6.1.7. Cheese Station C as a comfort zone**

The Cheese Station C symbolizes the comfort zone or the familiar situation in which the individual feels safe and secure. It structures the danger of relying on a single source in life.

*"One morning they arrived at Cheese Station C and discovered there was no cheese."*

*"It wasn't long before Hem and Haw regarded the Cheese they found at Cheese Station C as their cheese."*

*"They took it for granted their Cheese would be there. They were unprepared for what they found."*

**Table 7.**

Figurative Interpretation of Cheese Station C as the Comfort Zone.

Source domain (Cheese Station C)	Target domain (comfort zone)
Discovering that there was no cheese	Individual's unpreparedness for change
Regarding cheese as their own	Man's love of safe source

6.1.8. *Decorating the walls as a metaphor for ritualizing comfort*

Hem and Haw decorated the walls with writings and drew pictures. These writings symbolize attaching to routine.

*"He wrote on the wall what he had been thinking about for some time"*

*"He drew a large piece of cheese around all the insights he had become aware of, and smiled as he looked at what he had learned"*

Table 8.

Metaphorical Representation of Decorating the Walls as Ritualized Comfort.

Source domain (Decorating the walls)	Target domain (Ritualizing comfort)
Writing on the wall	Attaching comfort to man's routine
Drawing a large piece of cheese	Lessons and insights learned from experience

6.1.9. *The mice's trial-and-error method is a metaphor for simplicity*

Unlike the little people who overanalyze and complicate the situation, the mice act purely on their instincts and venture into the maze looking for new cheese. They used a straightforward approach moving quickly to another area in the maze.

*"The mice, Sniff and Scurry, used the simple trial-and-error method of finding cheese. They ran down one corridor, and if it proved empty, they turned and ran down another. They remembered the corridors that held no cheese and quickly went into new areas".*

Table 9.

Conceptual Mapping of the Trial-and-Error Method as Simplicity in Problem-Solving.

Source Domain (Trial-and-Error Method)	Target Domain (Simplicity)
Running into new areas in the maze	Searching for alternatives in life
Quick movement	Quick decision
Empty corridor	Failure

6.1.10. *The Little People Complex Method as a Metaphor for Overthinking*

As people, Hem and Haw are guided by their minds. They relied on sophisticated methods of overthinking and rationalizing the disappearance of cheese. They believe that the cheese will last. Their minds are clouded by fear and confusion. Their arrogance drives them to make a hole in the wall of the Cheese Station C; a metaphor that structures the futile effort and resistance. Here the image schema is that the brain is a container of ideas and beliefs.

*"Hem and Haw... relied on their complex brains to develop more sophisticated methods of finding Cheese."*

*"Hem and Haw, used their complex brains, filled with many beliefs and emotions, to search for a very different kind of Cheese."*

*"Hem analyzed the situation over and over and eventually his complicated brain with its huge belief system took hold."*

*"Why did they do this to me?"*

*"His old thinking had been clouded by his worries and fears."*

Table 10.

Figurative Schema of the Complex Method as Overthinking and Inaction.

Source Domain (Complex Method)	Target Domain (Overthinking)
Complex brains	Complex reasons for inaction
Analyzing over and over	Overthinking
Thinking clouded by worries and fear	Psychological barriers

6.2. *Orientational Metaphors*6.2.1. *Up and Down*

In *Who Moved My Cheese?* emotional states are metaphorically structured through up and down movements as a reflection of personal growth (up) or depression (down)

*"Haw was losing his physical strength. He knew he was lost"*

*"The little people were growing weak from hunger and stress"*

*"Hem became more anxious and wondered if he really wanted to go out"*

*"Haw started to get depressed. What would happen if the Cheese wasn't there tomorrow?"*

'Losing physical strength', 'growing weak', 'becoming anxious', and 'getting depressed' implies a decline in energy and mood (down) because of resistance and fear of the unknown. We notice language transition in metaphor (up) after Haw embraces change as in the following quotes"

*"Haw was getting tired of just waiting for their situation to improve."*

*"Haw started to enjoy himself more and more."*

*"He had even found a better part of himself."*

*"He began to regain his strength."*

*"Haw even drew a picture of cheese around it, hoping it would help Hem to smile, lighten up, and go after the New Cheese"*

The source domain of the metaphor of weakness because of hunger is bodily perception and the target domain is the loss of motivation (abstract). Phrases like "enjoy himself more and more, 'found a better part of himself', 'regain his strength', 'smile', and 'lighten up'" indicate moving to a better emotional state, and an upward movement (personal growth).

**Table 11.**  
Orientational Metaphor of Up–Down as Indicators of Emotional States.

Source Domain (Up-Down)	Target Domain (Emotional State)
losing his physical strength, growing weak, becoming more anxious, getting depressed (down)	anxiety, loss of motivation, and unwillingness to act
Regaining strength, enjoying, smiling, lightening up (.up)	Positive thinking, motivation, and adaptability

### 6.2.2. Forward and Backward

Moving in the Maze represents growth whereas being in the same place symbolizes inaction.

*"Life moves on. And so should we."*

*"It seemed his progress was two steps forward and one step backward."*

*"Now he looked forward to finding more. Just looking ahead was becoming exciting"*

*"He considered turning back to Cheese Station C."*

*"He decided to go back and see if He was ready to join him."*

*"He knew it would be easy for him to slip back if he got too comfortable."*

*"Haw realized he had been held captive by his own fear. Moving in a new direction had freed him."*

*"He realized that when he had been afraid to change he had been holding on to the illusion of Old Cheese that was no longer there."*

*"He knew he needed to adapt faster, for if you do not adapt in time, you might as well not adapt at all."*

"Holding on" indicates staying in the same place (moving backward) "Adapt faster" represents moving forward with change "Slip back" represents returning to the old routine.

**Table 12.**  
Orientational Metaphor of Forward–Backward as Progress and Retreat.

Source Domain (Forward and Backward)	Target Domain (Progress or Retreat)
Looking forward, moving forward in the maze, and adapting faster	Taking action in life
Turning back to Cheese Station C, slipping back into old routines, and being captive by fear in the maze	Clinging to routine and fear prevents growth

### 6.2.3. In/Out Metaphors

Staying in Cheese Station C symbolizes being stuck in a comfort zone or a state of resistance to change which is depicted in 'in' metaphors which symbolize clinging to the comfort zone physically by staying in the same place.

*"They peered inside but found no Cheese."*

*"He could feel himself being drawn back into familiar territory."*

'out' spatial metaphors are associated with change and courage to face the unpredictable challenges in the outward world. This is illustrated in the following quotes from the story

*"Sniff would smell out the general direction of the cheese"*

*"Haw saw himself venturing out into the Maze with a smile on his face."*

*"He proceeded into the more unknown parts of the Maze."*

**Table 13.**  
Orientational Metaphor of In–Out as Resistance to or Acceptance of Change.

Source domain (In-out )	Target domain (Resistance or Change)
Peering inside Cheese Station C, drawing back into familiar territory	Fear of change
venturing out into the more unknown parts of the maze	Seeking new opportunities

## 6.3. Ontological Metaphor

### 6.3.1. Haw's Laughter

Laughter is a physical phenomenon that reflects psychological concepts. It is a marker of emotional growth.

*"Then he laughed and realized that he had started to change as soon as he had learned to laugh at himself and at what he had been doing wrong."*

### 6.3.2. Haw's Mental Image of New Cheese

Haw sees himself finding and enjoying New Cheese, he has an optimistic vision of the future. It is a metaphor for hope and motivation.

*"The more clearly Haw saw the image of himself finding and enjoying the New Cheese, the more he sees himself leaving the Cheese Station C"*

### 6.3.3. Empty Cheese Station

The empty cheese station symbolizes feeling disappointed and depressed when someone faces a problem.

"He was most disappointed to discover that the Cheese Station was empty."

### 6.3.4. The Cool Breeze

"Moving in a new direction had freed him. Now he felt the cool breeze that was blowing in this part of the Maze and it was refreshing."

The story includes other ontological metaphors that serve many purposes such as quantifying, identifying aspects, identifying causes, and setting goals:

"He wrote on the wall, knowing it was as much a reminder to himself." (Quantifying)

"Haw didn't know it, but he was running behind because he was still weighed down by fearful beliefs." (Identifying cause)

"He had to admit that being back in the Maze, hunting for Cheese, wasn't nearly as bad as he feared it might be." (Identifying aspect)

"It's time to find New Cheese." (Setting goals and motivating action)

**Table 14.**

Ontological Metaphors Depicting Self-Awareness, Hope, Disappointment, and Freedom.

Source domain	Target domain
Haw's Laughter	Self-Awareness
Haw's Mental Image of New Cheese	Hope
Empty Cheese Station	Disappointment
The Cool Breeze	Freedom

### 6.3.5. Personification

The mice are personified by having human-like qualities and behavior. They follow a routine; they have running shoes and slippers which they used to wear to feel comfortable in the cheese station. Although they have simple brains, they are capable of solving problems straightforwardly and adjust to change quickly.

## 7. Findings

An analysis of *Who Moved My Cheese?* Considering Conceptual Metaphor Theory (CMT) has shown that metaphorical structures are systematically affecting cognitive transformation. The mice (Sniff and Scurry) and the little people (Hem and Haw) have different cognitive strategies that are reflected in their metaphorical structures, modal verbs, and conditional clauses.

A metaphorical mapping of the story illustrates that conceptual metaphors are embedded in the characters' speech which reflects their cognitive state towards change. The frequent use of (would, could, and if) in the narrative signals' uncertainty and hesitation of Hem and Haw which can be illustrated in the following table:

**Table 15.**

Frequency of linguistic expressions of uncertainty (modal verbs/ conditionals).

Modal/ Conditional	Frequency	Function	Examples
Would	60	Hypothetical	"What would I do if I weren't afraid" Haw thought".
Could	54	Possibility	"He realized that change could lead to something better".
If	46	Conditional	"Hem became more anxious and wondered if he wanted to go out into the maze".
Can	23	Ability	"You can discover for yourself how to deal with change".
Should	18	Expectation	"He used to believe that cheese should never be moved and that change was not right".
Might	12	Weak possibility	"If you do not adapt in time, you might as well not adapt at all".
Will	8	Future intention	"I will do better when I can adjust to it quickly".
Whether	6	Alternatives	"He wondered for a moment whether it was real or just his imagination".
May	5	Probability	"He had believed that there may not be any cheese in the maze".
Must	2	Obligation	"I must admit I like this idea of seeing 'New Cheese' and imagining yourself enjoying it".

## 8. Discussion

When we study the metaphorical expression of a conceptual metaphor, literal meaning, figurative meaning, and the conceptual metaphor should be considered. Conceptual metaphors arise when trying to understand complex and abstract concepts [3]. They are rooted in our concrete bodily experiences, and influenced by the human's way of thinking and cognition [8]. The most frequent modal verb is 'would' mentioned (60 times) highlights the hypothetical scenarios that Hem and Haw draw in their minds reflecting their fear of any new step. The high occurrence of 'could' (54 times) indicates the



possibility of taking actions aligning with the conceptual structural metaphor 'fear as a barrier'. The word 'if' dominates the use of conditionals to signify hesitation and resistance to move beyond the comfort zone. On the other hand, the use of 'can' and 'will' denotes the inner struggle with fear. The less use of 'must' indicates that man has the option to stay or move. The shift from linguistic structures that express uncertainty to more decisive ones reflects the cognitive transformation of the characters, particularly Haw's transformation.

## 9. Conclusion

Metaphors are not only in language but also in thought. Spencer creates a new metaphorical mapping between dissimilar domains in *Who Moved My Cheese?* Abstract concepts like success, disappointment, and adaptation are conceptualized. The behavior of the characters reflects the metaphorical thought in our everyday life. Structural, Orientational, and ontological metaphors are based on a contextualization that life is a maze where you struggle to achieve success. The mapping is deeply structured. Abstract concepts correspond to objects and actions in a systematic mapping from a source to a target domain.

## References

- [1] G. Lakoff and M. Johnson, *Metaphors we live by*. Chicago, IL: University of Chicago Press, 1980.
- [2] S. Johnson, *Who moved my cheese? An amazing way to deal with change in your work and in your life*. New York: G.P. Putnam's Sons, 1998.
- [3] R. W. J. Gibbs, *The poetics of mind: Figurative thought, language, and understanding*. Cambridge, UK: Cambridge University Press, 1994.
- [4] L. Cameron, *Metaphor and talk*. In R. W. Gibbs Jr. (Ed.), *The Cambridge handbook of metaphor and thought*. Cambridge, UK: Cambridge University Press, 2008.
- [5] A. Ortony, *Language and thought*, 2nd ed. Cambridge, UK: Cambridge University Press, 1997.
- [6] K. Ahrens, S.-F. Chung, and C.-R. Huang, "Conceptual Metaphors: Ontology-based representation and corpora driven Mapping Principles," in *Proceedings of the ACL 2003 Workshop on the Lexicon and Figurative Language*, 2003.
- [7] X. Li, "Conceptual metaphor theory and the teaching of English and Chinese idioms," *Journal of Language Teaching and Research*, vol. 1, no. 3, pp. 206-210, 2010.
- [8] Z. Lv and Y. Zhang, "Universality and variation of conceptual metaphor of love in Chinese and English," *Theory and practice in language studies*, vol. 2, no. 2, pp. 355-359, 2012. <http://doi:10.4304/tpls.2.2.355-359>
- [9] C. Çakır, "Conceptual metaphor theory and teaching English as a foreign language: A study on body part terms," *Journal of Language and Linguistic Studies*, vol. 12, no. 2, pp. 253-279, 2016.
- [10] D. R. Pratiwi, E. T. S. Eva Tuckyta Sari Sujatna, and L. M. Indrayani, "A cognitive semantic analysis of conceptual metaphor in Lang Leav's poetry," *International Journal of English Literature and Social Sciences*, vol. 5, no. 4, pp. 936-940, 2020. <https://doi.org/10.22161/ijels.54.16>
- [11] V. Evans and M. Green, *Cognitive linguistics: An introduction*. Edinburgh: Edinburgh University Press, 2006.
- [12] Q. Lin, "Exploration of conceptual metaphor theory in cognitive linguistics," *Lecture Notes on Language and Literature*, vol. 7, no. 1, pp. 80-86, 2024. <https://doi.org/10.23977/langl.2024.070113>