

1. Introduction

Communication is traditionally expressed as the exchange of information (meanings) from a sender to a receiver by means of a linguistic code. An alternative view presented by Grice (1989) who claimed that linguistic code is not adequate to arrive at the communicator's intention. The context of the utterance is also necessary. It affords evidence through which the interpreter can infer the intended meaning. For Wilson (2003), Grice's belief in utterance interpretation is resulting from a general ability to identify intentions behind actions through non-demonstrative inference [1,p.370].

Grice authorizes that the cooperative principle (CP) and its component maxims; truthfulness, informativeness, relevance, and clarity, should be achieved in a conversation. The cooperative principle states "Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged". The component maxims of conversation that a speaker should follow to be cooperative are:

a. Quality maxims: Try to make your contribution one that is true.

(i) Do not say what you believe to be false.

(ii) Do not say that for which you lack adequate evidence.

b. Quantity maxims: (i) Make your contribution as informative as is required (for the current purposes of the exchange).

(ii) Do not make your contribution more informative than is required.

c. Relation maxims: Be relevant.

d. Manner maxims: Be perspicuous.

(i) Avoid obscurity of expression.

(ii) Avoid ambiguity.

(iii) Be brief (avoid unnecessary prolixity).

(iv) Be orderly [2, p.26-7].

Assuming that the CP and its component maxims are normally obeyed by both the speaker and the addressee in a conversational exchange, Grice proposes that a conversational implicature (CI) refers to any meaning or proposition implicitly expressed by a speaker in his or her utterance which is meant without being part of what is said. It can arise from either precisely observing or flouting the maxims [3, p.48].

Lexical pragmatics (LP) is a recent field of research in modern pragmatics that vastly developed in linguistics during the last decades of the twentieth century due to the semantics/pragmatics distinction. It is proposed as a solution to problems raised in lexical semantics. LP provides an adequate explanation of different linguistic phenomena relevant to word meanings adjustment to bridge the gap between the encoded and communicated meanings of a lexical item [4,p.2]. Consequently, the chief concern of LP is to explain how linguistically specified 'literal' word meanings are adjusted in use through *narrowing* the meaning or *broadening* it:

(1) Susan has a *temper*.

'Temper' is adjusted to be interpreted as a 'bad' temper [5,p.148].

2. Lexical Pragmatics Approaches

Recent revisions and development on Grice's theory of CI, including Atlas and Levinson, 1981; Leech, 1981; Sperber and Wilson, 1982; 1986; Levinson, 1983, 1987; Horn, 1984, 1989, 1989 and Atlas, 1989, present different views where the classic Gricean model is criticized and new approaches have been engendered as neo Gricean approaches and post Gricean approaches[6,p.130].

2.1 Neo Gricean Approaches

Neo Gricean approaches perceive several principles and maxims to be needed in linguistic communication. However, they reject the reduction of the Gricean maxims to only one principle. In spite of their belief of the conversational principle is the main foundation of linguistic communication, they paid special attention to the rules developed by Grice relevant to the role of the context in meaning production and understanding in addition to grammaticalization and lexicalization processes [7,p.19]. Neo Gricean approaches pay more attention to *Generalized Conversational Implicature* (GCI) than *Particularized Implicature*¹ [8, p.49].

The leading models of all neo Gricean approaches are Horn's two principled models and Levinson's three principled model and Blutner's bidirectional optimality model. Interestingly, the most salient feature of reducing all Grice's maxims (except the maxim of Quality) into two fundamental principles: The Q (Quantity) principle and the R (Relation) principle. Levinson in his three-principled model, follows Grice in admitting the three levels of linguistic communication; intermediate level (utterance-type meaning) between semantics (sentence meaning) and pragmatics (speaker's meaning) while recalling the contextualist assumptions between the 'coded' meaning and 'occasional' speaker meaning should be obtained. The utterance-type meaning depends on the type of the utterance so it remains constant in different occasions. Inferences are derived by the speaker's choice of the form of the utterance; simple, unmarked, complex, marked, etc. In effect, his theory gives the linguist regularities that may induce generalizations[10,p.21].

2.2 Blutner's (2000) Bidirectional Optimality Theory (BOT) Model

Bidirectional optimality theoretic approach to LP is a neo Gricean approach in essence. It is generally regarded as a further step of development within neo Gricean approach. It shares insights with neo Gricean approach and others with post Gricean ones. This approach makes use of the general framework of optimality theory (OT), the theory that has been engendered in phonology by Prince and Smolensky1993 and soon successfully spread to other linguistic fields as morphology, syntax, applied linguistics and pragmatics [11,p.27].

In linguistics, OT is favored for two objective reasons; first, its contribution of ranking and violable constraints which is part of the linguistic tradition. Second, and more importantly, OT typically offers a precise and mathematically based formulation of the idea of optimization [12,p.427]. The notion of optimization is more established in pragmatics than it is in other branches of linguistic study. They cite a number of pragmatists' works, including Zibf 1949, who balances between relevance and effort, Grice's (1989) conversational maxims, Horn's (1984), Levinson's (1987) optimization of

[*]¹ GCI can normally be assigned to all utterances of this form but cancelled only in certain circumstances Grice's particularized implicature depends on special features of the context See [9].

three principles, and Sperber and Wilson's (1986) optimal principle of relevance according to [13,p.12].

OT represents a vital framework to consider different cases associated with semantic underdetermination (word meanings adjustment) [14,p.120]. Later, in (2000), Blumstein proposes a *bidirectional optimality theory* (BiOT). His approach is mainly motivated by a reduction of Grice's maxims of conversation to Q-principle and I-principle [11,p.192].

The main insight of this model is that linguistic form is assumed to be optimally interpreted. It is bidirectional as it engages the speaker's perspective and the hearer's perspective motivated by the I-principle (minimizing the speaker's effort), and the Q-principle (minimizing the hearer's effort). The R-principle competes for different probable interpretations for the same linguistic forms, the Q-principle competes different probable linguistic forms that the speaker may use to communicate the same meaning [13,p.10].

Consequently, the addressee typically selects the optimal interpretation of the given form out of a set of candidates. To achieve this aim, he should expect that the speaker expresses the intended meaning through the use of the optimal form. Therefore, the optimal meaning of a given form is optimal only if it conforms to the S principle (for the speaker) and the H principle (for the addressee) [15,p.173].

Broadly viewed, BiOT utilizes the basic framework and main components of OT. It assumes a set of linguistic choices to be governed by the conflict between a set of violable constraints. The optimal candidate is one that best satisfies the constraints (the less violated one). It systemizes the relation between the input and output by a mechanism of (Generator) GEN and (Evaluator) EVAL. Based on the constraints (CON), the candidates (CAN) are evaluated. Differently indicated, a set of linguistic choices characterizes the underlined representation of input that has undergone certain constraints to be filtered by the EVAL component to yield the output. The minimal violating candidate is defined as the optimal candidate. Two types of constraints are selected; *Markedness and Faithfulness*. Faithfulness constraints (well-formedness or structural constraints) [11,p.196]. Markedness constraints refer to the complexity of a given structure compared to another structure. Unmarked properties of language are those structures that are considered to be the most basic because they are present in all grammar. Unlike markedness, faithfulness constraints make sense only in phonology and syntax as they are full of unfaithful examples where there is a difference between the input and the output [16,p.xi] , [17, p.13-6].

Table (1) An Optimality Theory Tableau [13,p.507]

	F	M	F→M	*F→*M	F→*M	F*→M
$\langle f_1, m_1 \rangle$					*	
$\langle f_1, m_2 \rangle$		*	*			
$\langle f_2, m_1 \rangle$	*			*		
$\langle f_2, m_2 \rangle$	*	*				*

Two varieties of bidirectional optimality are considered: *strong* and *weak*. Typically, the strong optimality assumes only one optimal unmarked form-meaning pair. The weak one allows for pairing marked forms with marked meanings [11, p.191].

The two versions of bidirectional optimality can be illustrated by the following two examples [18,p.18]:

(2) a. Black Bart killed the sheriff.

b. Black Bart caused the sheriff to die.

The verb ‘kill’ in (a) is the unmarked form that is associated with the default interpretation of killing, whereas the phrasal verb ‘caused to die’ in (b) yields a marked interpretation of ‘killing’ as a result of magic curses or an accident’. The strong version of the theory allows for associating (a) with the standard interpretation of killing (unmarked, default interpretation), on the other hand, it will not allow for associating the marked form in (b) with the unusual interpretation, in the production side as (marked vs. unmarked form) and interpretation side (unusual vs. standard interpretation). Therefore, the weak optimization wins over other interpretations as (unmarked vs non-standard interpretation) and (marked vs standard interpretation) [18,p.19].

2.3 Post Gricean Approaches (Relevance Theoretic Approach)

Post Gricean approach is typically dominated by relevance theoretic approach as relevance theory (RT) becomes one of the most dominant theories in pragmatics. The roots of this theory, went back to the late 1970s and early 1980s when it was proposed as a cognitive alternative to Grice’s theory. As an approach, RT is cognitive pragmatic in the sense that it is an inferential approach that diverges from other pragmatic theories based on philosophical, sociological or linguistic foundations [19,p.313].

Essentially, RT is based on the conception of relevance and its two principles. In origin, it is founded on two of Grice’s fundamental assumptions; the goal of an inferential model is to express and identify the communicator’s intention by providing clues that will help the hearer infer the intended meaning. The other assumption is that the utterance potentially creates expectations that guide the hearer to infer the intended meaning. That is to say, people automatically tend to maximize the relevance of the input they process as speakers formulate their utterances as best relevant to their hearers [20,p.vii].

However, RT does not agree with Grice who accounts for rationality as the key to utterance interpretation though not providing an explicit mechanism to explain how inferential communication takes place. Instead, Grice provides complex conscious processing of CI [21, p. 50]. For Sperber and Wilson, the principle of relevance assumes that inferencing is essential to linguistic communication. It is dependent on the interplay of cognitive effects and processing efforts. Therefore, it is context-dependent. That means it depends on contextual effects (the positive cognitive effects) it has in a context. The greater the contextual effects are, the greater the relevance is. However, the smaller the efforts required, the greater the relevance of the input [20, p.119].

RT is established on two principles of relevance; *the cognitive principle*, “human cognition tends to be geared to the maximization of relevance”. Several types of cognitive effects are achieved by processing input; *combining with the context to yield contextual implications, strengthening, revision or abandonment of available assumptions, and the communicative principle* “every act of ostensive communication communicates a presumption of its own optimal relevance”. Human cognition tends to maximize relevance. He considers available assumptions to pick out the optimal ones. The addressee stops when the expectations of relevance are achieved. It follows that if the ostensive stimulus is relevant enough to be worth the hearer’s effort to

process it, it will be the most relevant one matching the communicator's abilities and preferences [9, p.248].

To achieve its aim of relevance, a proposition activates several contextual assumptions with minimal processing effort.

Extent Condition 1: "An assumption is relevant in a context to the extent that its contextual effects in that context are large".

Extent Condition 2: "An assumption is relevant in a context to the extent the effort required to process it in that context is small" [9, p.125].

The conditions above indicate that relevance is a cost-benefit notion that engages a balance between the cognitive effects and the processing efforts.

The efforts exerted during processing input to achieve a cognitive (contextual) effect through memorizing, inferring, and other cognitive processes are described by relevance theorists as processing efforts. The form of the utterance determines the hearer's processing efforts of an utterance; if the utterance is complex, then the hearer exerts more effort to process it, and the accessibility of the context; if the utterance is easily accessed, less processing efforts will be required. Longer utterances, for example, typically require more efforts than short ones. Equally, novel words usually need more effort to be processed than common ones [22, p.174].

The lexical adjustment process is part of the overall parallel adjustment utterance interpretation guided by expectations of relevance. Thus, it follows the same inferential comprehension procedure [23, p.254]. For Wilson and Carston, a reliable account of the lexical adjustment process; narrowing and broadening, must consider the following four questions:

1. What activates the lexical adjustment process?
2. What governs the direction of the adjustment process?
3. How does the mechanism of the adjustment process work?
4. When does it stop? [23, p.254].

3. Bidirectional Optimality Model and Relevance Theory Model

Unlike BiOT, RT's model is regarded as a descriptive model. It deals with linguistic aspects that plainly explain what triggers the interpretation process. Its significance also lies in providing an account for both types of the lexical adjustment processes (i.e. narrowing and broadening). Yet, RT has often been criticized for assigning priority to the hearer's direction. It aims to reveal how the hearer arrives at the optimal relevant interpretation with less effort in communication. Scholars such as Blutner, Zeevat and Van Rooy argue that it is equally important to account for relevance from the communicator's point of view [24, p.4].

Blutner's BiOT also has its own problems in that it presents a clear and objective pragmatic framework of analysis. However, it does not show the pragmatic elements that initially stimulate generating the candidates. Besides, it does not clearly consider the role of the context. Moreover, it has largely been employed to account for pragmatic cases in which the narrowing process involved. It has ignored cases of loose uses of language which are later dealt with comprehensively by post Gricean approaches in terms of broadening process [15, p.175].

In light of the above-mentioned reasons and to highlight the difference between the two models concerning their ways of data analysis, two extracts from two different English children's stories are selected as illustrative examples. Each extract is analyzed firstly by RT model and secondly by BiOT model.

4. Data Analysis

1. **“The Red Flower?” said Mowgli. “That grows outside their huts in the twilight. I will get some.”** [25,p.62].

A. RT Model

The utterance is decoded by Mowgli as “The Red Flower”. Mowgli’s utterance is expected to be relevant to the hearer by recognizing the utterance as a communicative act. This will achieve relevance by qualifying what the phrase ‘Red Flower’ is. Logically, the phrase ‘red flower’ indicates a flower that is dyed red. Based on encyclopedic meanings, this phrase stands for love, respect and admiration. These assumptions enable more conclusions to be drawn as: Mowgli will bring red flower which is grown outside people’s houses. According to the context of the utterance, it is manifested that a red flower is only grown in little pots after sunset. Implicit conclusion derivable from this manifestation receives additional activation from other items of the context to be relevant as expected. Another illustration is offered by the author; it is something kept outside people’s houses after sunset, when it gets dark and it is used for light, but animals fear it, only humans can hold it. By broadening the meaning of the phrase ‘red flower’ to mean something red and used for light, animals fear it and are kept outside people’s houses, the overall interpretation of this phrase is that it is metaphorically used to mean ‘fire’. This interpretation would satisfy the expectation of relevance and be accepted as the intended meaning.

B. BiOT Model

Two candidates can be generated for the given form. ‘The Red Flower’
<f₁, m₁>. A flower that its colour is red.

<f₂, m₂>. A red flame of fire.

According to the markedness constraints, A form-interpretation pair is called super-optimal iff:

Interpretive Optimization: no other super-optimal pair can be generated that satisfies the constraints better than it.

Expressive Optimization: no other super-optimal pair can be generated that satisfies the constraints better than it.

The first candidate is the unmarked candidate. It is less complex and can be easily accessed. So, this candidate is evaluated as strong version of the linguistic form. However, the second candidate is the weak version of the utterance. Though it is less accessed, it is more implicitly accepted. Thus, it best satisfies the constraints in such marked situation in which the flower which is red has no place in the utterance interpretation.

2. **“I’m sure it was his treachery and faithlessness that killed poor Catherine Parr,” Jane told me.**

“You are talking about Thomas Seymour?” Jane’s teacher. [26,p.54]

A. RT Model

The utterance is decoded by Jane as “I’m sure it was his treachery and faithlessness that killed poor Catherine Parr,” Jane’s utterance is expected to be relevant to the hearer by recognizing the utterance as a communicative act. This will achieve relevance by qualifying what the phrase ‘Poor Catherine’ is. Logically, the phrase ‘poor Catherine’ indicates having little money or few possessions. Based on encyclopedic meanings, this phrase stands for poverty or lacking something important. These assumptions enable more conclusions to be drawn as: Catherine had lost something important. According to the context of the utterance, it is manifested that Catherine had died. Implicit conclusion derivable from this manifestation receives additional activation from other items of the context to be relevant as expected. Another

illustration is offered by the author; Catherine's husband was unfaithful to her, so she was sad and sick. By narrowing the meaning of the phrase 'poor Catherine' to mean Catherine who had lost her happiness, health and life. By narrowing the adjective in this adjective-noun combination, the overall interpretation of this phrase is that Jane feels pity for Catherine because of her loss. This interpretation would satisfy the expectation of relevance and be accepted as the intended meaning.

B. BiOT Model

Two candidates can be generated for the given form. "I'm sure it was his treachery and faithlessness that killed *poor Catherine Parr*,".

< f_1, m_1 >. Catherine had little money and possessions.

< f_2, m_2 >. Catherine had lost her happiness and her life.

According to the markedness constraints, a form-interpretation pair is called super-optimal iff:

Interpretive Optimization: no other super-optimal pair can be generated that satisfies the constraints better than it.

Expressive Optimization: no other super-optimal pair can be generated that satisfies the constraints better than it.

The first candidate is the unmarked candidate. It is less complex and can be easily accessed. So, this candidate is evaluated as strong version of the linguistic form. However, the second candidate is the weak version of the utterance. Though it is less accessed, it is more implicitly accepted. Hence, it best satisfies the constraints in such marked situation in which Catherine had not lost money but rather her happiness and her life as the context of the utterance indicates.

5. Conclusions

In light of the discussion of lexical pragmatic approaches, their positive sides and drawbacks, and the difference between them and data analysis, it is concluded that RT model is a more explanatory model. It pays the context of the utterance much attention, the matter which guides the hearer to arrive at the communicated implicit intention especially in broadening cases. Yet, the standards of evaluating the optimal interpretation are quite not obvious.

BIOT is a more systematic model as the candidates follow obvious constraints to arrive at the optimal candidate. Nevertheless, the constraints of the model are not adequate enough for accurate evaluation.

Therefore, it is proposed to develop an eclectic model combining the two mentioned models to be explanatory and systematic at the same time. The constraints of the model should be based on relevance principles.

It is also concluded the context of the utterance, in the two illustrative extracts, plays an essential role. Therefore, special attention should be paid not only to the immediate context, but also to other types of contexts such as illustration and mutual manifestation.

CONFLICT OF INTERESTS

There are no conflicts of interest

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