Omayma Abdelfattah Rezk

A Relevance-theoretic Analysis of Customer Reviews on Facebook: A Cognitive Perspective

Author's Name: Omayma Abdelfattah Rezk.
Affiliation: Helwan University.
Academic Degree: Ph.D Candidate
Job Title: Teaching Assistant, English Department, Faculty of Arts.
Helwan University.

Abstract

Online customer reviews are a form of Computer-Mediated Discourse that takes place on the internet. This genre is a reflection of customers' in-hand experiences with different products and services. Customers communicate their ideas and opinions and attempt to make them manifest to reach as many people as possible on different online platforms. These platforms include specialized websites like Amazon.com and Alibaba.com, for instance. However, such reviews are also found on social media channels like Facebook and Twitter. To communicate their message clearly, customers employ various communicative strategies to describe their experiences with the various products and services in their reviews. This study aims at shedding light on this form of communication by applying Sperber and Wilson's Relevance Theory to reveal the cognitive operations that take place on the minds of customers while writing their reviews. Hence, a group of customers reviews, written on an Egyptian Facebook group, are analyzed to unveil the communication process from a cognitive perspective.

تحليل الصلة لآراء المستهلكين على فيسبوك: منظور معرفي

الملخص

إن آراء المستهلكين على الإنترنت هي شكل من أشكال الخطاب الذي ينشر على الإنترنت بوساطة الكمبيوتر، وهذه النوع هو انعكاس لتجارب العملاء مع المنتجات والخدمات المختلفة، حيث ينقل العملاء أفكارهم وآراءهم في محاولة لإظهارها للوصول لأكبر عدد ممكن من الأشخاص على منصات الإنترنت المختلفة، وهذه المنصات تتضمن مواقع متخصصة مثل موقعي أمازون وعلي بابا، ومع ذلك توجد مثل هذه الآراء على منصات التواصل الاجتماعي مثل فيسبوك وتويتر، ويقوم العملاء باستخدام استراتيجيات تواصل مختلفة لوصف تجاربهم بشكل واضح مع المنتجات والخدمات المختلفة، وتهدف هذه الدراسة إلى تسليط الضوء على هذا النوع من التواصل من خلال تطبيق نظرية الصلة لسبيربير وويلسون للكشف عن العمليات المعرفية التي تحدث في أذهان العملاء أثناء كتابة آرائهم، ومن ثم يتم تحليل مجموعة من تقييمات العملاء المكتوبة على إحدى مجموعات تطبيق فيسبوك باللغة العربية المصرية، وذلك للكشف للكشف عملية التواصل من منظور معرفي.

1. Introduction

Communication that takes place on the internet creates a level of challenge for both speakers and hearers, since it lacks face-to-face interaction that assists in making it manifest. One of the types of such communication is customers' reviews that are written in reaction to their experiences with different products and services. Customers attempt to communicate their intended meaning by employing various strategies in order to describe their experience to the fullest. To detect these communication strategies, this paper intends to apply Relevance Theory to show the cognitive processes that are involved in communication to reach customers' intended meaning in their reviews. Moreover, how these communicative strategies compensate the face-to-face interaction for the readers of the reviews.

1.2 Computer-Mediated Discourse (CMD)

Computer-Mediated Discourse (CMD) refers to "communication that takes place between human being via the instrumentality of computers" (Herring 1996, p. 1) The term is used interchangeably with Computer-Mediated Communication (CMC) by different scholars. While Androutsopoulos and Beißwenger (2008) define CMD in classificatory terms to refer to any discourse within online boarders, Crystal (2004) asserts that CMC focuses on the medium itself, preferring the term Netspeak to describe the language that is used on the internet. He considers it a language variety that has its unique features based on the situation where it is used. In the present study, CMD would be a more accurate term since it encompasses the different medium, dialogic and language aspects of the term.

Much research has been conducted on CMD to identify the language patterns and features that are employed by users in different media and in different contexts. Wilkins (1991) describes "Computer Talk" that employs a number of resources in computer-mediated exchanges among participants to maintain conversational topic and sequence of communication. These strategies include lexical repetition, cultural knowledge and paralinguistic features Lexical repetition plays the role of coherence creator. In a group of turns among participants, semantic coherence and inferential coherence are what make the flow of conversation connected. Wilkins (1991) pinpoints that repetition creates what he calls "connected graph" which makes the group of turns or 'entries' be called a conversation. The second resource is cultural knowledge which has its role in creating coherence that participant need to have the particular cultural common knowledge in order to be able to

have a connected conversation. Paralinguistic features are conventionally detected in spoken language; however, Wilkins identifies three strategies to achieve discourse unity through the use of such features. They include validation, involvement and disfluencies. Validation is accomplished through the use of names and previous lexical items to serve as "a contribution to the ongoing discourse" (p. 67) Involvement has three types: ego involvement (the use of first-person pronouns, for example), involvement with the hearer (using the name of the addressee or the second person pronouns) and involvement with the subject matter (through the use of vocabulary words to express the speaker's feelings, exclamation and vivid language). The last strategy is that od disfluencies where hesitations, false starts and stating after-thoughts are employed in conversation.

In his proposal of Netspeak, Crystal (2004) tries to identify the linguistic identity or what he calls 'systematic description of the features of Netspeak' (p.7) He presents a group of linguistic features of CMD: lexicon, graphology and grammar.

In her description of the linguistic structure of CMD, Herring (2015) observes the means through which internet users choose to convey their messages in a spoken-like written communication. She points out to the lack of complexity of computer-mediated language than the language people use in everyday life. Omission of subject pronouns, determiners and auxiliaries is a distinctive structural feature of CMD. On the other hand, certain strategies of sound imitation are followed by internet users to express non-language sounds like laughter for example in the form of 'hahahahahahaha'. (p. 5)

All these features of CMD have considerable influence on the communication process. Many of these features play a double role in the success and failure of communication on the internet. Lacking knowledge of the nature of CMD can be an obstacle in understanding the intended meaning of communication; it may lead to confusion, misinterpretation or getting false impressions.
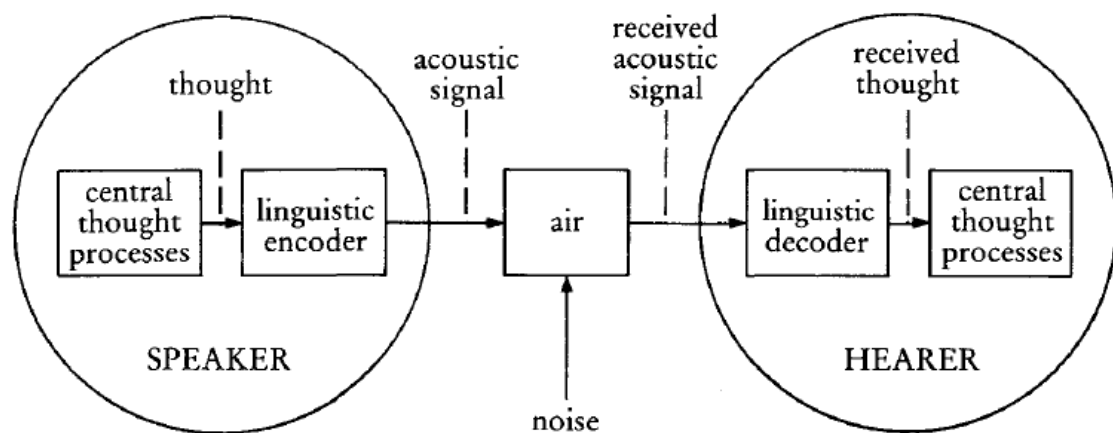
1.3 Relevance Theory

Sperber and Wilson's (1986, 1995, 2002, 2012) work on communication comes in reaction to Grice's (1975) Cooperative Principle, which proposes four maxims that govern communication. The maxim on which Sperber and Wilson build their Relevance Theory is the maxim of

relation. It simply states that one's communicative act needs to be relevant, with no more elaboration on the maxim.

Relevance Theory is considered a cognitive approach to communication. Sperber and Wilson, in their proposition of the theory, consider it a framework for the study of communication from a cognitive perspective. They mainly discuss how speaker's intended meaning is interpreted by assuming the greatest level of relevance, as they believe that the human cognitive system is developed to pay attention to the greatest expected relevance. (Wharton, 2009, p. 394)

Relevance theory (Sperber and Wilson, 1995) can be defined as an attempt to work out in detail one of [Paul] Grice's maxims of conversation. Even though relevance theory departs from Grice's vision of communication on a number of fundamental issues, the main point of convergence between the two models is the assumption that communication (both verbal and nonverbal) requires the ability to attribute mental states to others.

A general theory of communication cannot be based upon defining communication in terms of coded messages only.

Sperber and Wilson's (1995) model of human coded communication (p. 5)

Sperber and Wilson (1995) explain that in human language, communication is achieved through a linguistic system, where the message is the speaker's thoughts and ideas; and the signal is the language itself. However, they view communication in terms of coded message as being inadequate for communication. They assert that "communication involves more than the decoding of the linguistic

signal." (p. 6) They propose that a coded communication is indispensable; however, it does not cover all levels of communication since they see communication as more than the mere exchange of signals. They emphasize that "there is a gap between the semantic representations of sentences and the thoughts actually communicated by utterances." (p. 9) In her definition of communication, Bara (2011) asserts that "communication is essentially a cooperative activity between two or more people in which meanings of each transaction are constructed by all those actors together engaged in the shared task of reciprocally attending to the other communicants' words." (p. 443) Thus, communication is not limited to the transfer of information or speech from one person to another; it rather has to do with a wider range of emotions, intentions and attitudes. Grice's (1975) Cooperative Principle has its massive impact on communication studies. He confirms that to achieve communication, one needs not to use code. The realisation of a speaker's intention can be achieved through different channels. Thus, communication itself does not depend on coding and decoding all the time. Thus, inference is one of the major concepts in communication.

Relevance Theory is a framework for the study of cognition, proposed primarily in order to provide a psychologically realistic account of communication. (Allot 2013, p.57) Relevance theory treats utterance comprehension as an inferential process which takes as input the production of an utterance by a speaker, together with contextual information, and yields as output an interpretation of the speaker's meaning. (Wilson, 2016, p. 3)

Sperber and Wilson (2002) assert that the process of understanding an utterance does not essentially depend on the process of decoding certain speech or language. They confirm that it involves the speaker's intended meaning of a proposition through different ways of communication, bearing in mind the contextual circumstances of the utterance. They propose that the intended meaning of an utterance essentially relies on its occurrence in a certain context.

Sperber and Wilson (1995) put forward a basic principle to Relevance Theory as "Every act of ostensive communication communicates a presumption of its own optimal relevance." (p. 158) They define it in terms of cognitive effects and processing effort 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. (Wilson & Sperber, 2004, p. 609)

Sperber and Wilson (1986) base their Relevance Theory on two major principles: The Cognitive Principle of Relevance and the Communicative Principle of Relevance. The first has to do with how the "[h]uman cognition is geared to the maximization of relevance." (Sperber and Wilson, 1986, p. 260) Relevance, according to this principle, is dealt with in terms of two factors: cognitive effects (payoff) and processing effort (cost), which makes relevance a matter of degree. In relevance theory, there is no actual representation of mental effort in processing an input nor the effects this effort may create. Thus, our awareness of the mental effort is not to be compared to our awareness of physical effort for example. This leads to the conclusion that the concept of relevance itself is non-representational itself, per say. For Sperber and Wilson, "relevance is a property which need not be represented, let alone computed, in order to be achieved" (1986, p. 132). As with effort and effects, our sense of relevance is intuitive and comparative, rather than absolute.

The other major principle in Relevance Theory is The Communicative Principle of Relevance. Relevance Theory is concerned with deliberate communication which is called "ostensive-inferential communication" to find out the intended meaning of speakers. Speakers produce speech with a set of intentions to communicate with hearers. According to relevance theory, this set of intentions is mean to "modify the hearer's mental representation of the world by providing the hearer with information about the speaker's representation of the world." (Allott, 2013, p. 13) The ostensive-inferential communication has two types of intentions: The informative intention and the communicative intention. The first is the intention to inform the audience of some information, while the communicative intention is the intention to inform the audience of one's informative intention.

For Sperber and Wilson (1995), to reach the state of Optimal Relevance, one's utterance needs to be 1) relevant enough to be worth processing; and 2) the most relevant one compatible with the speaker's abilities and preferences.

Sperber and Wilson (2002) put forward their Relevance comprehension procedure:

Follow a path of least effort in constructing an interpretation of the utterance (and in particular in resolving ambiguities and referential indeterminacies, adjusting lexical meaning, supplying contextual assumptions, deriving implicatures, etc.).

a. Stop when your expectations of relevance are satisfied.

Departing from this comprehension procedure, Sperber and Wilson (2002) differentiate between the two notions of explicature and implicature in terms of how an assumption is communicated. "We will call an explicitly communicated assumption an explicature. Any assumption communicated, but not explicitly so, is implicitly communicated: it is an implicature." (Sperber and Wilson 2002, p. 217) An explicature is a pragmatic development of encoded linguistic meaning. This is the first step that the mind commits to in any given communication, where a hypothesis about explicate content is constructed. Sperber and Wilson (2002) discuss two detailed steps under the umbrella of the notion of implicature: Implicated Premise and Implicated Conclusion. These two steps are dependent on each other and are considered essential components for reaching an implicature in a given communication. An implicated premise is a hypothesis about the intended contextual assumptions while the implicated conclusion id a hypothesis about the contextual implications.

This process of comprehension has three basic features:
1. It is an all-in-once sort of mechanism.
2. It does not need to follow a sequential order.
3. The three kinds of hypotheses (explicature, implicated premise and implicated conclusion) are developed against a background of expectations that can be revised during the comprehension process itself.

Hence, Relevance Theory is an explanatory approach to the way people understand each other in any given communication.

2. Methodology

The data of this study encompasses 25 consumer reviews that are posted on an Egyptian Public Facebook group: "Don't Shop Here – A list of Untrustworthy Shops in Egypt". The data is selected to cover reviews on different products and services from November 2018 to April 2019 (six months). The 25 reviews vary in length and the collective word number

of the whole data is 8129 words. First, an interpretative account based on Relevance Theory is presented, to demonstrate the strategies by which customers make their posts manifest based on the mutual cognitive environments they create/exploit in the reviews. These mutual cognitive environments are based on different types of shared knowledge, which assist in the presentation of the users' communicative intentions in writing the posts. The current study aims to answer the following research questions:

1. What are the relevance strategies that Facebook users employ to achieve their communicative intentions in their posts?
2. What are the factors that determine the achievement of relevance in internet-mediated discourse?
3. How far can Relevance Theory account for interpretations in a computer-mediated discourse of social media?

3. Analysis and Discussion

In this section, the different kinds of knowledge and assumptions that writers activate to achieve their communicative intentions are to be analyzed from relevance perspective. These kinds of shared knowledge and assumptions are sources for relevance that customers depend on to reveal their communicative intentions, and they are divided herein to: **Community General Shared Knowledge, Schematic Shared Knowledge, Loose Talk, and Metarepresentation** (Metadiscourse Interactional Resources). In order to reach the intended meaning, the interpreter depends on different inferential strategies that include: **Disambiguation, Reference Assignment, Conceptual Adjustment, Free Enrichment, Sub-sentential Utterances, and Propositional Attitude Ascription.**

3.2 Community Shared Knowledge

One of the sources that post writers depend on to make their communication as manifest as possible is the manipulation of the shared knowledge with their audience. The use of some expressions and situational utterances evoke the audience's assumptions about the world in order to draw the closest implicature that the communicator intends to convey (intended meaning).

(1) It all started when they changed their buses, which are the reason why people substantially admired their service from elegant and clean mini-bus with few number of passengers to old buses that are rented from tourism companies. The issue is that it is like you are on a public transportation bus.

اولا الموضوع ابتدى بإنهم غيروا الاوتوبيسات الى كانت السبب فى اقبال الناس عليهم اصلا **من مينى باص شيك و نضيف و فيه عدد قليل** لاتوبيسات قديمه متأجره من شركات سياحيه . و الموضوع بقي كأنك راكب **اتوبيس نقل عام** (R:1)

/ʔawalan ʔilmawdʕu:ʕ ʔibtada biʔinuhum ɣajaru: ʔilʔutubi:sa:t ʔili ka:nit ʔilsabab fi: ʔiqba:l ʔilna:s ʕalihum min mini ba:sʕ ʃi:k windʕi:f wifi:h ʕadad ʔulajil liʔutubi:sa:t ʔadi:mah mitʔagarah min ʃarika:t sija:ħijah wilmawdʕu:ʕ baʔa kaʔinak ra:kib ʔutubi:s naʔal ʕa:m/

The customer in this post complains about the poor service that she receives by SWVL, a bus pooling service. A public transportation bus does not yield in itself any negative or positive expectations since it is a bus service that is subject to being good or bad one. However, the Encyclopedic Knowledge about the public transportation service in Egypt reduces the mental effort consumed by the review reader to understand what this part of the post means. The reviewer chooses to draw a comparison between the service that she receives from SWVL and a public transportation method to explain what she accepts and what she does not in terms of quality of the service. Two kinds of effort are required from the side of the reader; the first is to call upon their background information attached to the expression "public transportation in Egypt" and the second is to draw an analogy between SWVL bus service features and how it turns into a poor one. Given the enough background, which is the specific shared knowledge among community members, about public transportation in Egypt, adding to it the juxtaposition offered by the reviewer, the above processing takes place in no time in the minds of the text interlocutors. However, the absence of such background results in failure of communication, since the expectations of relevance are not fulfilled. The interpretation procedure is illustrated in Table 1.

(a) The reviewer wrote, " كأنك راكب اتوبيس نقل عام "	*Decoding of the reviewer's utterance.*
(b) The reviewer's utterance is optimally relevant to the readers.	*Expectation raised by the recognition of the reviewer's utterance as a communicative act.*
(c) The reviewer's utterance will achieve relevance by being compared to the set of criteria of a good bus service.	*Expectation raised by (b), together with the fact that such reasons would most be relevant to the readers at this point.*
(d) A public transportation bus service is relatively poor service and would not be a convenient method for the reviewer.	*First assumption to occur to the readers which, together with other premises might satisfy expectations (c). accepted as an implicit premise of the reviewer's utterance.*

(e) A public transportation bus, where it is considered another variation of the transportation method available to people in this community, is relevant as expected in the context.	*The first enriched interpretation of the reviewer's utterance as decoded by (a) to occur to the readers which might combine (d) to lead to the satisfaction of (c). interpretation accepted as the reviewer's explicit meaning.*
(f) Riding public transportation is tedious.	*Inferred from (d) and (e). Accepted as an implicit conclusion of the reviewer's utterance.*
(g) Riding public transportation is tedious and inconvenient to the reviewer and she would not choose it as a transportation means.	*Inferred from (d) and (f), satisfying (b) and (c) and accepted as an implicit conclusion of the reviewer's utterance.*

Table 1.

Another example of the use of the Community General Shared Knowledge is illustrated in the following excerpt from (R: 4). In this post, the customer complains about the misbehavior of the staff at one of the famous cafés in Egypt, Coffee Shop Company, where she and her friends decide to have drinks there whereas two out of five did not make any order. The staff of the café show objection to the customer and her friends on the idea that as long as they are sitting in the café premise, they all have to make orders, or else they will have to pay a minimum charge for each one in the group. The way the staff member decides to express his disagreement evokes much of the shared knowledge with the customer which, in turn, she brings forth to the readers of the post.

(2) They kept saying disrespectful and obtrusive talk like "you are not sitting in a social club that you do not make an order"

"You are not sitting in a public garden."

قعدوا يقولولنا كلام مش محترم ومتطفل من نوعيه ما حضرتك مش قاعده في نادي اجتماعي عشان متطلبيش

مانتي مش قاعده في حديقة عامه (R:4)

/ ʔaʕadu: yiʕulu:lna kala:m miʃ muħtaram wimutatʕafil min nawʕijit ma: ħadʕritik miʃ ʔaʕdah fi: nadi: ʔigtimaʕi: ʕaʃa:n matitʕlubi:ʃ ma:nti: miʃ ʔaʕdah fi: ħadi:qah ʕa:mah/

(a) The reviewer wrote, " نادي اجتماعي حديقة عامة."	*Decoding of the reviewer's utterance.*
(b) The reviewer's utterance is optimally relevant to the readers.	*Expectation raised by the recognition of the reviewer's utterance as a communicative act.*
(c) The reviewer's utterance will	*Expectation raised by (b), together*

	achieve relevance by explaining why all the customers have to make orders at the café.	*with the fact that such reasons would most be relevant to the readers at this point.*
(d)	Sitting at the café is different from sitting at a social club/public garden.	*Assumption activated by both the use of the two expressions of social club and public garden in comparison to the café. Accepted as an implicit premise of the customer's utterance.*
(e)	One does not need to make orders of drinks and food at a social club/public garden.	*Assumption activated by both the use of the negated forms associated in the two utterances. Accepted as an implicit premise by the customer's utterance.*
(f)	A social club/public garden is costless while a café is not.	*Inferred from (d) and (e). Accepted as an implicit conclusion of the reviewer's utterance.*
(g)	It is obligatory that customers make orders at a café.	*Inferred from (d) and (f), satisfying (b) and (c) and accepted as an implicit conclusion of the reviewer's utterance.*

Table 2.

In using the two expressions of "نادي اجتماعي" and "حديقة عامة" to refer to places that are costless, the writer evokes the audience's shared knowledge about these two places in comparison to a café, where people usually pay for the times that they spend there. This kind of Community General Shared Knowledge is the source of an implicature that is illustrated in the interpretation process in Table 2.

3.3 Schematic Shared Knowledge

In some reviews, customers rely on the specific shared knowledge that relates to the nature of some situations, products or services. This specific shared knowledge consists of a group of schemata that relate to one's experience with a named situation and with specific circumstances. The manipulation of shared knowledge through linguistic decoding as a source of assumption is one of the cases that result in implicature that is based on context. The following excerpt from the same post is evidential of such case.

(3) The sales department at Vodafone achieves target by forgery and fraud!!

<div dir="rtl">

قسم المبيعات في فودافون بيحقق تارجت بالنصب والتزوير!!   (R: 18)

</div>

/qism ʔilmabiːʕaːt fiː vodaːfuːn bijħaʔaʔ taːrgit bilnasʕb wiltazwiːr/

Knowledge about business corporations is not uncommon among customers since an involvement in the purchase process of any product or service includes engagement with different departments in a corporation. However, lack of such specific shared knowledge makes the above beginning line of the customer's complaint about Vodafone almost meaningless. In some cases, this knowledge requires a level of code-switching from Arabic to English, which is also one of the features of the language of the internet. The customer complains about a fraud and forgery case by Vodafone sales team in a presupposition that ostensively expresses the customer's problem with the company. In some reviews, the beginning line of the post is a form of a summary to the whole problem of the customer. In such case, the interpretation process can start and end at the same point of the post on the condition that adequate shared knowledge and assumptions exist on the part of the interlocutor in order to reach the implicated conclusion based on the reviewer's intended meaning to satisfy relevance. However, in the above excerpt, an interlocutor is faced with a number of challenges for understanding the statement. First, an assumption about business corporations' structure needs to be strengthened. Another challenge is the use of a variation of language based on another foreign language. The use of the lexical item "تارجت" meaning "target" and written in Arabic letters poses a challenge to comprehension at some point of the statement which raises the processing effort of the interlocutors. One of the features of CMC is the use of different language varieties; however, in the community of Arab Internet users, it is more common to use Roman script of Arabic to write Arabic words in English letters but nor vice versa. At the graphological level, the post writer's use of two exclamation points as end marks of the statement presupposes his attitude towards the incident. Dependency on the interlocutors to contextualize the statement in complaint format requires a sort of enrichment from their side. The demanded effort for understanding such statement is more than a less indirect one since activation of the shared knowledge about business corporations in addition to the depersonalization of the statement do not yield explicit content that interlocutors can depend on. Based on the shared knowledge and assumptions, an interpretation account of the above excerpt is illustrated in the Table 3.

(a) The reviewer wrote, " قسم المبيعات في " "فودافون بيحقق تارجت بالنصب والتزوير"	*Decoding of the reviewer's utterance.*
(b) The reviewer's utterance is optimally relevant to the readers.	*Expectation raised by the recognition of the reviewer's utterance as a communicative act.*
(c) The reviewer's utterance will achieve relevance by explaining how Vodafone sales team achieve their target.	*Expectation raised by (b), together with the fact that such utterance would most be relevant to the readers at this point.*
(d) Fraud and forgery by Vodafone sales team is an enough reason for writing a complaint.	*First assumption activated by to show the reviewer's intended meaning. Accepted as an implicit premise of the customer's utterance.*
(e) قسم المبيعات بيحقق تارجت بالنصب والتزوير (تارجت where) means target and is relevant as expected in the context.	*Assumption activated by technical background enrichment of the utterance. Interpretation accepted as the customer's explicit meaning.*
(f) The customer writes the review to complain from Vodafone's sales team fraud and forgery.	*Inferred from (d) and (e). Accepted as an implicit conclusion of the reviewer's utterance.*
(g) The customer has been exposed to an experience where Vodafone's sales team has practiced fraud and forgery to him.	*Inferred from (d) and (f), satisfying (b) and (c) and accepted as an implicit conclusion of the reviewer's utterance.*

Table 3.

(1) They said to me, "What other service would you like to get?" I said to them, "I'll totally remove the application (from my phone)," and this is what happened.

قالولي تحبي نخدمك بايه تاني قولتلهم انا هالغي الابليكيشن خالص من عندي وده اللي تم (R:16)
/ʔalu:li: tiħibi: nixdimik biʔih tani: ʔultilhum ʔana halɣi: ʔilʔblikiʃan xalis min ʕandi: widah ʔili tam/

Under a hashtag of #don't_use_otlob_app, the review writer updates her post with the above exchange with one of the customer service agents from Otlob, a food delivery mobile application. In her original post, she complains about the poor customer service she faces when her pizza order is delayed and she suggests a boycott to the app since it is, according to her, completely useless. She presents the exchange that takes place with the customer service where her problem is not resolved. Her response to the customer service agent's question in case there is something else he/she can help with evokes the reader's shared knowledge about the technical use of mobile applications. Removing an application from a mobile phone presupposes not using the application any longer. The

review writer chooses to implicitly decode her intended meaning to the customer service agent by the manipulation of the analytic implication that is based on the propositional meaning of her sentence " انا هالغي الابليكيشن خالص من عندي". Choosing to implicitly convey her intended meaning of boycotting the application for good by removing it from her phone yield higher contextual implications about the customer's decisiveness in her action. The affirmation she complements the statement with "وده اللي تم" represents an enrichment to her intended meaning in deciding to boycott the application and the service.

(a) The reviewer wrote, " انا هالغي الابليكيشن خالص من عندي"	*Decoding of the reviewer's utterance.*
(b) The reviewer's utterance is optimally relevant to the readers.	*Expectation raised by the recognition of the reviewer's utterance as a communicative act.*
(c) The reviewer's utterance will achieve relevance by explaining the action that the customer decides against the dissatisfying service of Otlob.	*Expectation raised by (b), together with the fact that such utterance would most be relevant to the readers at this point.*
(d) The customer already used Otlob application, which entails that she had it on her phone.	*First assumption activated by the use of "remove the application" to show the reviewer's intended meaning. Accepted as an implicit premise of the customer's utterance.*
(e) Removing an application from a phone means that one can no longer use the application.	*Assumption activated by technical background enrichment of the utterance. Accepted as an implicit premise by the customer's utterance.*
(f) The customer decides to remove the application from her phone.	*Inferred from (d) and (e). Accepted as an implicit conclusion of the reviewer's utterance.*
(g) The customer will no longer use the application and hence boycott the service.	*Inferred from (d) and (f), satisfying (b) and (c) and accepted as an implicit conclusion of the reviewer's utterance.*

Table 4.

3.4 Loose Talk

In this section, an interpretation account based on relevance theory is presented, tackling what Sperber and Wilson (2012) introduce as loose talk. This term encompasses all examples of rhetoric, metaphors and irony. They indicate that literalness of language is a feature that is dealt with by the decoding/encoding process. However, non-literal use of language needs a combination of linguistic decoding, contextual information and general expectations about the communicator's intentions and behavior. In order to reach an interpretation of non-literal use of language, one needs to call upon the cognitive environments in mind and

modify them by adding some pieces of information and modifying a whole range of assumptions. Thus, what Sperber and Wilson name as "cognitive effects" comes to replace all kinds of rhetoric effects and connotation. In addition, to arrive at these cognitive effects, the human mind needs to exert mental efforts in processing the information in hand.

a. The case of Metaphors

The comprehension of metaphors invites the activation of various concepts, assumptions and implications that they carry in discourse. Approaching metaphors in discourse presumes the same level of relevance like literal use of language, since expectations of relevance by interlocutors do not change. However, the degree of effort that is exerted in the interpretation process of an utterance differs depending on the degree of literalness. Cases of conceptual metaphor are recurrently used in customer reviews as a means of expressing dissatisfaction and description of customers' problems with different products and services. These metaphors prove to be relevant to the context with the activation of the concepts related to them.

(5) I'm a new member in the group and I have a problem that I fell into. Please, allow me to explain it to you in detail and I am sorry for elongation because it is a big issue.

انا لسه عضو جديد في الجروب وعندي مشكله **كبيرة وقعت** فيها وبعد اذنكم هشرحالهكم بالتفصيل واسف إني هطول عليكم لأني الموضوع **كبير** (R: 2)

/ʔana lisa ʕudʕw gidid filgru:p wiʕandi muʃkilah kibira wiʔiʕt fi:ha wibaʕd ʔiznukum haʃraħha:lkum biltafsʕi:l wiʔasif ʔini hatʕawil ʕalikum liʔani ʔilmawdʕu:ʕ kibi:r/

In this review, the customer introduces the problem he is exposed to by activating two concepts. The first is the linguistic metaphor " وقعت مشكلة فيها" that conceptualizes problems in terms of holes where one falls into. The activation of the conceptual metaphor PROBLEMS ARE HOLES is necessary to interpret the intended meaning that the review writer decides to send to the readers. Decoding the literal meaning of such linguistic metaphor creates much relevance since it bases itself on a higher-level concept to imply how the problem is visualized by the customer. The interpretation process of such metaphor is set forth in Table 5.

(a) The reviewer wrote, "مشكلة وقعت فيها"	*Decoding of the reviewer's utterance.*
(b) The reviewer's utterance is optimally relevant to the readers.	*Expectation raised by the recognition of the reviewer's utterance as a communicative act.*
(c) The reviewer's utterance will achieve relevance by describing the problem	*Expectation raised by (b), together with the fact that such utterance would most be*

he is exposed to.	relevant to the readers at this point.
(d) "Falling into" is lexicalized as a downward physical movement into a hole.	First assumption activated by the use of "fell into". Tentatively accepted as an implicit premise of the customer's utterance.
(e) "Problem" is lexicalized as a negative activity.	Assumption activated by the use of the word "problem". Tentatively accepted as an implicit premise by the customer's utterance.
(f) Having a problem, which is a negative activity, resembles falling into a hole, which is a downward physical movement.	Inferred from (d) and (e). Accepted as an implicit conclusion of the reviewer's utterance.
(g) A PROBLEM IS A HOLE.	First overall interpretation of the customer's utterance (explicit linguistic metaphor plus conceptual implications) to occur to the audience which would satisfy the expectations of relevance in (b). Accepted as the customer's intended meaning.

Table 5.

Similarly, the linguistic metaphor "عندي مشكلة كبيرة" and "الموضوع كبير" evokes the activation of the concept of SIZE in the customer's description of the problem as a big one. Perceiving the customer's problem in terms of its size is a conceptual metaphor that implies the seriousness of the negative effects of the problem. Based on the assumption of size, BIG is conceptualized in terms of MUCH and SMALL in terms of LESS or FEW. The interpretive hypothesis about explicit content and implicatures are developed through the conceptualization of metaphors used in the review. The inferential steps that are required for the interpretation of conceptual metaphor are low in effort since they rely on already existing concepts in the minds of the interlocutors. The mapping that takes place between the linguistic metaphors and conceptual ones is largely accessible if compared to cultural metaphors or innovative ones. Thus, the cognitive effects and implications resulting from the conceptually interpreted metaphors are not huge.

(6) I cannot imagine how a big bank like the National Bank of Egypt has a system as weak as that.

انا مش متخيل ازاي بنك كبير زي البنك الاهلي المصري نظامه بالشكل الضعيف ده (R: 20)

/ʔana muʃ mutaxajil ʔizaj bank kibi:r zaj ʔilbank ʔilʔahli: ʔilmasˤri: niðˤamuh bilʃakl ʔildˤi:f dah/

The customer faces a problem with the system procedures at one of the popular banks in Egypt. The evoked conceptual metaphor that the customer's description relies on goes back to Darwin's hypothesis. The customer writes a complaint to elaborate on the low quality of the provided service by the bank due to their inefficient system saying " نظامه بالشكل الضعيف ده", in an attempt to refer to weakness in terms of low

quality. The conceptual metaphor that the customer base his assumption on is WEAK IS BAD. Again, the implicated premise that interlocutors reach is almost effortless since the dependency in proposing such description is mainly on an already existing concept. The inferential process manipulates the conceptual metaphor in one of the steps in order to arrive at the indicated implicature.

One of the common metaphors to express the idea of anger and nervousness is "blood burn". Conceptualizing anger in terms of heat is not uncommon among different cultures. However, according to Sperber and Wilson's (2012) account, such case of rhetoric is not easily determined as metaphor or hyperbole since the interpretation is the same in both cases. The two utterances above belong to two different reviews; however, the expression of anger is demonstrated in the same way. Activating the assumption of heat as a means to express anger, the implicit conclusion of the utterance is far away from literalness. In both cases, the contextual implications are based on two main factors: the linguistic decoding of the utterances and the contextual information. Strengthening existing assumptions about the expression of anger in terms of heat leads to the implicature that the customers, in both reviews are dissatisfied.

(7) Honestly, my blood boiled in my veins and thought to give him a last chance.

بالصراحة <u>الدم غلى فى عروقى</u> فقلت اديله اخر فرصة (R:25)

/ʔilsʕaraħah ʔildam ɣili: fi: ʕuruʔi: faʔult ʔadi:luh ʔa:xir fursʔah/

The same case of using the metaphor of heat to express anger is used in this review using the linguistic metaphor "الدم غلي في عروقي" to raise expectations of relevance about the customer's feelings towards the situation. Decoding the linguistic metaphor above, an interlocutor needs to proceed with more inferential steps beyond decoding the utterance. Conceptualization of the customer's feelings in terms of heat is considered the existing assumptions that are strengthened to lead to the implicated conclusion of the utterance.

Although the mental effort that is spent on the interpretation of such cases is not small, the cognitive effects that are achieved are worthy the interlocutors' attention. With the raised expectations of relevance about the context as a form of complaint in general, the contextual implications yield more cognitive effects that satisfy these expectations of relevance.

(8) They either fix the gearbox or, if we don't like that, we **go hit our head to the wall**.

يا تصلحلنا الڨتيس يا أما لو مش عاجبنا **نخبط دماغنا في الحيط** (R: 2)

/ja: tisʕalaħlina ʔilfiti:s ja: ʔima: law muʃ ʕagibna: nixbatʕ dimaɣna: filħi:tʕ/

(9) I looked to find that they cut the mold in it (the sandwich) as it is clear (in the picture) so that I **go hit my head to the wall.**

ابص فيه لاڨيتهم مقطعين العفن اللى فيه زى ماهو واضح علشان **اخبط دماغى ف الحيطة** (R: 14)

/ʔabus fi:h laʔi:thum meʔatʕaʕi:n ʔilʕafan ʔili: fi:h zaj mahu: wadʕiħ ʕalaʃa:n ʔaxbatʔ dimaɣi: filħi:tʕah/

(10) They said the warranty is only one year and that is possible and that is not our responsibility; there is no obligation to the agency and g**o hit your head to the wall.**

قالو ان الضمان سنة واحدة ودة ممكن يحصل وان دي مش مسئوليتنا التوكيل غير ملزم **واضرب دماغك في الحيط** (R:24)

/ʔalu: ʔin ʔildʕama:n sanah wa:ħdah widah mumkin jiħsʕal wi ʔin di: muʃ masʔulijitna ʔiltawki:l ɣi:r mulzam widʕrab dimaɣak filħi:tʕ/

These three utterances are extracted from three different reviews, where the customers are dealing with different situation and talking about different complaints. However, the reported incidents do not represent mere complaints about the provided products or services to the customers. Moreover, they represent an essential part of the complaint which is the provider's attitude and behavior. The three reviews describe such behavior using the same cultural rhetoric expression "اخبط دماغك في الحيط" , which is equivalent to "go suit yourself" or "deal with it", to signify the attitude they get from those providers. An essential background knowledge about the meaning of such rhetoric expression is required to reach an interpretation of the utterance. Having this knowledge, an interlocutor acts upon it as an assumption for the inferential process that guides to the interpretation of the utterance. Such expression presupposes the idea of responsibility denial from the part of the provider and waving it to the customers themselves. Interestingly, the utterance itself is presupposed as the communicative act that the provider has not directly stated, but it is inferred by the customer based on the provider's attitude. The inferential steps for interpreting such expression is Table 6.

(a) The reviewer wrote, " اخبط دماغك في الحيط"	*Decoding of the reviewer's utterance.*
(b) The reviewer's utterance is optimally relevant to the readers.	*Expectation raised by the recognition of the reviewer's utterance as a communicative act.*
(c) The reviewer's utterance will achieve relevance by describing the provider's attitude to the problem.	*Expectation raised by (b), together with the fact that such utterance would most be relevant to the readers at this point.*
(d) "اخبط دماغك في الحيط" is culturally equivalent to the meaning of "suit yourself".	*First assumption activated by the use of "اخبط دماغك في الحيط". Tentatively accepted as an implicit premise of the customer's utterance.*
(e) "Suit yourself" is presupposed by the customer as the provider's utterance.	*First enriched interpretation of the customer's utterance as decoded in (a) to occur to the customer which might combine with (d) to satisfy (c). Tentatively accepted as an implicit premise by the customer's utterance.*
(f) The provider denies responsibility of the problem.	*Inferred from (d) and (e). Accepted as an implicit conclusion of the reviewer's utterance.*
(g) The problem is the customer's not the provider's.	*First overall interpretation of the customer's utterance (explicit linguistic metaphor plus conceptual implications) to occur to the audience which would satisfy the expectations of relevance in (b). Accepted as the customer's intended meaning.*

Table 6.

b. The Case of Irony

Relevant to the previous section, the use of irony in discourse serves to convey not only the speaker's propositional meaning but also their intentions, emotions and attitudes. Since customers' complaints reveal their churn during the experience they have gone through, customers employ strategies of irony to achieve their communicative intentions in the form of black comedy. In this section, a group of extracts where irony is used are analyzed to show their relevance in context and explain what and how they mean.

(11)   It is supposedly a respectful company and "**the pride of frozen food**" as they write on their pack.

والمفروض انها شركة محترمة **وفخر المنتجات المجمدة** زي ما هما كاتابين(كاتنبين.i.e) علي الكيس (R: 12)

/wilmafru:dʕ ʔinaha: ʃirkah muħtaramah wifaxr ʔilmuntaga:t ʔilmugamadah zaj ma: huma katbi:n ʕala: ʕilki:s/

This is an example of implemented irony in the review to express the customer's perception of the product. The customer chooses an echoing strategy to express his opinion of the product in an explicature that completely contradicts with the implicated conclusion of the utterance. Echoing takes place by using the company's slogan "فخر المنتجات المجمدة" that is written on the pack. The effect of echoing in creating irony in the repetition of the company's slogan is dissociative since it expresses the opposite of what is decoded by the utterance in the context of a complaint.

(12)   What is **more beautiful** than all this is when I complained to the respected mister there Mr. Sayed, he took the sandwich and went to the manager.

المهم **الاجمل** من دة كله : انى لما اشتكيت الاستاذ الفاضل اللى ف المكان الاستاذ سيد خد الساندويتش و طلع للمدير (R:14)

/ʔilmuhim ʔilʔagmal min dah kuluh ʔini lama: ʔiʃtaki:t ʔilʔusta:z ʔilfa:dʕil ʔili filmaka:n ʔilʔusta:z sajid xad ʔilsandwitʃ witʕiliʕ lilmudi:r/

(13)   What is **nicer** is that Mr. Sayed told me that this branch manager has just been moved here two days ago because of a problem in another branch.

الالذ بقى انا الاستاذ سيد قالى حضرتك مدير الفرع دة لسة منقول من يومين بسبب مشكلة ف فرع تانى(R:14)

/ʔilʔalaz baʔa ʔin lʔusta:z sajid ʔali: ħadʕritak mudi:r ʔilfarʕ dah lisah manʔu:l min ju:mi:n bisabab muʃkilah fi farʕ tani:/

In this review, the customer complains about an incident of growing mold on her sandwich from La Poire, a series of pastry shops in Egypt. In narrating her experience, she manipulates an attributive feature of irony, where she describes the situation in terms of a contradicting attribute to what she means. Her complaint, at this stage, is not from the product only, but rather from the attitude she receives from the employee at the branch. The use of positive attributes in a negative context achieves optimal relevance by ironically echoing the socially shared assumptions that are normally attached to such situations. The implied premises to this case of irony are illustrated as follows.

Premise 1(Explicature): The customer believes that taking the sandwich to the manager is beautiful.

Premise 2 (Implicated Premise): The customer's utterance contradicts with the negative context of a complaint.

Premise 3 (Implicated Premise): The customer's utterance is the opposite of what she means.

Premise 4(Implicated Conclusion): The customer believes that the situation is neither beautiful nor nice.

    (14)   Vodafone forges my signature!!!

The **respectful department** called me about 8 months ago to offer me a monthly internet bundle for 150 EGP.

فودافون بتزور توقيعي!!!!

(R:18) **القسم المحترم** كلمني من حوالي ٨ شهور عرض عليا باقة إنترنت شهرية بـ ١٥٠ جنيه

/vodafuːn bitzawar tawkiʕiː/

/ʔilqism ʔilmuħtaram kalimniː min ħawaliː 8 ʃuhuːr ʕaradʕ ʕalaja baqit ʔintirnit ʃahrijah bi 150 giniːh/

    (15)   The **respectful captain** arrives at the airport and I found my father calling me to tell me he has been standing for half an hour with the captain because there is no internet to show me the trip cost.

الكابتن المحترم وصل المطار لقيت والدي بيكلمني وبيقولي بقاله نص ساعة موقفني بيقولي مفيش نت عشان يوضحلي الرحلة تكلفتها كام (R: 23)

/ʔilkabtin ʔilmuħtaram wasʕal ʔilmatʕaːr laʔiːt waldiː bijkalimniː wibijʔuliː baʔaluh saːʕah miwaʔafniː bijʔuliː mafiːʃ nit ʕaʃaːn jiwadʕaħliː ʔilriħlah taklifitha: kaːm/

The customer accuses Vodafone of forging his signature, which is a negative illegal action that no respectful company would commit. However, the customer ironically describes the sales department as "القسم المحترم" using an ironic tone in talking about it. A sense of incongruity is created through the use of positive attribute to describe a negative situation. The customer exploits an echo of what people generally believe about Vodafone that work as an assumption that is used to process the information he presents in the complaint. This assumption is not compatible with the description he uses nor with the contextual environment he creates in the post. In a similar manner, the customer in (R:23) uses the same description in a suspected case of forgery by one of Uber captains with whom the customer's father had a trip to the airport and the captain tries not to unfold the trip cost. Although the two customers use the word "respectful" for description in the two incidents, what they mean is completely the contrary. One of the reasons for using irony in such situations is avoiding impoliteness that presumably would lead to legal case in considering it a direct insult to the designated companies. Thus, the incompatibility that occurs through using ironic

expressions achieves the desired communication without violating politeness norms.

(16)   We went to **the lady** at her atelier in Heliopolis at 4 sharp; she was not there!!!!

روحنا <u>**للهانم**</u> في الاتيليه بتاعها في مصر الجديدة الساعة ٤ بالظبط. ماكانتش موجودة!!!! (R: 9)
/ruħna: lilha:nim filʔatili:h bitaʕha: fi: masʕr ʔilgidi:dah ʔilsaʕah 4 bilðʕabtʕ maka:nitʃ mawgu:dah/

In a similar manner, this review writer complains about the misbehavior of a fashion designer that gives him and his fiancée an appointment and totally skips it without apologizing. The customer refers to the designer by saying "الهانم" although her behavior does not reflect a lady's ethics. The explicated meaning that is present in the proposition expressed in the utterance contradicts with the overall meaning of the review, which creates an assumption of dissatisfaction. However, the implicated premises that this utterance carry lead to the sense of irony that is intended by the utterance. Again, the utterance is represented as being used ironically to represent a thought about the designer that is attributed to her to express the reviewer's dissociative attitude towards the designer and how she acts. In this case, irony is achieved by expressing a thought which is a representation of another thought.

4. Conclusion

The current paper employs a cognitive approach to investigate the customers' cognition in writing their reviews on Facebook. Hence, the three research question that this study arise are answered. First, in order to make their reviews manifest, customers exploit knowledge constructs and assumptions that assist in the interpretation of their intended meaning in the form of coded communication. Second, these assumptions include Community Shared knowledge, Schematic Shared knowledge, and Loose Talk which encompasses incidents of metaphor use and irony in discourse. Finally, all the kinds of assumptions and shared knowledge assist in the process of interpretation of customer reviews on the internet by highlighting the cognitive processes that are required to reach the customers' intended meaning and fulfilling the expectations of relevance in this type of discourse. The relevance theoretic procedure explains how such interpretation is reached from explicatures to implicated premises that interlocutors assume until reaching the inferred meaning or implicated conclusion of the utterance in context.

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