

# The Cognitive Relevance in Understanding Coronavirus Posters

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## Abstract

Relevance theory is a psychological model for understanding the cognitive interpretation of language. It was developed by Dan Sperber and Deirdre Wilson in 1986. Its main aim is that every utterance creates in the addressee an expectation of relevance. The underlying assumption of relevance theory is that in any given context, the addressee has to assume that what people say is relevant. In this paper, the relevance theory is approached in its application to the posters on Coronavirus. The analysis will be conducted to find out how these posters achieve successful communication and how is that the audience recognizes that the designer of each poster has something to say that matters, something that is relevant and how the addressee understands the content of these posters and how he/she uses their cognition to interpret the posters' contents and finds them relevant.

## Keywords

Dan Sperber, Deirdre Wilson, Coronavirus, Covid-19 Posters., relevance theory.

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## Introduction

Relevance theory may be seen as an attempt to work out in detail one of Grice's central claims, that an essential feature of most human communication, both verbal and non-verbal, is the expression and recognition of intentions (Grice 1989). In developing this claim, Grice laid the foundation for an inferential model of communication and an alternative to the classical code model. According to the code model, a communicator encodes the intended message into a signal which is decoded by the audience using an identical copy of the code whereas, in the inferential model, a communicator provides evidence of his/her intention to convey a certain meaning which is inferred by the audience based on the evidence provided. The goal of the inferential model is to explain how the hearer infers the speaker's meaning based on the evidence provided (Alakrash et.al 2021).

According to Sperber and Wilson, out of Grice's four maxims, speakers need only one maxim that is of relevance, which says that every utterance creates in the addressee an expectation of relevance. The underlying assumption of relevance theory is that in any given context, the addressee has to assume that what people say is relevant (Sperber and Wilson, 1986, p. 161).

This paper is devoted to applying the relevance theory presented by Sperber and Wilson (1986) to the posters designed to show Coronavirus pandemic images. The analysis will be conducted to find out how these posters achieve successful communication and how is that the audience recognizes that the designer of each poster has something to say that matters, something that is relevant and how the addressee understands the content of each poster and how he/she uses their cognition to interpret the content of each poster and finds it relevant.

### The Relevance Theory

Relevance theory, first proposed by Daniel Sperber and Deirdre Wilson in 1986 and republished in 1995, is a psychological model for understanding the cognitive interpretation of language. They (1995,p.193) say that conversational implicature is understood by hearers simply by selecting the relevant features of context and recognizing whatever speakers say as relevant to the conversation. When hearers and readers make sense of a text, they interpret the connections between utterances as meaningful, making inferences by drawing on their background knowledge of the world (Wilson & Sperber, 2008). This theory deals with the cognitive side of interaction and, as Sperber and Wilson (1986, p. 163) remark, it is "the realization that a trustworthy communicator intends to make you believe something is an excellent reason for believing it". Therefore, the purpose of communication, according to the relevance theory, is not to 'duplicate thoughts', but to 'enlarge mutual cognitive environment' (Sperber & Wilson, 1986). Relevance is based on a central claim that utterances automatically create expectations that guide the hearer towards the speaker's meaning. The relevance theory's main aim is to explain the well-recognised fact that communicators usually convey much more information with their utterances than what is contained in their literal sense, for example:

John is wearing a raincoat. His sister says: "It is sunny today".

The literal meaning is that the weather is sunny. The intended meaning is related to John. She maybe asks him to take off his coat! Typically, more conclusions can be drawn if the utterance contains information that is related to what the addressee already knows or believes. In this inference process, the "literal meaning" of the utterance is just one piece of evidence among others. This theory argues that the thing that causes input to stand out from others is its relevance to the receiver. The contextual effects of an assumption in a given context are not the only factor to be taken into account in assessing its degree of relevance. Contextual effects are brought about by mental processes, which involve, like all biological processes, a certain effort, a certain expenditure of energy; the greater the processing effort, the lower the relevance (Wilson & Sperber, 1986).

Wilson and Sperber (1986, p. 252) make these rules:

- (a) "a. Other things being equal, the greater the positive cognitive effects achieved by processing an input, the greater the relevance of the input to the individual at that time,
- (b) b. Other things being equal, the greater the processing effort expended, the lower the relevance of the input to the individual at that time."

Cognitively speaking, what we have is a cost/benefit analysis whereby the cost of processing is weighed against the possible positive cognitive benefits. So the greater the effect of an utterance, the more relevant it is. Similarly, the effects needed to be economically achieved (Al Hindawi & Abdulmajeed, 2017, p.21).

Sperber and Wilson (2006, p. 505), sum up these properties of verbal communication by calling it ostensive-inferential communication. It is characterised by two layers of intention on part of the communicator:

- a. The informative intention: The intention to inform an audience of something (to communicate certain content).
- b. The communicative intention: The intention to inform the audience of one's informative intention (to draw the audience's attention to one's informative intention)

## **The Basic Tenets of Relevance Theory**

Henst and Sperber (2006, p. 141-2) denote that relevance, as characterized in relevance theory, is a property of inputs to cognitive processes. These inputs include external stimuli (for instance utterances) and internal representations (for instance memories or conclusions from inferences that may then be used as premises for further inferences). When is an input relevant? An input is relevant to an individual when processing it in assumptions yields positive cognitive effects, that is, improvements to the individual's knowledge. These improvements may consist in the derivation of contextual implications, in the confirmation of uncertain assumptions, in the correction of errors, and also in the reorganization of knowledge to make it more appropriate for future use.

Yus (2006, p. 854) mentions that the following statements can summarize the basic assumptions of this theory:

- a. The decoded meaning of the sentence is compatible with some different interpretations in the same context.
- b. These interpretations are graded in terms of accessibility
- c. Hearers rely on a powerful criterion when selecting the most appropriate interpretation.
- d. This criterion makes it possible to select one interpretation among the range of possible interpretations, to the extent that when a first interpretation is considered a candidate matching the intended interpretation, the hearer will stop at this point.

## **The Main Principles of the Relevance Theory**

The relevance theory is divided into two sets of principles: Principle of Communication and Principle of Cognition.

### **Communicative Principle of Relevance**

In the Communicative Principle of Relevance, every utterance conveys a presumption of its optimal relevance. In interpreting an utterance, the hearer invariably has to go beyond the linguistically-encoded sentence meaning. There will be ambiguities and referential indeterminacies to resolve, and other under determinate aspects of explicit content. What's meant by optimal relevance is that any utterance is optimally relevant to the hearer just in case:

- (a) It is relevant enough to be worth the hearer's processing effort;
- (b) It is the most relevant one compatible with the speaker's abilities and preferences.

This means that the hearer is entitled to expect the utterance to be at least relevant enough to be worth processing, which means that the utterance should be more relevant than any alternative input available at the time as the speaker wants to be understood. It is, therefore, the speaker's interest is to make the utterance as easy as possible to understand, and to provide evidence, not just for the cognitive which affects the speaker aims to achieve in the hearer but also for further cognitive which affects by holding his attention, will help to achieve the intended goal. Speakers, however, are not omniscient and they cannot be expected to go against their interests and preferences in producing an utterance (Wilson and Sperber, 2002: 583-632).



## Cognitive Principle of Relevance

The cognitive principle is the hypothesis that cognitive systems tend to maximize relevance. Human cognition tends to be geared to the maximization of relevance (Sperber & Wilson, 1986, p. 260). The cognitive principle is the claim that human cognitive systems tend to work with their input in such a way as to yield the maximum cognitive benefit for the least mental effort. The cognitive systems include (at least) those that are centrally involved in perception; memory and reasoning as well as those that underpin the production and interpretation of utterances.

This spontaneous tendency to maximize relevance makes it possible to predict to some extent to which available stimuli people will pay attention to and how they will process them (Wilson, 2009, p. 245). The human tendency to maximize relevance makes it possible not only to predict some of the other people's cognitive processes but also to try to influence them—how indeed could you aim at influencing people if you had no way to predict how your behaviour would affect their thought? Cognition is a matter of computations over mental representations, and that human beings possess a 'deductive device' that plays a central role in spontaneous inference.

Wilson and Sperber (2006, p. 610) in their article 'Relevance Theory' discuss cognitive principle as: Intuitively, an input (a sight, a sound, an utterance, a memory) is relevant to an individual when it connects with background information he has available to yield conclusions that matter to him: say, by answering a question he had in mind, improving his knowledge on a certain topic, settling a doubt, confirming a suspicion, or correcting a mistaken impression.

In particular, a speaker must intend and expect that the hearer will pay attention to the utterance produced. If attention tends automatically to go to inputs that seem relevant enough to be worth processing, then it follows that to succeed, the speaker must intend and expect that the utterance to be seen as relevant enough by the hearer he/she is addressing. By the very act of speaking to him, the communicator, therefore, encourages the hearer to presume that the utterance is so relevant. Out of these two principles, the researchers are going to apply the cognitive principle on the posters selected for this study to be analyzed accordingly.

## The Model of the Analysis

The model of the analysis will be the two rules set by Sperber and Wilson (1986, p. 252) as follows:

- a. " Other things being equal, the greater the positive cognitive effects achieved by processing an input, the greater the relevance of the input to the individual at that time
- b. Other things being equal, the greater the processing effort expended, the lower the relevance of the input to the individual at that time."

What we have is a cost/benefit analysis whereby the cost of processing is weighed against the possible positive cognitive benefits. So the greater the effect of an utterance, the more relevant it is. Similarly, the effects needed to be economically achieved.

On these two rules, the present paper will depend to analyze the posters selected with their contents such as the themes, colours, portraits or figures of "Coronavirus" posters and the medical staff who somehow sacrifice themselves to protect humans beings. The moment the audience looks at these posters, they can infer the meaning of every single detail in them depending on their knowledge of the truth. The understanding of these meanings comes from the positive cognitive effects achieved by processing the input.

What the hearer/reader/audience will do is searching for meaning in any given communication situation in these posters and having found meaning that fits their expectation of relevance than the aims are fulfilled. The viewers of these posters will feel that utterances raise expectations of relevance because the research for relevance is a basic feature of human cognition which communicators may utilize.

## Description of the Data

The data of this paper is (4) posters selected from a different website that contain different ideas about Coronavirus. This virus is a pandemic spread all over the world. This virus causes diseases in mammals and birds (World Health Organization, WHO, 2019). In humans, Coronaviruses cause respiratory tract infections (2019-nCoV). It began in Wuhan, China and has spread rapidly

with cases now confirmed in multiple countries. It was classified by the (WHO) on the 11<sup>th</sup> of 2020 March as a global pandemic (BBC NEWS, March 11, 2020).

These posters convey the concept of increasing people's health awareness and alert them to the need to adhere to the prevention instructions to control Coronavirus. On the other hand, they show us how different societies present their thanks to the medical staff who in some way they sacrifice themselves for the survival of humanity.

## The Data



### First Poster: Coronavirus.

To preventing and reducing infection, health authorities all over the world make several decisions that obligate citizens to stay at their homes, but some of them refuse to stay safely at home and they violated the instruction because they were not aware of the severity of the virus. This poster shows Coronavirus in anger because this good family tides up the instructions of health and they obey the health instructions and stay safely and happily at their home to make fun of the Virus. The reason the virus is angry is that the family stays at home, thus it could not reach and hurt them. The relevance here is very clear between the drawing and the implicit meaning. Moreover, the virus is coloured by the green colour which in some cases symbolizes illness and upsetness. The communicative target behind this poster is clear to the audience in that it aims to enhance people aware of the importance of staying home until controlling this disaster.



### The Second Poster: Corona! Hhhhhhhh

As we mention in the first poster that some people were not aware enough of the danger that Coronavirus can cause until they found themselves on the brink of death. The audience needs no efforts to comprehend the relevant message in terms of compatibility with the communication abilities. As it is clear from the first glance that the guy in the first picture making fun of the virus and underestimate its fatality. In the second picture, the virus becomes bigger not only in size but

also in its dangerous attacks and because this guy does not pay enough attention to it as well. Finally, the audiences can note that how the virus becomes huge in its size to the extent that human beings cannot resist its catastrophic effects and eventually it becomes a pandemic spread all over the world and bigger than the human being's ability to control. The idea is that at the moment when people decide to underestimate the virus, it is the moment when the virus is out of control. The audience can also notice the expressions of fear on the guy's face and the speed with which he escapes from the virus, but there is a very short distance between the virus and the guy denoting that it is now too late to escape.



### The Third Poster: Superman

This poster portrays how the Chinese show their thanks to the Chinese medical staff! The designer of this poster uses the cartoon character "Superman" who stands in front of the medical staff and saluting them. The reason behind using this character is to send a message to those doctors and all the medical staff who have done a heroic job even Superman stands up giving them salutations. Moreover, there is a clear difference in size between the medical staff and Superman, This difference denotes the fact that what the medical staff provides outweighed the capabilities of Superman. Thus, they are stronger than Superman, in other words, the designer wants to say "you are our heroes."

The poster contains also pictures of an old man, a young man, a woman, a young boy, and a young girl. They refer to all the components of society who want to give their thanks to the medical staff. The audience can achieve a successful cognition of the message of this poster as if it is a conversation or non-verbal interaction. They can easily note that the medical staff feels proud of themselves because they raise their heads high.



### The Fourth Poster: Earth

This poster contains a man, whose head is in the shape of the globe, holding a golf stick and trying to push the big size of the virus into the small hole of a Golf ball. This indicates that the whole earth couldn't control the Coronavirus which has become much larger than the earth. The relevance here is very vivid expressing the world's inability to control the pandemic of Coronavirus which has become a global crisis.



## Results and discussion:

Relevance theory is a cognitive psychological theory. In particular, it treats utterance interpretation as a cognitive process. By analyzing the data of this paper; the posters of Coronavirus, the processing of input in the context of existing assumptions improve the individual's knowledge not only by adding a new piece of information, but by revising his existing assumptions, or yielding conclusions not derivable from the new piece of knowledge alone or existing assumptions alone. An input is relevant when and only when it has such positive cognitive effects. This positive cognitive reach the audience exposed to these posters. The results of the analysis show that "the greater the positive cognitive effects achieved by processing an input, the greater the relevance of the input to the individual at that time," and "the greater the processing effort expended, the lower the relevance of the input to the individual at that time." By applying the cost/benefit analysis, we find that the cost of processing the input derived from these posters weighed against the possible positive cognition benefit. The moment an audience looks at these posters, he/she can comprehend the meanings indicated by the designers of these posters depending on their relevant knowledge about what happens during the time of the spreading of the Coronavirus.

## Conclusion

As it is shown, the main assumption of the theory is that human beings are endowed with a biologically rooted ability to maximize the relevance of incoming stimuli including linguistic utterances and other communicative behavior. It is the second method of communication; the one that takes into account implicit inferences. It argues that the hearer/reader/audience will search for meaning in any given communication situation and find out the meaning that fits their expectations of relevance. The results of analyzing Coronavirus posters as the data of this paper show the applicability of the cognitive principle of the relevance theory on these posters by achieving successful communication and cognition processes. It is considered sufficient to achieve conversation or other verbal and non-verbal interaction.

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1<sup>ST</sup>, 3<sup>rd</sup>, 4<sup>TH</sup> Posters = <https://www.facebook.com/profile.php?id=100001930804520> Facebook  
(<https://www.facebook.com/profile.php?id=100001930804520>) Log in to Facebook |

Facebook login to Facebook to start sharing and connecting with your friends, family and people you know.

2<sup>ND</sup> Poster = 7<sup>th</sup> Day Kuwait Journal. ( 20 February 2020). URL<<  
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