

# Propositional Analysis of Emotive-Word Characters in Animation Movie

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**Abstract**— Propositional Analysis exposes words as not mere combination of phonemes, yet they represent one cognitive model over word choices. This paper suggests propositional structures of each emotive-word character and how they represent one's cognitive model through their concept of relations. In this qualitative research, Distributional and Identity methods were implemented to disclose the propositional structures on the subjects in the study. The results suggest one propositional structures; state proposition. It refers to a condition where the emotion of the character is exposed through the existence of linking verbs. However, in exposing the meaning components, event proposition may appear in the dependent clause. The state proposition then reveals some relations within the emotion words of the characters, and they further qualify the representation of one's cognitive model through the emergence of concepts and meaning properties in the lexical. These results can then be made as the basis in creating fundamental models of semi-automatic propositionalization in computational linguistics or word frequency studies.

**Keywords**— Propositional Analysis, Emotive-word Characters, Propositional Structures, Cognitive Model.

## I. INTRODUCTION

Analyzing propositional structure can ease readers in understanding the information provided through breaking down the highly complex structured categories of meaning and senses in the lexical or text [1] namely exposing the deep structure, the semantic unit consisting of concepts, of the text [2]. Propositional analysis can then mean a systematic phase intended to discover the meaning stored in the mental lexicon and the relation between lexical in the word or text [1, 2].

Previous study suggested that lexical items is said to be conceptual categories and can be measured with Idealized Cognitive—ICMs [1]. It explains that words are actually identifiable through various concepts inherent to the word itself. Other issue was said in Lakoff in [1] saying that lexical represents type of complex categories, named radial categories. This study is nearly similar in terms of words reciprocity; that the meaning of the words can be resulted from the association between words' concepts. Evans and Tyler [8] in [1] introduced Principled Polysemy that takes account on the issue that every words has distinct sense and prototypical. In addition to that, cognitive approach sees that going through this words of emotion is crucial in terms of how they not only depict one external state but also their innate concerns and how they relate [10]. Looking at their studies, it is clear that the focus relies greatly in the

discovery of distinct and specific sense of words. However, they do not extend the study to see the relation between every specific distinction of senses in each word.

Departing from that issue, this study focuses on exploring the meaning components and concepts as word's complex categories and at the same time reveals the relation between the senses. This study aims at exposing words' complex deep structure through propositional analysis. Not only that, the relation can also suggest particular mapping in each lexical under analysis.

## II. METHOD

To qualify this study, analytic-descriptive method was implemented [5]; saying that specific understanding between the topic and method shall be described. The data were selected from the names of the Characters in Inside Out Movie (2015) [9] since the names are emotive-words character; *Joy, Sadness, Anger, Disgust, and Fear*. In analyzing the lexical, Distributive technique [6] was implemented with the addition from meaning properties [2]. Simply saying, this technique qualifies that the determinant of the lexical meaning is the language itself.

The data were initially analyzed from its propositions in order to discover the meaning components of each word. From the meaning components, the concept for each lexical can be discovered through the relation between the elements contained in the proposition. From this proposition, the meaning components will lead to the concepts constructing the relation of the proposition as well as the cognitive mapping.

## III. RESULTS AND DISCUSSION

### Results

Anger, fear, surprise, sadness, joy, and disgust, are said to be to most widely accepted candidates for emotions [4, 12]. They are at the same time are also called as the *basic emotion* and are built as part of our neurophysiological make-up [4]. This is in line with the findings in this paper saying that the characters as the emotive words represent those emotion, namely: (a) Joy, (b) Sadness, (c) Anger, (d) Disgust, and (e) Fear as illustrated in Inside Out Movie. Those names represent lexical category of language. Therefore, it is obvious that all of them can be paraphrased into the State Proposition Relation [2] as illustrated in Table 1.

TABLE I. STATE PROPOSITION RELATION



TOPIC	RELATION	COMMENT
Joy	is	a character
Sadness	is	a character
Anger	is	a character
Disgust	is	a character
Fear	is	a character
THING	CLASSIFICATION	ATTRIBUTE

All those lexical items, the so called emotive words, are included in the state proposition since the central concepts is THING and the ATTRIBUTE [2] refers back to the central concept. Simply saying, the above emotive words, the characters, are all classified as NOUN since they are all distributed in the above clause as the Subject. Additionally, the inherent meaning of each word may refer to each character's basic nature; which contains ADJECTIVE. It is commonly acknowledged that adjective in English has the characteristics to attribute one's characteristic, or the NOUN. Therefore, it is crucial to disclose what concepts are carried by each character in its state roles through the addition of Event Proposition [2] in the ATTRIBUTE concepts.

The following Tables 2 to 6 illustrate the state proposition of each emotive-word characters under the discussion. Each table presents the TOPIC and COMMENT in every relation of state proposition. However, as stated above, the event proposition is located in the analysis of the ATTRIBUTE concept of each central concept, the emotive-word characters.

#### Discussion

As illustrated above, THINGS and ATTRIBUTE in state proposition are mostly expressed through verbs of *be* and *have*. State proposition consists of TOPIC that is related to its COMMENT [2]. The relation between the TOPIC and COMMENT comes in various state roles depending on the concepts contained in the lexical. The relation mentioned between the elements in the proposition is mapped through the analogies of attributive, relational, and system mapping [11].

TABLE II. STATE PROPOSITION RELATION IN "JOY"

a.	TOPIC	RELATION	COMMENT
	Joy	is	a state of happiness.[7]
	Joy	has	something that makes it happy

Both propositions share one inherent common idea, namely (a) HAPPINESS and (b) HAPPY. It is obvious that the noun in *a* is derived from the adjective in *b*. Therefore, it is clear that *Joy* carries the sense of happy situation. This suggests that *Joy* is somehow relates to a condition that can be illustrated in event proposition of *one feels happy about something*. This is what can be perceived from the similar ideas through the analogy mapping [11]. Talking about the condition that makes one happy, the concepts carried by the word *Joy* can suggest:

- Something very good is happening now.
- One wants this.
- Because of this, one feels something very good.
- One feels like this (*Joy*). [4]

The above concepts indicate that the feeling of *Joy* is unspecified, prototypical, present, and relational [4, 11]. Unspecified means that individual may have different forms of trigger for their feeling of joy. Additionally, this feeling is somehow prototypical due to similar concepts for the

triggering outcome, which is in any way relates to happy situation. Not only that, this feeling is also said to occur at present time; that it may happen suddenly. All relates to central concept of *Joy*. This concept is different from the feeling of happy in which the feeling originates from the previous past time trigger or action. To sum up, the topic *joy* is indicated to have the attributes that relate with *happy*. The relation between both concepts is the classification-depiction [2] concerning the central topic.

TABLE III. STATE PROPOSITION RELATION IN "SADNESS"

b.	TOPIC	RELATION	COMMENT
	Sadness	is associated with	expressive grief [7]
	Sadness	is	grieving

Sadness is directly related and affected with grieving situation, as suggested by the clauses in the above proposition [4]. It is now obvious that *sadness* carries negative sense of grieving as its triggering issue [11]. Though *sadness* can easily be related with *unhappiness*, they are indeed different in terms of their state of action; namely in their relation mapping [11]. When one is unhappy, one is actively dealing with and responding to the bad situation, whereas when one is grieving, one is relatively accepting the bad situation. Both *dealing* and *responding* carry the concept of action which then leads to event proposition. Additionally, *accepting* leads to particular action as well, so it is an event proposition too. This description leads to a modeled system mapping over this lexical [11]. The mapping may be suggested by the following concepts carried by the words *sadness*:

- One knows something bad happened.
- If one could, one would do something.
- One cannot do anything [4]

Departing from the propositional clauses above, the comment *grieving* is attributive [11] to the topic *sadness*. Therefore, the relation between the concepts in this state proposition is named for classification-description [2].

TABLE IV. STATE PROPOSITION RELATION IN "ANGER"

c.	TOPIC	RELATION	COMMENT
	Anger	is	a strong feeling of displeasure [7]
	Anger	is	usually antagonism

As indicated from the above propositions, *anger* has the main components of [FEELING of DISPLEASURE] over something and is [USUALLY ANTAGONISM] over the thing. This suggest that *anger* is an emotion that has the nuance of actively framing the mind towards the triggering issue [4, 11]. The word *framing* clearly indicates the existence of event proposition through the action happening in one's mind. Once the mind dominates so called 'one's conscious level', *anger* may reveal in action of different forms.

Additionally, the propositions also suggest that *anger* is resulted from continuous unpleasant conditions, as indicated by the components of *strong* and *displeasure* [11]. It can be noted that *Anger* is derived from the adjective *angry*, and when one is *angry*, one tends to act negatively over the condition that triggers the *anger*, as suggested by the components of *antagonism*.



Pressing back to the concepts carried by the above components, it can be indicated that the topic *anger* is identified from the continuous triggering issue in the comments. This continuous triggering issue has similar concept to that in the *framing* (event proposition). Therefore, the relation in this state proposition is called *classification-identification*.

TABLE V. STATE PROPOSITION RELATION IN "DISGUST"

d.	TOPIC	RELATION	COMMENT
	<i>Disgust</i>	<i>is</i>	<i>marked aversion aroused by something distasteful [7]</i>
	<i>Disgust</i>	<i>is</i>	<i>sign of dislike</i>

The propositions indicate that *disgust* is resulted from something that is said to be unpleasant. *Disgust* is an expression of feeling for something one does not like. Both concepts are resulted from the meaning components of disgust, as indicated in the propositions. This means that, perception mapping in cognitive approach is implemented in the description of the concept [11]. The existence of event proposition is marked through the word *aroused* in the COMMENT. The action suggested by this word is the emergence of one's particular behavior over something.

From the concepts carried by the components in each concept, it can be acknowledged that when one is involved in this emotion, as the topic in the state proposition, one is relatively becoming active over the subject that one dislike. In fact, one may reveal the expression of sudden hatred towards the subject. This is named as relational mapping in the cognitive approach [11]. Meaning that one behavior in this state emotion is somehow relates to the central concept of this lexical "disgust. One tends to think and act negatively toward something he does not like.

Departing from that description, it can be concluded that the topic *disgust* is identified further by the comments (the components and concepts of the meaning). This means that the system mapping in cognitive approach tends to lead to the identification of the main concept of the lexical [11]. Therefore, this state proposition is called as *classification-identification*.

TABLE VI. STATE PROPOSITION RELATION IN "FEAR"

e.	TOPIC	RELATION	COMMENT
	<i>Fear</i>	<i>is</i>	<i>a strong unpleasant emotion</i>
	<i>Fear</i>	<i>is</i>	<i>the emotion aroused by anticipation or awareness of danger [7]</i>

The meaning components in the proposition suggest that *fear* is kind of emotion resulted from the external trigger. The trigger is somehow realized by the surrounding environment, making one aware of the situation, usually dangerous or frightening situation. This is the creation arising from the concept of the lexical *fear*, therefore it is actually the process of perceptual mapping in the cognitive approach [11]. In addition to that, it can be inferred that the situation may have been continuously happening since one is becoming aware of the condition, repetitive occurrence that yields one fear. It means that, from this situation, one is becoming sensitive to the concepts carried by lexical *fear*. At this stage, this analogy mapping occurs is that of the relational mapping [11].

the COMMENTS in the above propositions carry not only the components of the topic, but also the senses in which this particular situation is happening. One is becoming anticipative and active in framing their mind over the situation. This stage of analogy is called the system mapping in cognitive approach [11]. Therefore, this description leads the state proposition into *classification-description* over the TOPIC.

#### IV. CONCLUSION

From the analysis, it can be concluded that the state propositions in this emotive-word characters are included in the classification relation. However, from each classification, the state proposition yields different qualification depending on the lexical since the lexical carries different concepts and meaning components. Additionally, despite the fact that state proposition is found in the emotive-word characters, event proposition can be found in its dependent clause; the clause modifying the TOPIC or the ATTRIBUTE of the state proposition mentioned. From the revelation of both propositions, analogies of attributive, relational, and system mapping were discovered. These mapping suggest one's cognitive preference that is actually illustrated through the emotive-word characters in Inside Out Movie. Simply saying, these characters are intended to mirror the characteristics of human emotion.

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