Students' Awareness of the Semantic Differences among Surprise Expressions in English

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Abstract:

This study is designed to examine two hypotheses that question: (1) whether or not Iraqi Learners of EFL have the level of proficiency in English that enables them to be aware of the semantic differences among surprise expressions. (2) Whether or not the context, i.e. the event prompting surprise emotion, helps the learners to be aware of the exact meaning of a certain surprise expression. To test the validity of these hypotheses, an experimental design involving a search process for the correct surprise expression candidate has been used. It has been found that neither the context nor the learners' level of proficiency in English is of any advantage in arriving at an adequate understanding of the expressions used to communicate surprise emotions.

إدراك الطلبة للاختلافات الدلالية لمصطلحات التعجب

ملخص البحث:

صممت هذه الدراسة لاختبار الفرضيتين اللتين تتساءلان عما إذا كان المتعلمون العراقيون للغة الإنكليزية يملكون مستوى من الكفاءة في اللغة الإنكليزية يمكنهم من أدراك الاختلافات الدلالية ما بين مصطلحات التعجب. وكذلك عما إذا كان السياق، وما نعني بالسياق هذا الحدث الحاث للتعجب، يساعد المتعلمين على أدراك المعنى الدقيق لمصطلح تعجب ما. ولاختبار صحة هاتين الفرضيتين، تم استخدام تصميم تجريبي يتضمن عملية البحث عن مصطلح التعجب الذي يناسب السياق من بين أكثر من خيار. ولقد أظهرت النتائج أن كلاً من السياق و مستوى كفاءة اللغة الإنكليزية للمتعلمين لم يكن لهما فائدة في التوصل إلى فهم دقيق للمصطلحات المستخدمة للتعبير عن مشاعر التعجب.

1. Introduction:

There is a set of discrete and universal basic emotions that can be identified by English words, e.g. happiness, anger, surprise, disgust, or shame. Such terms are available in any given language. They reflect a culture unique perspective of people's way of feeling. Among such perspectives is the case of surprise which has often been included in lists of basic emotions, with the implication that it is a biologically in-built human reaction (cf. Ekman, 1992 and Ratner, 2005).

This reaction has been defined differently by different scholars. Reisenzein (2000:1) looks at surprise from the point of view of the syndrome theories of emotions. Such theories treat surprise syndrome as being composed out of four components; namely cognitive (degree of prospectively estimated unexpectedness), experiential (the feeling of surprise), behavioural (degree of response delay on a parallel task), and expressive (the facial expression of surprise). These components are either positively or negatively correlated.

Colston and Keller (1998: 499) view surprise as "a common reaction when events do not turn out as expected". For them, surprise emotion reflects a contrast between what was expected and what actually happened. This contrast is expressed verbally by using linguistic hyperbole and irony, which, in turn, make use of such kind of contrast. Following the same evidence of linguistic usage, Goddard (1997: 171) uses the term *surprised* to designate an emotion which is cognitively based and not a mere reaction. He considers surprise " a feeling one has in response to something immediate and unexpected, in the sense that the experiencer *did not think this would happen*". Contrary to the aforementioned views, Frijda et al. (1992) remark that *surprise* should not be considered an emotion. They reserve the term *emotion* for valenced reactions that are unexceptional.

Despite such diverse viewpoints of *surprise emotion*, most proponents of the basic emotion theory rely mainly on the recognition and analysis of facial expressions. They assume that facial expressions are the mirror of internal bodily states and processes (see Hager and Ekman, 1983; Ruch, 1995; Olveres et al., 1998; and Dimitrovsky et al., 1998). Other studies, however, follow a different orientation. They strongly support the view held by Ratner (2005) that the kind of emotion, specify: emotion is felt and one might surprise that in a particular situation depends upon an understanding of the concept, representation, and stimulus of it. Understanding is not simply attaching a positive or negative value to a situation; it is the understanding of the meaning, characteristics, causes, and consequences of an event.

In this regard, it is of great importance to mention that it is assumed that *surprise words*(1) such as surprised, amazed, startled, shocked, astonished(2), ...etc. mean something in particular situations, i.e. their meaning is different in relation to the contexts in which they appear and to the causes of such feelings (Bamberg, 1997). Goddard (1997) presents such distinction of meaning between the two lexical items *surprised* and *amazed*. Both of these lexical items are used to express the feeling one has in response to something immediate and unexpected; Goddard remarks that *surprised* is different in meaning from *amazed*. The latter is used in contexts that show a stronger kind of surprise. In fact, the reason behind such difference in meaning is a difference in the intensity of the stimulus that causes such feeling.

2. The Hypotheses :

□ Building on the aforementioned line of thinking, this study is intended to test the following hypotheses:

- 1. Iraqi learners of EFL do not have the level of proficiency of English that enables them to recognize the semantic differences among surprise expressions.
- 2. The context(3) of the surprise scenarios is of no advantage in assigning the suitable surprise word for the appropriate situation.

3. Aims of the Study:

The present study aims at exploring

- 1. the ability of our students of EFL to make sense and reasoning of the actions and surprise reactions of others,
- 2. the relationship of surprise expressions with a certain event whether this event is real, remembered, anticipated, or imagined, and
- 3. the importance of using the field of basic emotions in education programs, and in solving real life problems.

4. Previous Research:

Much work has been carried out in detection and identification of surprise emotion in written texts or oral dialogues for various applications. In several previous studies the relation between the intensity of the *feeling of surprise* and the degree of *action delay* was examined (see Meyer et al., 1991; Niepel, 1996; and Schutzwohl, 1998). Some of these studies found that surprising event used induced a reliable reaction time increase on the parallel task, as well as feelings of surprise. While other studies found no reliable positive correlation between reaction time delay and the intensity of felt surprise.

To override such lowered correlation among the components of surprise syndrome, Reisenzein (2000) examined the strength of association between four components of the surprise syndrome, viz. cognitive, experiential, behavioural, and expressive. He found that these components were all positively correlated; the cognitive and the experiential were strongly associated. Moreover, the coherence between the components did not increase with increasing intensity of surprise. Contrary to this, the coherence between the components of the facial expression of surprise, e.g. eyebrow rising, eye widening, mouth opening, tended to increase with intensity.

In the same realm, Schutzwohl and Borgstedt (2005) tested the hypothesis that the surprise mechanism activates a threat detection system that prioritises the processing of threat-related stimuli. The authors conducted two experiments in which the stimulus in the critical trail was presented either during routine behaviour or in the context of a surprising event. The results showed that during routine behaviour, unpleasant stimuli received more attentive resources than pleasant stimuli only if the affective valence of the stimuli was action-relevant. In contrast, in the context of surprise, unpleasant words engaged more attentive resources than pleasant words although they were action-irrelevant. In addition, in the context of surprise, the decision time increase was more pronounced in the pleasant than in the unpleasant experimental group. This finding was interpreted as evidence that the threat detection system of the surprise mechanism initially searches for a threat-related stimulus.

A part from the practical nature of the aforementioned studies, Goddard (1997) followed an analytic orientation. His work outlined Anna Wierzbicka's *natural semantic metalanguage* (*NSM* for short) approach to cross-cultural semantic. He demonstrated this approach through a contrastive study of *surprise-like* words from two languages: Malay and

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English. Goddard found that there is no exact Malay equivalent to English *surprise*; and also that there is no semantic core shared by the various terms except for overlapping semantic correspondences. These results contradict the classic *basic emotions* theory, which reports that surprise is a universal and discrete biological syndrome.

5. The Model Adopted:

Studies in the field of emotions are based on existing approaches that are grouped into three types, viz.

- 1. Observation of non-verbal elements such as prosody, facial and body movements in spoken languages (see Paeschke et al., 1999).
- 2. Understanding the meaning of lexical items expressing emotions (see Hayashi, 1999).
- 3. The analysis of the distribution of grammatical constituents in a sentence and applying it to templates to identify emotion class (see Holzman and Pottenger, 2003 and Fitrianie et al., 2003) □□

This study adopts the second approach to examine how Iraqi students of English interpret surprise expressions expressed in written scenarios. It allows the participants to search for the optimal, i.e. most probable semantic interpretation through other candidate similar semantic interpretations for a specific situation. During this search process, which is based on the participant's understanding of the situation, those expressions that do not resemble the candidate semantic interpretation are superseded.

6. Method of Research :

6-1 Sample of the Study:

The participants of this study were (20) Iraqi undergraduate students majoring in English as a foreign language. They were recruited from the fourth grade at the Department of English, College of Basic Education, University of Mosul. These subjects served in the experiment on a voluntary basis(4) after explaining the procedure of the study for them. All participants were native speakers of Arabic with an average age of (22).

Being majors of English, the participants have had three years of formal education. This means that they have been exposed to a considerable amount of English instruction that enables them to read and understand any English material.

6-2 Materials:

The materials used in this study were taken from Goddard (1997) which were originally taken from popular novels, cartoon novellas, short stories, and magazine articles. They included ten scenarios that have different surprise stimuli. These scenarios were manipulated by replacing the surprise word with a blank space to be filled with one of five surprise expression candidates that would follow.

6-3 Procedure:

Participants were tested collectively in one session. They were told that they would complete a task involving a search process for the suitable surprise expression. Such process depends on their understanding of the scenarios presented and the degree of their awareness that such expressions have a meaning difference. They were then presented with the ten scenarios in a booklet with instructions to read each scenario carefully and then to fill in the blank space with the surprise word that they expect to fit the situation mentioned in the scenario. Participants were also given some explanation for some difficult words in the scenarios. Participants' answers were scored out of (100) marks by assigning (10) marks to each correct answer and (0) marks to incorrect answers and omissions.

7- Results :

To specify participants' awareness of surprise expressions semantic differences correctly, the calculated mean was compared with the hypothesis mean by using T-test for a single sample. Such comparison shows a statistical significant difference in favour of the hypothesis mean. This result indicates that the participants have low-level abilities in recognizing the meaning differences between the surprise expressions used in this experiment. Table (1) illustrates this.

Table (1): The Differences between	en Calculated Mean and Hypothesis
Mean:	

Calculated Mean	Standard Deviation	Hypothesis Mean	T-Value	Sig.
19.50	13.169	50	9.964	.001

As far as the context of the scenarios presented in this experiment is concerned, a comparison between the frequency of correct answers of each scenario and another is made by using Kolmogorov-Samirnov test. The results indicate no statistically significant difference. This means that the context of the scenarios, i.e. what we have called the prompting event, has no effects on assigning the correct choice. Table (2) summarizes this:

Table(2): The Differences between Correct Answers According to the Prompting Event

Scenario		Frequency	Kolmogorov-
no.	Prompting Event	of Correct	Samirnov
110.		Answers	Test Value
1	A hand landed on somebody's	2	
	shoulder while he was deep in		
	his reveries.		
2	Gazing in disbelieve at an	4	
	extraordinary size of an animal		
	tracks.		
3	A Mother didn't realize that her	4	
	son is an adult now.		
4	Her child's fiancée is the	6	0.632
	daughter of someone she thinks		N.S.
	is crazy.		
5	John entered the hall, and	3	
	couldn't believe the reception.		
6	A chicken flapped its wings and	1	
	tried to peck at Pak's feet.		
7	Muhammad and Sitti hear that	6	
	everyone hate them.		
8	Mark doesn't believe that a	11	
	certain harbour used to be an		
	island before.		
9	Nit followed his wife to the	2	
	kitchen to find that everything		
	there is out of character.		
10	An angry behaviour of a wife	1	
	who used to be quiet with her		
	husband.		

8. Discussion of Results:

For the evaluation of the method adopted in this study, the researcher conducted an experiment, the purpose of which is to measure the performance of Iraqi learners of EFL in semantic interpretation recognition of surprise expressions. The first important observation on the results mentioned above in table (1) suggests that our hypothesis according to which our students of EFL are not aware of the semantic differences among surprise expressions is strongly supported by the data. This hypothesis is based on the cognitive approach to lexical items which starts "typically from the tenet that linguistic constructions, particularly words, *mean* something, because they are conceptually represented units" (Bamberg, 1997: 191). As such, the method adopted in this study is supposed to reveal what our students *know* about the meaning of surprise words. It is quite clear that the results indicate that our students have only intuitions about the meaning of these words. They were just guessing at the correct answers. They virtually know nothing about the type of information we might derive from these expressions. They also do not have a recognition capacity for at least some of the facts mentioned in the theory proposed by Fodor and Lepore (2004). This theory encapsulates that the meaning of a word is its use; that knowing the meaning of at least some words requires having a recognition capacity for at least some of the things that it applies to; and that knowing the meaning of a word requires knowing the criteria for applying it. Indeed, we think that Iraqi learners of English are not aware of the above mentioned requirements to assign the correct *surprise word*.

By examining the test papers, we clearly noticed that the students were unable to recognize that the meaning of a certain *surprise word* differs in relation to the context in which it occurs. This leads us to the second hypothesis of this study that is based on the assumption that *surprise words* have local meanings that are dialogically achieved. In other words, *surprise words* gain their meanings in peoples' situated interactions. Students were unable to understand the situational and interactional appropriateness of surprise words. They do not know that, for example, the surprise word *startled* may occur in more than one context. They are unaware that this specific word can be induced by hearing a remark, or by witnessing some out-of-character behaviour; it can also be found in contexts where the experiencer is depicted as day- dreaming or as deep in thought (Goddard, 1997).

It is important, therefore, to mention the very fact that Iraqi learners of EFL have no idea that surprise words are typically used in relation to an event, usually a social event, real, remembered, anticipated, or imagined; that different events call for the use of different surprise words. We do not find one expression for each situation, but a variety of related but visually different expressions. Such expressions form a family that shares certain core configurational properties that distinguish them from other families of expressions. The variations within the *surprise expressions* family reflect the intensity of the emotion, whether this emotion is controlled, whether it is simulated or spontaneous, and the specifics of the event that provoked the emotion (Bamberg, 1997); a fact which is not recognized by Iraqi learners of EFL.

9. Conclusion & Recommendation :

This study is concerned with the issue of how surprise expressions are recognized and understood by Iraqi learners of EFL. By virtue of the hypotheses outlined in this study and the empirical investigation, we conclude that our learners of EFL do not recognize the meaning differences among the plausible candidate words used to figure out the surprise emotion. Moreover, the study provides a useful test for the investigation of whether or not the context, i.e. the prompting event of the scenarios presented in this test can help the students to arrive at the correct explication of surprise words. Although these scenarios make clear the stimulus and degree of intensity of the actions that generate surprise emotions, students were unable to arrive at the specific word used to convey the exact meaning of this emotion. For instance, students mistakenly choose the surprise word *amazed* in scenarios that require words having a stronger kind of surprise. It is clear that Iraqi students have not arrived at the level of proficiency in the FL that enables them to be aware of the emotional outpourings of others. It seems that they lack the common stock of cultural knowledge and shared assumptions about the way in which the social world is, or rather should be, which provides the basis for making sense of and reasoning about the actions and surprise reactions of others.

As such, the researcher highly recommends that teacher education programs need to address two important points in the field of *basic* emotions, viz. (1) the role of emotion in learning and creating emotional decoding skills and (2) ways of using decoded emotions to solve real life problems. Moreover, teachers can help students identify their own emotions and the possible causes/ contexts of emotions by encouraging introspection. We think that the best possible strategy used in this concern is the use of journals to record insights regarding emotions of others. Students should also be trained on the ability to read and feel the social/ emotional signals of others. To put it another way, students must have the ability to interpret signals, because sometimes, overt signals belie covert messages. For example, surprise words or gestures may belie sadness or hurt. This requires students to learn to read between the lines with emotions.

Notes:

- 1. *Surprise words* and *surprise expressions* are being used interchangeably through out this study. □
- There are other surprise expressions such as *taken aback*, *bewildered*...etc., but the researcher preferred using the most widely known expressions.
- 3. There has been a good deal in the linguistic literature about Malinowsky's context of situation which is an important concept in the spoken as well as the written language. In this respect, we should not accept the implicit message that written language may not have a context of situation (see Halliday, 1975: 65). Therefore, the term *context* is being used in this study to refer to the event prompting surprise emotion, e.g. a person's thoughts, behaviors and physical reactions. Such events have evaluative effects in accessing the meaning of *surprise expressions*.
- 4. It has been claimed that motivation and will form the backbone of empirical studies. For this reason, most researchers choose their subjects by way of an advertisement which states that students would be paid cash plus bonuses for their days' participation in such projects; or they receive credit marks on the classes they are weak in. Since we do not have such system at our university, the researcher relied on the voluntary basis to achieve adequate and objective results.

Bibliography :

- 1. Bamberg, M. (1997). "Culture, Words, and Understanding". Culture & Psychology, 3(2), 183-194.
- Colston, H. L. and Keller, S. B. (1998). "You'll never Believe this: Irony and Hyperbole in Expressing Surprise". Journal of Psycholinguistic Research, 27(4), 499-513.
- Dimitrovsky, L.; Spector, H.; Levy-Shiff, R.; and Vakil, E. (1998). "Interpretation of Facial Expressions of Affect in Children with Learning Disabilities with Verbal or Nonverbal Deficits". Journal of Learning Disabilities, 31 (3), 286-292.
- Ekman, P. (1992). "An Argument of Basic Emotions". Cognition & Emotion, 6(3/4), 169-200.
- Fitrianie, S.; Wiggers, P.; Leon, J. M.; and Rothkrants, L. (2003).
 "A Multi-Modal Using Natural Language Processing and Emotion Recognition". In V. Matousek and P. Mautner (Eds.), Text, Speech, and Dialogues. Czech Republic: LNAI.
- Frijda, N. H.; Ortony, A.; Sonnemans, J.; and Clore, G. L. (1992). "The Complexity of Intensity: Issues Concerning the Structure of Emotion Intensity". In M. S. Clark (Ed.), Review of Personality and Social Psychology (vol. 13), 60-89.Newbury Park, CA: Sage.
- Goddard, C. (1997). "Contrastive Semantics and Cultural Psychology: 'Surprise' in Malay and English". Culture and Psychology, 3 (2), 153-181.
- 8. Hager, J. C.; and Ekman, P. (1983). "The Inner and Outer Meanings of Facial Expressions". In J. T. Cacioppo and R. E. Petty (Eds.), Social Psychophysiology: A Sourcebook. New York: The Guilford Press.
- 9. Halliday, M. A. K. (1975). Learning How to Mean: Explorations in the Development of Language. London: Edward Arnold Ltd.
- 10.Hayashi, Y. (1999). "Recognition of Vocal Expression of Emotions in Japanese: Using the Interjection eh 'Korean'". In Proceedings from International Conference of Phonetic Science 99, Univ. of California. Berkely.

11.Holzman, L. E. and Pottenger, W. M. (2003). "Classification of Emotions in Internet Chat: An Application of Machine Learning Using Speech Phonemes".

a. Available: http:// www.fon.hum.uva.nl/praat/

- 12.Meyer, W. U.; Niepel, M.; Rudolph, U.; and Schutzwohl, A. (1991)."An Experimental Analysis of Surprise". Cognition & Emotion, 5, 295-311.
- 13.Niepel, M. (1996). Reaktionen auf Unerwartete Ereignisse (reactions to unexpected events). Unpublished Dissertation, University of Bielefeld.
- 14.Olveres, J.; Billinghurst, M.; Savage, J.; and Holden, A. (1998)."Intelligent, Expressive Avatars". In Proceedings of the First Workshop on Embodied Conversational Characters. Lake Tahoe, California.
- 15.Paeschke, A.; Kienast, M.; and Sendlmeier, W. F. (1999). "F0-Contours in Emotional Speech". In Proceedings from international Conference of Phonetic Sciences 99, Univ. of California. Berkely.
- 16.Ratner, C. (2005). "A Cultural Psychological Analysis of Emotions". Available: http://www.humboldt1.com
- 17.Reisenzein, R. (2000). "Exploring the Strength of Association between the Components of Emotion Syndromes: The Case of Surprise". Cognition & Emotion, 14(1), 1-38.
- 18.Ruch, W. (1995). "Will the Real Relationship between Facial Expressions and Affective Experience Please Stand Up: The Case of Exhilaration". Cognition & Emotion, 9, 33-58.
- Schutzwohl, A. (1998). "Surprise and Schema Strength". Journal of Experimental Psychology: Learning, Memory, and Cognition, 24, 1182-1199.
- 20.Schutzwohl, A. and Borgstedt, K. (2005). "The Processing of Affectively Valenced Stimuli: The Role of Surprise". Cognition & Emotion, 19 (4), 583-600.