

**Deliberate Metaphor Identification in English and Arabic from a  
Multidisciplinary Perspective**

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**Abstract**

This a multidisciplinary approach to linguistic metaphor based on lexical-semantic analysis of the linguistic units in English and Arabic. It expands on selected assumptions of Steen's Deliberate Metaphor Identification Procedure (2017), and critiques the steps proposed, by suggesting a criterion framing psychological, cultural, as well as linguistic tools. Steen's proposal leaves out a bulk of unidentified lexical units, despite claiming that his model can differentiate between deliberate and non-deliberate metaphors. Besides, it does not point out the significance of identifying metaphoric deliberateness which may answer important questions about rationalizing the deliberateness of metaphorical choice. The present study re-presents the notions of vividness and lexical gap as two factors that are closely intertwined with deliberate metaphor usage. To decide whether metaphors are deliberate, research should consider the psychological and socio-cultural background of the speaker. It should be incorporated into a further purpose, which has been the tide recently. It is a promising field because it is related to language teaching and development, and the psychology and the cultural background of the speaker. The resulting approach is tested by application to different languages by citing examples from Arabic and English.

**Keywords:** **Deliberate metaphor, psychology, culture, vividness, lexical gaps**

تميز الاستعارات المقصودة في الإنجليزية والعربية من منظور متعدد هذا البحث متعدد التخصصات قائم على دراسة الاستعارة اللغوية من المنظور المعجمي-الدلالي للوحدات اللغوية في اللغتين العربية والإنجليزية. وترتكز الدراسة على افتراضات منتقاة من نظرية جيرار ستين الخاصة بتحديد الاستعارة المتعمدة (2017)، بل و تقوم بدراسة الخطوات التي قام "ستين" بوضعها مع مدرسة "براجلياز" من قبل في. 2007 و تتقدم الدراسة بمنهج بحث يتضمن الجانب النفسي والثقافي والاجتماعي لاستخدام الاستعارة بشكل متعمد، ربما يحاول إيجاد بديل لتطبيق التحليل الذي قدمه جيرارد ستين 2008، 2011، 2017 و ذلك بسبب عدم قدرة ذلك النموذج على التعامل مع جميع حالات الاستعارة المتعمدة، بل و الإقرار بذلك بالرغم من ادعائه أن النموذج يستطيع التفرقة بين الاستعارة المتعمدة وغير المتعمدة. كذلك لم يقدّم "ستين" ببيان أهمية التفرقة بين النوعين، أو أهمية تعمد استخدام الاستعارة في الحديث، والذي من الممكن أن يجيب على أسئلة كثيرة عن جدوى دراسة هذا الجانب من اللغة الاستعارية .

ذلك، وتعيد الدراسة تسليط الضوء على مفهوم "التأثير الحيوي" و "الفجوة المعجمية" كعاملين رئيسيين في تعمد اختيار اللغة الاستعارية. و لتحديد الغاية من تعمد استخدام الاستعارة يجب أن تشمل الدراسة على الدوافع النفسية والاجتماعية لذلك السلوك اللغوي، كما يجب ربطه بسبب أبعد من ذلك، الشيء الذي تحقق فعلا في السنوات الأخيرة في مجالات عدة مثل تدريس اللغة الثانية، والتحليل اللغوي السياسي .

وتستشهد هذه الدراسة بأمثلة من اللغتين العربية والإنجليزية كما تقدم .

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**1 Introduction**

The notion of metaphorical deliberateness was implied – but not named – by Aristotle’s premeditated division between poetic and non-poetic language. That division indicated that poets, alone, used metaphors deliberately. It was not Long before the line between poets and non-poets was crossed with an interesting – yet unmarked – proclamation by the early renowned Arab scholar Abdul-Qaher Al-Jurjani (1009 -1078) that metaphor is “found in every generation and heard in every tribe...used by poets and non-poets” (Al-Jurjani, 1959, p. 23). (Al-Jurjani, 1959, p.24). Lakoff and Johnson resonated Al-Jurjani in their modern-time *Metaphors We Live By* (1980). The new concept foregrounded the question of intentionality, explicitly this time. ‘The linguist,’ according to Steen, ‘needs a procedure to decide what counts as a metaphor and what does not, and preferably a procedure that leads other linguists to the same conclusions’ (Steen, 2002, p.17). Steen gives credit to Lakoff and Johnson’s breakthrough “in translating language into a list of thoughts, or propositions” because ‘it is easier to see which elements of these propositions have been used literally and which ones have been used metaphorically’ (Steen, 2002, p.18).

**2 Deliberate Metaphor Identification Procedure (DMIP)**

Gerard Steen proposes a three-dimensional model that approaches metaphor from linguistic, conceptual, and communicative perspectives. At the linguistic level (2008, 2010), Steen differentiates between Direct and Indirect metaphors. Direct metaphors are of the ‘A is B’ type. The Indirect type are metaphors in which the cross-domain mapping is not expressed. At the conceptual level, Steen mentions novel versus conventional or dead metaphors. At the communicative level, deliberate metaphors are distinguished from non-deliberate ones. According to Steen, deliberate metaphors are produced on purpose “to change the addressee’s perspective on the referent or topic that is the target of the metaphor, by making the addressee look at it from a different conceptual domain or space, which functions as a conceptual source” (2008, p. 222).

DMIP makes a distinction between deliberate and non-deliberate metaphors and represents the last update of Steen’s Deliberate Metaphor Theory (2008). A systematic, reliable, step-by-step procedure yields more

objective analyses and results that can be replicated by other researchers (Reijnierse et.al., 2017, p.132). DMIP ‘postulates that deliberate metaphors will be processed with more attention, and enhance encoding (Thibodeau, 2017, p. 284).

Steen’s proposal rests on eleven assumptions (2011, 2017) and a five-step metaphor identification model. The assumptions relevant to the present study are the first, second and ninth. that ‘all language use has a linguistic, conceptual, and communicative dimension [sic] and that all language use can be described as related to those dimensions’ (Steen, 2017b, p.4). The second principle is that DMT contends that “both language use and discourse are intentional verbal activities” (Steen, 2017b, p.5). The ninth assumption is that “metaphor as studied in cognitive linguistics and psychology is typically all about meanings of words” (Steen, 2017a, p. 133).

To be selective, again, the present study explores steps number 1 and 4 only, for the following reasons. Steps 2 (identification of metaphor-related concepts) and 1 (identification of metaphor-related words) are complementary. So are steps 3 (identification of comparison) and 4 (identification of analogy and referents). The fifth Step is the identification of implicatures or what “the authors wants (sic) the reader to understand.” (p.12), targeting the speaker’s implied meaning, which looms ambiguous and falls beyond the scope of this study.

Steen’s proposal (2008, 2011b, 2015 & 2017) has attracted considerable attention among metaphor researchers, e.g., Charteris-Black, 2012; Beger, 2011; Deignan, 2011; Perez & Reuchamps, 2014; Gibbs, 2011a, b, 2015a, b; Müller, 2011, 2016; Müsolff, 2016; Roncero et al., 2016; Xu et al., 2016; Reijnierse (PhD), 2017. Reijnierse et. al., introduce DMIP as a tool that can ‘systematically and reliably analyse potentially deliberate metaphor in natural language use,’ (2017, p.132), Perez and Reuchamps suggest that making the distinction between deliberate and non-deliberate metaphors leads ‘to meaningful political insights’ (2014, p.7).

### 3 The Problem

Raymond Gibbs finds DMT ‘quite vague about its claims’ (Gibbs, 2015, p. 73). Perhaps this suggested vagueness resulted from the absence of a clear objective to the identification of Deliberate Metaphor. In a corporal study Steen still recommended labeling borderline metaphors as WIDLII (When In Doubt Leave It In), conceding that lexical units had to be discarded for metaphor analysis because ‘their contextual meaning was completely unclear’ (Steen 2010, p. 768). Out of the sum of 5,000 words, 1831 cases were labelled as WIDLII. To identify a deliberate metaphor

would be significant if there were a mechanism by which we may find out why the speaker ‘deliberated’ a metaphor. There should always be something to build on in the study findings at the end of an investigation that separates deliberate from non-deliberate metaphors.

#### **4 The proposal of this paper**

Within the communicative planetary, this paper approaches Steen’s metaphorical ‘deliberateness’ from a different perspective that accounts for how and why certain metaphors are considered deliberate, and others are not. In the identification procedure, Steen’s rationale hinges on the PRAGGLEJAZZ’s legacy – of which he is a member – i.e., detecting metaphor-related words (MRWs) and contrasting word meaning in isolation and in context. If it matters that the metaphor is ‘deliberate’, then we need to find out ‘why’ the speaker deliberated it in the first place. The communicative dimension is reason enough for deliberating and naturalizing metaphor. In his Processing Hypothesis, Gries argues that a speaker chooses a word order to communicate the intended message in a clear way with as little processing effort as possible for both the producer and the recipient (Gries, 1999, 2003). Here, it sounds logical that other factors are summoned for the naturalization process. Some factors can be closer and more realistic than, say, implicature. Naturalization requires linguistic adaptation, and psychological and social acceptance. On the whole, “there is evidence in every metaphorical expression of ‘active metaphor processing’ (Müller, 2011, p. 61).

Linguistic coherence is a prerequisite in all metaphors. This recompenses what was considered a ‘semantic deviance’ (Levin, 1993, p.117), “some kind of deviation or aberration from proper usage” (Black, 1993, p.22). Such coherence is evidence of metaphorical deliberateness. Metaphorical expression is processed at a level higher, deeper, or more intense than literal words, but words still re-main the containers of meaning in both cases. ‘Theories of how word meanings are represented in general must be built on research on how particular word meanings are represented’ (Levin and Pinker, 1991, p.2). “Nouns, verbs, adjectives, and adverbs ‘map into our mental representation of objects, actions, properties, etc., in the world’ (Vigliocco and Vinson 2014, p.3). Al-Jurjani asserts that metaphor is created “between different lexical categories such as nouns and verbs” (Al-Jurjani, 1959, p.23). Steen acknowledges that “much indirect metaphor is resolved ... by lexical disambiguation, ... and may thus be well resolvable without ... cross-domain mapping.” (Steen et.al., 2010, p. 779). “The ubiquity of metaphor will immediately recognize that "verbs" and "nouns " are not being used literally” (Black, 1993, p.22).

Deliberate metaphors are used either voluntarily, obligatorily, or both. However, in all three cases it maintains the element of deliberateness. One of the initiators of metaphor is the absence of congruence between, for example, nouns and verbs in meaning, which was regarded as a violation of semantic rules. However, this violation may extend to lexical and syntactic norms as well. One type of violation is necessitated by the existence of lexical gaps in the language of the user, whether it is an individual desire or a linguistic necessity.

#### 4.1 Lexical gaps

The common idiom ‘at a loss for words’ is a metaphor. Literally speaking, this condition is known as “limitations in system performance attributable to the inadequacy of their lexicons” (Byrd, in Levin and Pinker, 1991, p.4). Native and non-native speakers use indirect ways to compensate for that inadequacy. Lexical compensation is a mixed blessing; as it shows what words are capable of, as well as their shortcomings. This is the reason for substituting some with others to fill in the lexical gaps. ‘Now we have no literal language for talking about what thoughts do’ (Ortony, 1975, p. 49). There are two ways of looking at Jackendoff’s example ‘the light flashed till dawn’ (Jackendoff, 1997, p.51). Jackendoff highlights the addressee’s ability to understand that, in this context, ‘flashed’ means ‘flashed repeatedly’. The idea is how an addressee bridge the gap if a word that is used alone does not say it all.

In other cases, verbal shortage takes several dramatic forms. Consider the lexical entry for ‘giving a person water (to drink)’, ‘yasqy’ in Arabic. There is only the trite ‘water’ (for plants) and ‘irrigate’ (for the land). ‘Hydrate’ sounds like a Sci-Fi expression. Another example is ‘يطعم’ /jut<sup>h</sup>em/ which means to give a small meal to satiate someone’s hunger. The transitive verb ‘inspire’ equals ‘yolhim’/julhim/ ‘يلهم’ in Arabic, whereas ‘يستلهم’ /yastalhim’/jöstəlhim/ meaning ‘seek inspiration from’ does not have a lexical equivalent in English.

Indirect metaphors partly bridge the lexical gap via borrowing verbs from one collocation to create another. For example, the scope of ‘feed’ (v) is extended to putting data into a computer, which is a metaphor since, as we all know, computers are ‘-human’. The computer gives back only what we put into it. Yet, strangely, we do not use ‘feed’ for ‘charge’ or ‘re-charge’ an electronic device! The use of ‘feed’ had to be extended to cover an action that would have been a vacant lexicon entry. ‘Room’ may be another example meaning a ‘part or division of a building enclosed by walls, floor, and ceiling’ (Oxford Online Dictionary). Later. The lexical entry developed into an uncountable space for more physical objects (people, animals, objects or even air). The

usage of ‘room’ was extended to encompass abstract objects such as ‘love’, ‘suggestion’, ‘creativity’. ‘There is always room for more suggestions.’ This last image adapts a physical object (i.e., room) to suit an abstract noun (i.e., suggestion) respectively. The physical object is adapted to the requirement of the abstract nature of ‘love’, ‘suggestion’ and ‘creativity’. Adaptation is inexorable in numberless cases”. ‘Room’ has recently been introduced as a ‘verb’ in North American (Miriam Webster). These are few of many examples “in which it would seem that there is no possible way of literally saying what has to be said so that if it is to be said at all metaphor is essential as a vehicle for expression” (Ortony, 1979, p. 49).

The above exposition shows that some meanings do not have lexicon entries, some are borrowed to cover more areas, and some are stretched to make ends meet. ‘There are cases in which it would seem that there is no possible way of literally saying what has to be said so that if it is to be said at all metaphor is essential as a vehicle for expression’ (Ortony, 1975, p. 49). For example, the verb ‘kill’ is not metaphorical when used with ‘enemy’, but ‘kill someone’s dream/pride/hope’ is metaphorical and irreplaceable. Lexical gaps oblige users to patch up the linguistic fabric with verbs and nouns from distant combinations and constitute one of the major causes of lexical expansion as “lexical elements are connected through ...similarity, or metaphor.” (Geeraerts, 2009, p. 182). The specificity of the usage of a lexical item “derives from its demarcation with regard to its neighbours” (Trier, 1931: p.3).

The new combinations have always had remarkable contributions to lexical bridging; for “[n]ot only did it expand expressiveness, but it drove the development of syntax, regularizing word order and shaping the development of anaphoric demonstratives and articles” (Ellison & Reinöhl, 2022, p. 1).

Yet, it may be difficult to grasp that a speaker deliberately uses metaphors to expand expressiveness of their language at large, but of their own diction. That’s one small step for man. The effect varies according to the speaker’s influence and the scope of the medium used.

Lexical gap study may shed light on one of the important, let alone realistic, causes of, and reasons for, substitution and mapping in metaphorical expression. It represents the obligatory reverse of the coin. The educational *psychologist* Andrew Ortony argues that metaphor should be seen as ‘necessary and not just nice, not just special frills, but rather, essential, ineliminable devices for our ability to communicate and learn about the world. (Ortony, 1975, p.6). The other happens to be the quest of vividness.

## 4.2 The quest of vividness

According to *The American Heritage Dictionary of the English Language*, (1973) the word vivid comes from the Latin word *vividus*, meaning full of life. Information that is rich in detail, emotionally arousing, and image provoking is commonly believed to be more influential than information which is lacking in these features. Visualization facilitates communication. Draaisma foregrounds the visual element in the Metaphor is a “verbal phenomenon, but it also contains a reference to a concrete object and hence has a pictorial aspect’ (Draaisma, 2000, Abstract).

As a concept, vividness has been defined in many ways. The formal definition of vivid or vividness refers to a quality which imbues words, objects, or events with freshness, vigor, and lifelike images. Metaphorical expression is accepted ‘because it puts an idea more vividly and forcefully than abstraction could do but does not seem seriously deviant in any register’ (Pierce, 2008, p.77). “Vivid information is consistently perceived as colorful, graphic, attention-getting, and interesting” (Myers, 2009, p. 9). Collins et al. (1988) “demonstrated that the manipulation of vividness through the use of concrete and colorful language produced an effect on perceived general persuasion” (Collins et. al., in Myers 2009, p. 9). In modern time it is seen as “videotaped presentations of information” (Weston, 1996, p.3). However, the most common way of conceptualizing vividness has been by manipulating the concrete and colorful language of messages (Bell & Loftus, 1985; Borgida, 1979; Collins, Taylor, Wood & Thompson, 1988; Frey & Eagly, 1993; Gottlieb, Taylor & Ruderman, 1977; Reyes, Thompson & Bower, 1980; Sherer, 1981; Simpson & Borgida, 1991).

Nisbett and Ross (1980), designated three components that make up vividness, namely, emotional interest, concreteness, and proximity. A blend of abstract nouns and verbs conveys a feeling of transparent, lifeless, up-in-the-air tableaux. Information may be described as vivid, that is, as likely to attract and hold our attention and to excite the imagination, to the extent that it is (a)emotionally interesting, (b) concrete and imagery-provoking, and (c) proximate in a sensory, temporal, or spatial way. (Nisbett and Ross, 1980, p. 45). Concreteness, alone, as part of our sensori-motor experience, is “automatically retrieved as part of sentence comprehension” (Vigliocco & Vinson, 2014, p.13). Findings indicate that ‘concrete, specific information was memorable and affected beliefs’ (Sherer, 1984, Abstract).

The second relevant attribute proposed by Nisbett and Ross (i.e., concreteness of information), refers to the extent to which the information



contains specific details about actors, actions, and the specific details of the situational context. In so far as information is rich in detail, it is assumed to contribute to the 'imageability' of the information. These aspects of concreteness are proposed to influence vividness by enhancing the emotional impact of the message.

Embodiment may be understood in terms of concretization in the sense that it adds a visual dimension. "Different languages employ a common technique of metaphorizing body parts to form and express concepts which could have been otherwise difficult to express" (Yu, 2004 in Vahid and Zahedi, 2013, p.4). The 'middle' or 'center' is replaced by the 'heart' of, say, 'a problem'. 'Headbutting', 'handing' and 'stomaching' as some examples. In her thesis, C.M. Weston hypothesizes that 'vividly presented information impacts persuasion by increasing the strength of a message' (Weston, 1996, Abstract). "Vivid attributes will influence the evaluation of alternatives to a greater extent than nonvivid attributes that are included in the same message" (McGill & Anand, 1989, p.190).

This study does by no means exclude or underestimate "the culture cognition link, which is part of the very phenomenon of metaphorical language" (Moser, 2000, p.2). The speaker's awareness of the recipient's experiential limitations could be the reason for the deliberate usage of metaphor to produce the opposite effect. Although George Lakoff's student's boyfriend's "dead end street" (Ibáñez, 1997, p.39) to describe their relationship started the Conceptual Metaphor avalanche, individual experiential factor manifests the recipient's limitations. "Culture shapes metaphorical conceptualization" (Kövecses, 2010, p. 204) and linguistic choices. Kövecses enumerates the many "metaphor-culture interface" issues (2010, p.197) concluding that in addition to the universality of some, metaphorical variation occurs across, as well as within, cultures.

#### **Aim of the present study**

The present study aims to assemble a model of analysis that simultaneously accounts for how and why a linguistic metaphor is deliberately used. The model hinges on regarding metaphor as a communicative tool. The lexical analysis suggested by al-Jurjani is based on the connection between linguistic categories, such as noun-noun; noun-verb; adjective-noun, etc. 'Grammar is the essence of the language' (Al-Jurjani 1988, p.52). Steen pointed out that he had to "separate lexical units that needed to be treated as single units (compounds, phrasal verbs and polywords)" that were collapsed into single cases. (2010, p. 772). This paper suggests that the incorporation of these units in the discussion can be an alternative to MRWs technique and WIDLII principle as

suggested by The Pragglejaz Group (2007) as part of Metaphor Identification Procedure (MIP), and later integrated into DMT by Steen (2008, 2010, 2011). This study also conforms supports Gibbs's dismissal of Steen's notion of demetaphorizing 'conventional metaphors' (Gibbs 2015, p. 78).

#### **4 Constant, VARIANT**

The present study suggests that a direct metaphor consists of (1) a CONSTANT, and (2) a VARIANT. The ground of analogy is ruled out because the study initially investigates why a speaker uses metaphorical speech deliberately, and how. A CONSTANT is the speaker's Target entity and the basic constituent in the analogy. For example, the speaker wants to introduce the American presidential car as a monster. The 'car' is the CONSTANT constituent because the interlocutors must be fully aware of the target entity for the communicative principle. A VARIANT is the other end of the intended marriage. The VARIANT is the constantly changing component because of all the three above reasons. 'LIFE' may be a 'JOURNEY', a 'TEST', or even a 'walking shadow' (Macbeth, Act V, Scene 5). Choosing a certain VARIANT depends mainly on the intention of the speaker.

A VARIANT changes the meaning, and influences the addressee's perception, of the CONSTANT. This is influenced by a variety of interpersonal factors based on psychological, social, and cultural preferences. In this premise, the CONSTANT and VARIANT are essential components, but the blatant presence of each depends on the level of substitution in the metaphor.

Take one of the classical metaphors: 'America is a melting pot'. The lexical constituents are America [N], is [V], melting [Adj] and pot [N]. 'America' is the CONSTANT, unalterable constituent that can be expressed explicitly or implicitly. 'Pot' is the VARIANT constituent. 'Melting' can be excluded temporarily from discussion, since the sentence is still meaningful and metaphorical as 'America is a pot'. The Copula 'is' is also excluded as it is an inactive verb. The metaphoricity is a noun-noun type. The VARIANT 'pot' is the alterable trigger that marks the speaker's metaphorical deliberateness which is intensified by the modifier 'melting'. The 'pot' is the news vis-à-vis the CONSTANT, i.e., 'America'. The lexical category decides which component functions as the VARIANT in the metaphorical architecture, as can be seen in the following sections.

'America', the subject noun is not metaphorical, whereas the speaker deliberately triggers the metaphorical mode with 'pot' which the

addressee does not perceive in terms of its literal sense, but as a home, authority, container, etc.

The level of substitution decides the type of metaphor. In indirect metaphors, for example, partial substitution in “the foundations of trust” implies that ‘the foundations’ is the VARIANT, and ‘trust’ is the CONSTANT in terms of the notion of alterability. The ‘foundations’ may be replaced with ‘pillars’ or ‘roots’, for instance. “The foundations of the building’ is not metaphorical.

## 5 *The Probe*

In the following sections, the study investigates different metaphorical linguistic units. The discussion follows the order of lexical items that occur in an English sentence. Examples from Arabic will be cited to highlight the universal nature of the proposed model and suggest and compare the linguistic behaviour of each. Al-Jurjani draws attention to the essence of metaphorical structure as ‘involving pairs of linguistic units, such as nouns and nouns, nouns and verbs’ (al-Jurjani 1959, p.24). “Nouns and adjectives are used relatively more frequently as potentially deliberate metaphors, while adverbs, verbs, and prepositions are used relatively less frequently as potentially deliberate metaphors” (Reijnierse, 2017, p. 45).

### 5.1 Nominal metaphor

Nouns occur in two positions: the subject and/or the predicate. The VARIANT is case sensitive. Let’s examine the two examples:

- 1- America is a melting pot.
- 2- I saw the heart of the problem.

In (1) ‘America’ stands as the constant component against the alterability of ‘pot’ that can be replaced with another concrete noun such as – for instance – ‘blender’. Being the CONSTANT makes it the speaker’s TARGET. The ‘subject nouns have been found to be recalled best, followed by object nouns and then verbs (Clark, 1966, in Raeburn 1979, p.133). ‘Subject nouns have also been found to make the best retrieval cues for a sentence’ (Horowitz & Prytulak, 1969, in Raeburn 1979, p. 133). The neutral ‘is’ bestows equal weight on both sides in the equation ‘A is B’. In this structure, B is the direct metaphorical VARIANT; the ‘pot’ being the optional component. ‘Melting’ is an intensifier of an already-made metaphor, and it occurs in the predicative section to enhance the element of vividness and adds the willful ness dimension.

A famous Arabic proverb is "القناعة كنز"/al-qana’ah kanz; meaning ‘contentment is a treasure’. In Arabic, the structure of the shortest nominal sentence is unique and highly functional. The predicate does not necessarily contain a verb; the subject is ‘al-qana’ah’ and the predicate is

‘kanz’. The absence of verb to be perhaps implies that the two are synonymous. In Arabic, too, vividness is a speaker’s essential and natural quest, as important as the components of a sentence. ‘Kanz/treasure’ encompasses a diversity of concrete examples of material value.

‘America’ and ‘al-qana’ah’ also share the subject position in both nominal sentences. In sentence recall, subject nouns have been found to be recalled best, followed by object nouns and then verbs (Clark and Card in Raeburn, 1979, p.133). “Subject nouns have also been found to make the best retrieval cues for a sentence, followed by object nouns and then verbs” (Horowitz & Prytulak in Raeburn 1979, p.133). Information recall may have built up as a reason for salient nominal and verbal metaphors.

‘America is a melting pot’, and ‘القناعة كنز/contentment is a treasure’ are nominal metaphors that share the element of concreteness and part at the emotional level. The choice of ‘melting pot’ perhaps reflects the ‘intention’ of the speaker to address the American desire to display the dichotomy of national power and loyalty via its ability to ‘melt’ other nationalities in one pot. ‘Treasure’ is material gain that appeals to the human desire but redirects its rudder towards paradoxical self-discipline.

One final thing about ‘melting’, which is considered an ambiguous adjective in English. The ambiguity stems from the fact that ‘melt’ (v) may be used transitively and intransitively. The ‘pot’ may be transitively melting its contents, or intransitively melting itself. Yet, we say that the former is the *deliberate* meaning. In this context, the intentionality may be based in the psychology and culture of the speaker. In Arabic, ‘melting’ corresponds with two words ‘mutheeb/muḏi:b/’ (Transitive) or ‘muthab/muḏæb/’ (Intransitive). By selecting either, the meaning will remain crystal clear.

In (2), apart from the embodiment in ‘the heart of the problem,’ the noun-metaphor is in the object/accusative position. ‘The problem’ is the CONSTANT. It cannot be replaced with, say, ‘crisis’ or ‘catastrophe’. ‘The heart’ which alludes to the main part is the VARIANT. It is alterable by, say, ‘the essence’, ‘the center’, and it marks the metaphorical intention of the speaker. The core question is, is it a deliberate metaphor? The answer is, considering the vividness quest: it is. ‘The heart of the horse, man, amoeba’ is not metaphorical. As per the gap issue, it used to be an intended metaphor, and clichéd into the Lakoff-Johnson’s everyday class. The choice of the alterable ‘heart’ perhaps implies the part that pumps life into and keeps the problem alive and bothering one interlocutor, or both.

“In memory for complete sentences, the noun has been found to be a more important sentence cue than is the verb” (Thios, in *Kresten &*

Earles 2004, p. 199). Nouns possess the advantage of being strongly connected to a group of other nouns (Earles et al., 1999). The ‘heart’, therefore, can be connected to many abstract and concrete nouns such as ‘the crisis,’ ‘despair’, ‘hope’, ‘mountain’, ‘desert’, etc.

There is evidence that older adults suffer more of a disadvantage compared to younger adults when trying to recall verbs than when trying to recall nouns. Earles et al., claim that when presented with verb-noun pairs, older adults often could not recall the verbs. “Verbs may be difficult for older adults to remember because they are more abstract and less specific than nouns” (Earles et. Al., 1999, p. 131).

## 5.2 Decategorization

### 5.2.1 Denominalization and verbification

Generally, the characteristic of decategorization of lexical classes in English endows it with a sense of flexibility. By decategorization, it is meant that there is no definite line between most lexical categories. This characteristic may seem chaotic for, say, Arabic-speaking nations. In English, nouns, verbs, adjectives, adverbs and even prepositions change category. The following examples may display the situation clearly:

4-a I *booked* a trip to the capital (N □ V)

b- Her last song was a *hit*. (V □ N)

c- He drives so *fast*. (Adj □ Adv)

d- This is a *get-away* excuse. (PrepP □ Adj)

e- She called her *stepfather*. (N □ Adj)

f- I was *down* last week. (Prep □ Adv)

Nouns tend to sacrifice for social acceptance and/or gap filling. Nouns are used as verbs and fuse into compound adjectives. They are verbified to facilitate expression or fill gaps or both. Many verbs in English clearly *rooted* as nouns. The final suffix in ‘petition’ (v) is indisputably nominal. Body parts such as ‘head’, ‘elbow’ and ‘stomach’ have all been verbified instead of ‘hit with the head’/elbow’, and ‘digest with the stomach’. Naturally this has been extended to metaphorical expression.

In Arabic, by similarity or contrast, a similar example shows that one of the many nominal synonyms of ‘head’ is conjugated as a verb. The noun ‘دماغ demagh’ /demæǧ/ (meaning ‘head’) is transformed fully into the verb ‘يدمغ yadmagh’ /jadmaǧ/ quoting the Great reference of The Holy Quran. In the Quran, the same meaning is expressed in several other ways, which implies that the Holy Book is establishing or acknowledging this linguistic rule. Yet, in Arabic, the word is transformed into the proper utterance of the targeted category. The above example ‘دماغ demagh’ /demæǧ/’ shows how it is not used as is when verbified.

|             |   |                       |                                    |
|-------------|---|-----------------------|------------------------------------|
| د م ا غ (n) | جـ(1)ـ(2)ـ(3)ـ /jadmağ (v)                                    |                       |                                    |
|             | (1) adding (ـ) /j/ at the beginning to indicate present tense | (2) a stop on the (ـ) | The pre-final (/a/ ـا ( is deleted |

It might not be verifiable that such lexical items as ‘rain’, ‘butter’ ‘text’, etc., originated as nouns, then they were verbified later than nominalized. Apart from ‘rain’ and ‘butter’, humanity witnessed the birth of ‘text’ as a noun, as well as its transformation into a verb:

5- I do not *text* while driving.

To ‘text’ is to ‘type and send a message’, meaning to ‘inform’, ‘notify’, and a *handful* of other verbs used communicatively (Steen, 2016, p.) for the same purpose. ‘Text’ emerged as a ‘noun’ perhaps till the time of wireless phones. It is equivalent to ‘typing a message and sending it’ and is only used due to the lexical gap

Another example of a verbified noun that, like ‘text’, has been marked from its early days, may be ‘source’, a full-fledged noun that has become a fully functional verb in business English. To ‘source’ is to ‘get’, or ‘obtain’, which have been unmarked for decades. Neither ‘text’ nor ‘source’ is metaphorical in isolation. Both transcend their categories to be naturalized. The user deliberately changes their spots to fill in the lexical gaps.

The study population of this work is the ‘linguistic units’ of a metaphorical utterance which will explain the ‘why’ of the deliberate metaphor. The next linguistic unit in the line is the verbal type, with its transitive and intransitive division.

## 5.2 Verbal metaphor

The choice of verbs changes the meanings of related nouns. “The noun may no longer have the same meaning” (Chafe, in Kersten & Earles 2004, p. 199). Kersten (1998, 2003) has also proposed that the meanings of many verbs are dependent on linguistic context—in particular, the nouns that accompany them (Kersten and Earles, 2004, p.198). ‘Verbs are often not recalled as well as nouns’ (Engelkamp, Zimmer, & Mohr, 1990; Gentner, 1981; Huttenlocher & Lui, 1979). Instead, it seems much more important to remember what each of those objects did—in part, because it may help us to predict what those objects will do when we encounter them again (Kersten and Earles, 2004, p. 199). “It is only by concrete reference that the sentence expresses anything at all’ (Löbner, 2013, p.62). A verb is more broadly defined, more prone to be altered in meaning when conflict of meaning occurs, ... and slower to be acquired by children than nouns’ (Gentner, 1981, p.1) which may be why verbs are

concretized. This introduction puts forward what people do with language and how the human brain handles the behaviour of its linguistic units.

“Verbs may be difficult for older adults to remember because they are more abstract and less specific than nouns” (Gentner, 1981, p. 131). Verbs are either transitive or intransitive. Transitivity highlights the core syntactic aspect that defines the verb-noun relationship. When the verb is part of a metaphor, it is one of two types: either as an intransitive type that metaphorizes its subject, or a transitive type that metaphorizes one or both arguments.

### 5.2.1 Intransitive verb metaphor

Polzella et.al., suggest that “transitive verbs have a close relationship with nouns that does not exist between intransitives and nouns” (2017, p. 538). The following two examples show the difference:

6-a- His conscience is aching.

6-b- The members are building trust.

In (6-a), the subject Argument is the CONSTANT, the speaker’s Target. The verb is the VARIANT, i.e., it may be replaced by any other that will provide the same meaning. The absence of an object assigns metaphor to the subject-verb relationship. The conscience CONSTANT is concretized through the verb attributing this to the senses. The Vividness quest is gratified depending on the structure of the sentence since the nature of ‘conscience’ imposes abstractness on an unmarkedly conforming verb. Due to ‘this abstractness and variation in potential meanings, verbs are often not recalled as well as nouns (Engelkamp, Zimmer, & Mohr, 1990; Gentner, 1981; Huttenlocher & Lui, 1979). Vividness is a requirement, as well as a desideratum. It is not easy to find a verb that is used with ‘conscience’ simply because ‘conscience’ is not concrete, unlike the majority of verbs. Concretization of abstract literal verbs metaphorical speech through which ‘conscience’ can ‘blame’ you (personification), ‘shake’ you and ‘yell’ at you, is the

A Transitive verb maintains the subject’s power over the object as in (6-b). To ‘build trust’ is an indirect metaphor. Which lexical category is the VARIANT in this metaphor? To find that out we need to find the CONSTANT component first. The answer to this question relates to another specificity about the goal of the speaker/writer. What is the speaker’s target: ‘build’ or ‘trust’? This is all about ‘trust’ is what this is all about. ‘Trust’ is an inert noun that is combined with the active verb ‘build’. The abstractness of ‘trust’ is to be matched with the concreteness of ‘build’. Verbal shortage limits collocations of ‘trust’ to metaphorical choices such as ‘build, establish, develop, betray’ (Cambridge Dictionary Online). Yet, what decides what the VARIANT is, is what can be

replaced with an alternative. In this premise, ‘build’ may be replaced with ‘establish’. Again, ‘trust’ is the CONSTANT, ‘build’, the VARIANT.

In Arabic, by comparison, verbs, too, can be used as VARIANTS in metaphor. One of the landmarks of the Prophetic Teaching ‘أفشوا السلام’ /ʔafʃu ʔəsalæm/ meaning ‘spread peace’. The speaker (peace be upon him) deliberately selects ‘afʃu’ (spread) which is a physical/concrete action used with the abstract ‘as-salam’ (peace). However, based on the lexical gap principle, there is scarcely any other verb that fits into this context. ‘Peace’, the abstract CONSTANT component, is the inactive non-metaphorical factor. The VARIANT ‘spread’ is the metaphorical trigger.

Phrasal verbs can be used metaphorically as well. The preposition itself is not the VARIANT, it is essential to the meaning, though. Unlike ‘step up efforts’, ‘step (v) efforts’ is meaningless in dictionary terms. The preposition ‘up’ displays a metaphorical, in addition to the literal, function as much as does the verb ‘step’. ‘Step’ alone indicates movement, ‘up’ direction. So, the verb and the preposition – together – contribute to the metaphoricity of the phrase. The odds are that using the preposition ‘up’ as a verb may be enough as in ‘to up the efforts.’ Yet, in this case, ‘up’ is no longer a preposition. ‘The budget hotel chain is upping its game with a stylish redesign’ is an actual example of the verbal use of ‘up’ in *Cambridge Online Dictionary*. In this case, the trans-verb ‘up’ can be a deliberate metaphor justified in terms of lexical gaps.

### 5.2.2 Predicative metaphor

The predicate is ‘applied to an object in the world and tells the recipient something about it’ (Löbner, 2013, p.62). Predicative VARIANTS are the most constituents of idioms as in the following examples. It is a characteristic of idioms that the CONSTANT is totally hidden by the VARIANT:

7-a He *kicked the bucket*.

b- It *cost an arm and a leg*.

c- You *hit the nail on the head*.

In the first metaphor, “the predicate assigns the subject to an improper category”, (Levin, 1993, p. 118). In these three examples, the intended meaning is substituted with vivid images via selected concrete objects. In predicative metaphor there are two cases. Firstly, the verb is part of the VARIANT as in (7-a) and (7-c). Secondly, in (7-b) ‘cost’ falls outside the VARIANT like, for instance, ‘pay’ in ‘pay through the nose’. In literal expression, ‘cost’ is a fixed lexis, whereas ‘hit’ and ‘kicked’ are not. The speaker could use ‘cost a fortune’, or cost ‘a pretty penny’, which is not



typical of the other two verbs. Another variant of ‘die’ may be ‘bite the dust’. The selection of the VARIANT is culture-based. The variants of the verbs ‘die’ and the noun ‘heavy price’ keep the same lexical category of each, and, as shown, each has a literal alternative. This is evidence that the metaphor is a deliberate choice. However, in (7-c) it is unlikely that a single verb can replace the whole predicate. In Arabic, a single verb can. The verb ‘أصبحت/ʔasəpt/’ means you said/did the right thing. A lexical gap is realized so.

### 5.3 Prepositional vs adverbial metaphor

‘This deal is above-board’ is an example of prepositional-phrasal or adverbial metaphor. ‘Above’ can occur as a preposition in ‘the lamp above the table’, or an adverb as in ‘the paragraph above’, and finally an adjective as in ‘the above paragraph’. The metaphor here consists of a preposition ‘above’ and a noun ‘board’, together functioning as an adjective. But the phenomenal question is which half is the VARIANT, since ‘the deal’ is the CONSTANT. While ‘Above-board’ indicates a place, –the spot where everything is visibly clear– it syntactically functions as an adjective in application.

A ‘pain in the neck’ or a ‘blockbuster’ are two representational VARIANTS of metaphorical phrase structures. The former consists of a preposition and a determiner, hardly indispensable. ‘Blockbuster’ is a nominal compound. In a way, the two expressions are identical in structure if the preposition and determiner are removed: ‘neck-pain’ and ‘blockbuster’

Both ‘brain-washed’ and ‘above-board’ share the notion of deliberateness as well. ‘Aboveboard’ has more literal, down-to-earth synonyms, none of which is non-metaphorical. The reason is: ‘deal’ the CONSTANT component is abstract. Abstract objects can rarely be rounded up by abstract adjectives. An ‘honest’ deal probably alludes to those who carry it out, ‘transparent’ makes it visual. So does a ‘happy ending’. This reorients the discussion back to the marriage between abstract and concrete lexical items, the Vividness Quest. Vividness is reason enough for the above shift from adequate literal to metaphorical expression; the vividness quest for ‘provocative power to engage, delight, or persuade an audience.’ (Pierce 1984, p.2).

### 5.4 Adjective as VARIANT

8- A bad idea. 9- A crazy idea. 10- a bad egg.

The original (literal) version is in (8). An idea can be good or bad, just like a fresh egg and a bad one. A ‘bad egg’ (Adj + N) is a metaphorical expression that represents a definite entity: ‘the egg’. ‘Good’ and ‘bad’ have ceased to be marked as metaphorical. They are unmarkedly used to

describe abstract nouns such as ‘bad intentions’, for instance. A crazy idea is an implicit inference to the person who suggests it. The deliberateness of the choice of metaphorical expression is evident in the selection of ‘egg’ that suggests uselessness and even harm because of its smell, thus intensifying the element of vividness.

In Arabic, the same architecture exists. An example of so many recurrently used idioms may be ‘teenitha waznah’/ ti:nitha waznah/, literally meaning ‘She is made of heavy mud’, according to religious belief. It simply means that the speaker cannot stand that person who is ‘thick’. Heavy ‘mud’ connotes ‘repugnancy’ in Arabic culture. However, this case is curious enough because the soil or mud is not in metonymic relationship with the person (for further research).

#### 5.4.1 Compound-adjective as VARIANT

In English, compound-adjective metaphors work by the same parameters of one-word adjectives. A ‘brain-washed’ entity may be a ‘person’, ‘society’, even a ‘nation’. The first collocation is the least metaphorical, being the most common. A ‘brained’ person is redundant – whence its rare use – ‘brain-washed’, metaphorical. We know which lexical part launches the metaphorical factor; namely both components of ‘brain-washed’. In the other two cases, the metaphor refers to a metonymic connection between ‘society’ and ‘nation’ on the one hand, and human beings on the other. Examine ‘a person who had his brain washed’\*, ‘The media washed her brain’\*, or ‘the government washed the brain of the society’\*. In the last three examples the VARIANT function shifts from the compound adjective to the verb. This might answer the question about the significance of the lexical category in the architecture of a metaphor.

#### 5.4.2 Circumstantial vs long-term adjectives

An adjective may be long-term or circumstantial. That is, when someone is not on time, we say ‘he is late.’ This is a circumstantial adjective because it does not mean that he is always late for appointments. On the other hand, ‘he is a late person’ ushers in a different type of adjective, the long-term adjective borrowed from the circumstantial type. Another example is ‘angry’ in the next two contexts:

11-a- He is angry.

b- He is an angry person.

Circumstantial/timely metaphors constitute a considerable number of adjectives that parallel with ‘angry’ that is used in two almost dichotomous senses in (11a) and (11 b) above. Another *example* is the use of ‘late’ instead of ‘angry in the following examples:

12-a She is late.

b- She is a late person.

Other examples may be ‘upset’, ‘happy’, ‘worried’, ‘disappointed’. The significance of the speaker’s choice of circumstantial adjectives to function as long-term is to deliberately bestow the characteristics of the former on the latter. ‘Person’ is the CONSTANT while the circumstantial adjective in (12-b) is the VARIANT. The elements of a metaphor are strictly outlined through association (between the two types of adjectives) and substitution of one with the other. The license may be extended to more lexical categories such as mere nouns as in:

13- He is a morning person.

In Arabic, which is a language of strict syntactic and semantic rules and logical, an adjective occurs after the noun. It may be a single word, a phrase, or a clause. A helping adverb is required to move from (14) to (15), as shown in the table below:

|                          |  |
|--------------------------|--|
| 14- She is late (now).   | (هي متأخرة الآن)/hia muta?akirah/        |
| 15-She is a late person. | هي متأخرة دائما/hia muta?akirah dæ?imən/ |

In the examples, the indefinite articles ‘an’ and ‘a’ respectively changed the literal meaning into a metaphorical one. In the Arabic version of ‘She is a late person’, the adverb of time, /dæ?imən/meaning ‘always’ , is indispensable for a complete meaning. The Lexical units used cannot change their categories according to the speaker’s intention.

In Arabic, by contrast, every meaning has an independent lexical representation:

|  |                                     |                                     |                                    |                                   |                                 |
|--|-------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|---------------------------------|
| صَدِيق<br>‘Siddeeq’<br>Always believes | صَدُوق<br>‘Sadooq’<br>Always honest | صَدَق<br>‘Saddaq’<br>believe        | صَدَق<br>‘sadaq’<br>Tell the truth | يَصْدُق<br>‘yasdoq’<br>Be honest  | صَدَق<br>‘sidq’<br>truthfulness |
| صَدَق<br>‘Saddaq’<br>Back up           | صَادَق<br>‘sādaq’<br>endorsed       | صَدَاقَة<br>‘sadāqah’<br>friendship | صَدِيق<br>‘sadeeq’<br>friend       | يُصَادِق<br>‘yusadeq’<br>befriend | صَدَاق<br>‘sadāq’<br>Dowry      |

Arabic possesses an amazing derivational lexical network. Such highly disciplinarian language maintains strict lexical categorization. Therefore, the freedom of linguistic behaviour to change from one category to another is not guaranteed either in standard or colloquial Arabic. This maintains the language identity and stability. Verbs are derived from nouns and vice versa, but each category is the product of a precisely distinct mould; therefore, prepositions cannot be used as verbs.

## Conclusion

This study suggests that direct deliberate metaphor identification as proposed by George Steen (2017) may be approached from a different perspective based on lexical semantic relations and encompassing psychological and cultural factors. The proposed ensemble attempts to justify the instantiation of metaphor between satisfying the vividness quest and the lexical gap filling. Vividness is a quest for both interlocutors, and the lexical gap is an impediment that necessitates semantic bridging. A torrent of novel metaphors enriches the lexicons with a plethora of new lexical entries.

The Lexical gap condition in a language. In English, for example, the bulk of 9 sounds that make one-third of the Arabic alphabet do not exist in English. This simply means fewer words, and the inevitable role of metaphor in the language expansion. Some of these are the emphatic coronal sounds in the table below:

| ظ                           | ط                           | ض                        | ص                           |
|-----------------------------|-----------------------------|--------------------------|-----------------------------|
| /ðˤ/                        | /tˤ/                        | /dˤ/                     | /sˤ/                        |
| The emphatic coronal of the | The emphatic coronal of the | The emphatic coronal /d/ | The emphatic coronal of /s/ |
| /ð/                         | /t/                         |                          |                             |

These are variants of sounds that already exist in English. There are other sounds that enrich the Arabic lexicon and that can be found in German and Spanish:

|   |  |   |
|---|--|---|
| ح | The character [ħ] corresponds to pharyngeal fricative [ħ]  | حجامة 'hijamah' /ħidʒæma/:<br>cupping       |
| خ | The character ḵ corresponds to velar stop [k] with air allowed to make uvula flutter 'buchen'              | /bu:ḵæn/: <b>book</b>                       |
| ع | A pharyngeal fricative ([ʕ]) in Dutch and Danish   | "على" 'la' /ʕala/                           |
| غ | Exactly like the Velar /g/, but with air causing the uvula to flutter, represented as 'gh' in English /g̊/ | "غنى" 'ghena' /g̊ina/: richness             |
| ق | Post velar stop, between the [k] place and the uvula   | "قناعة" qana'ah' /ʔanaæʕah/:<br>contentment |

Some sounds need the combination of two or more letters, such as /ʃ/(sh); /ð/ (th); /θ/ (th); /f/ (ph, gh); /tʃ/ (ch). The phonological shortage deprives the English language of a considerable number of lexical combinations, which raises the question of efficacy of the English language as the language of research. This makes room for metaphorical contribution.

Research may develop ways to find out why a speaker deliberately prefers one type of metaphor to another. The absence of word class markers (e.g., denominalization and verbification) encourages metaphorization of different linguistic units, nominal, verbal, adjectival, etc.

It is easy to connect metaphorical interpretation to psychological and social background through studying the immediate constituents of a metaphor. This vision helps to designate which component is CONSTANT, unalterable because it represents the speaker's intention, and which component triggers the metaphor. This other component is a VARIANT that (i) suggests analogy with, and reshapes the addressee's perception of the CONSTANT. As its description implies, the VARIANT represents a variety of suggestions that take the psychology, culture, and personal experience as components in the speaker's selection of metaphorical expressions. The VARIANT changes the interpretation of CONSTANT. The concepts of CONSTANT and VARIANT may be extended to different levels of metaphorical substitution as in 'Poverty stifles love', which contains two CONSTANT components (poverty and love), and one VARIANT (stifles). The VARIANT deliberately reshapes the addressee's knowledge of the CONSTANT according to the social and cultural knowledge of the speaker.

Through concretization, vividness will make tangible, the abstract; close(r), that which is distant; and compassionate that which is not. It is why metaphors are palatable. It provides an example, rather than precept. Concretization is the prominent tool that stands out for a craftsman. The other two sides – proximity and emotional interest – may promote research in this area as well.

The English language has particularly had profited from metaphorical language in terms of lexical gaps long before Lakoff and Johnson made their discovery in 1983. The impact of this absence is reflected in the lexical weight English has, compared to Arabic, as highlighted in 4.1.

This line of thought streams through languages of dissimilar structures, such as English and Arabic. ALL languages have an innate characteristic for expansion which is part of its development. The study has attempted to highlight some linguistic mechanisms the English language has evolved with. In terms of the vividness quest, no difference has been detected between two different languages, Arabic and English specifically. Concretizing abstract nouns and verbs constitutes a universal tool in both languages. Regarding the lexical gap question, English overrules categorical differences between linguistic units. Especially in English, the absence of proper verbs poses challenges for language users. One of the salient methods of adaptation is the use of the 'gerund'.

The notion of 'intentionality' in metaphorical expression is rooted in the psychology of the speaker. Vividness is voluntary, as much as

lexical gap is obligatory, enough, for the deliberate use of metaphor. The intention of the speaker is not measured against using Metaphor Related Words, but in the existence of a fixed target unit – noun or verb – in pivotal position, and a VARIANT that makes the connections. Thus, an idea is an idea. It can be diabolic, dirty, sweet, fiery, hilarious, destructive, big, small, etc., in the eye of the beholder.

To decide whether metaphors are deliberate, research should consider the psychological, socio-cultural background of the speaker. It should be incorporated into a further purpose, which has been the tide recently. It is a promising field because it is related to language teaching and development, the psychology of the speaker, the cultural background, among other factors. The present study attempted to integrate all the above as an alternative to Steen's somewhat vague method of deliberate metaphor identification.

## References

- Al-Jurjani, A. Q. (1988). *The Secrets of Eloquence in Rhetoric*. (ed. H. Reda). Beirut: Dar el-Mas. Lebanon.
- ‘Ateeq, A. (1985). *Rhetoric*. Arab Nahda Printing house.
- Beger, A. (2011). Deliberate metaphors? An exploration of the choice and functions of metaphors in US-American college lectures. *metaphorik.de*
- Bell, B. E., & Loftus E. F. Vivid Persuasion in the Courtroom. *Journal of Personality Assessment*. Volume 49, 1985 - Issue 6.
- Black, M. (1993). More about metaphor. *Metaphor and Thought*. Ortony, A. (ed.) 2nd ed. Cambridge.
- Borgida, E. (1979). Character proof and the fireside induction. *Law and Human Behavior*, 3, 189-202.
- Byrd, R. J. (1989a). Large Scale Cooperation on Large Scale Lexical Acquisition. A paper presented at the Workshop on Lexical Acquisition, IJCAI, Detroit.
- Byrd, R. J. (1989b), Discovering Relationships among Word Senses. *Dictionaries in the Electronic Age: Proceedings of the Fifth Annual Conference of the Centre for the New OED*. Waterloo: University of Waterloo: 7-79.
- Chafe, W. L. (1970). *Meaning and the structure of language*. Chicago: University of Chicago Press.
- Charteris-Black, J. (2012). Forensic deliberations on purposeful metaphor. *Metaphor and the Social World*, 2(1), 1–12. doi: 10.1075/msw.2.1.01cha.
- Clark, H. H. (1966). The prediction of recall patterns in simple active sentences. *Journal of Verbal Learning and Verbal Behavior*, 5, 99-106.
- Collins, R. L. et.al., (1988). The Vividness Effect: Elusive or Illusory? *Journal of Experimental Social Psychology*. Academic Press, Inc.
- Deignan, A. (2011). Deliberateness is not unique to metaphor. A response to Gibbs. *Metaphor and the Social World*, 1(1), 57–60. doi: 10.1075/msw.1.1.05dei.
- Draaisma, D. (2000). *Metaphors of memory: A history of ideas about the mind*. Cambridge University Press.
- Earles, J.L., Kersten, A.W., Turner, J.M., & McMullen, J. (1999). Influence of age, performance, and context on verbatim and gist recall of verb-noun pairs. *Journal of General Psychology*, 126, 97-110.
- Earles, J.L., Kersten, A.W. (2010). *Adult Age Differences in Memory for Verbs and Nouns*. University Boca Raton.
- Ellison, T. M. & Reinöhl, U. (2022). Compositionality, Metaphor, and the Evolution of Language  
International Journal of Primatology.
- Engelkamp, J., Zimmer, H.D., & Mohr, G. (1990). Differential memory effects of concrete nouns and action verbs. *Zeitschrift fur Psychologie*, 198, 189-216.

- Frey, K. P. & Eagly, A. H., (1993). Vividness Can Undermine the Persuasiveness of Messages. *Journal of Personality and Social Psychology*. 65(1), 32–44. <https://doi.org/10.1037/0022-3514.65.1.32>
- Forceville, C. (2006). Non-verbal and multimodal metaphor in a cognitivist framework: Agendas for research. *Cognitive Linguistics: Current Applications and Future Perspectives*. Berlin, 379–402.
- Forceville, C. (2006b). The source-path-goal schema in the autobiographical journey documentary: McElwee, Van der Keuken, Cole. *The New Review of Film and Television Studies*, 4, 241–261
- Geeraerts, D. (2009). *Theories of Lexical Semantics*. Oxford University Press.
- Gentner, D. (1981). Some interesting differences between verbs and nouns. *Cognition and Brain Theory*. 4, 161–178.
- Gibbs, R. W. (2011a). Advancing the debate on deliberate metaphor. *Metaphor and the Social World*, 1(1), 67–69. doi: 10.1075/msw.1.1.07gib.
- Gibbs, R. W. (2011b). Are deliberate metaphors really deliberate? A question of human consciousness and action. *Metaphor and the Social World*, 1(1), 26–52. doi: 10.1075/msw.1.1.03gib.
- Gibbs Jr., R. W., Colston, H. (2012). *Interpreting Figurative Meaning*. Cambridge University Press, New York.
- Gibbs, R. W. (2015a). Do pragmatic signals affect conventional metaphor understanding? A failed test of deliberate metaphor theory. *Journal of Pragmatics*. 90, 77–87. doi: 10.1016/j.pragma.2015.05.021.
- Gibbs, R. W. (2015b). Does deliberate metaphor theory have a future? *Journal of Pragmatics*. 90, 73–76. doi: 10.1016/j.pragma.2015.03.016.
- Gottlieb, D. E., Taylor, S. E., and Ruderman, A. (1979). Cognitive Bases of Children's Moral Judgments. *Developmental Psychology*, 13,
- Gries, S. T. (1999). *Particle movement: A cognitive and functional approach*. Walter de Gruyter 105-145
- Gries, S. T. (2003). Testing the sub-test: A collocational-overlap analysis of English -ic and -ical adjectives. *International Journal of Corpus Linguistics*, 8(1), 31–61.
- Halliday, M.A.K. and Matthiessen, C. (2004). *An introduction to functional grammar*. New York: Oxford University Press Inc.
- Horowitz, L.M., & Prytulak, L.S. (1969). Reintegrative memory. *Psychological Review*, 76, 519-53.
- Huttenlocher, J., & Lui, F. (1979). The semantic organization of some simple nouns and verbs. *Journal of Verbal Learning and Verbal Behavior*. 18, 141-162.
- Ibáñez, F. J. (1997). An Interview with George Lakoff. *Cuadernos de Filología Inglesa*.
- Jackendoff, R. (1997). *The architecture of the language faculty*. Cambridge, MIT Press.



- Kersten, A. W. & Earles, J. L. Semantic context influences memory for verbs more than memory for nouns. *Memory and Cognition*. Psychonomic Society Inc. 32 (2), 198-211
- Kittay, E. & Steinhart, E. (1987) Metaphor: Its Cognitive Force and Linguistic Structure. *Zeitschrift für Ethik und Moralphilosophie*.
- Kövecses, Z. (2010). Language and Culture. *Acta Universitatis Sapientiae, Philologica*, 2, 2. 197-220
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago, IL: University of Chicago.
- Levin, B. & Pinker, S. (1991). *Introduction to special issue of Cognition on lexical and conceptual semantics Cognition* 41 (1-3):1-7 (1991)
- Levin, S. (1993). Language, concepts, and worlds: Three domains of metaphor. *Metaphor and Thought*. Ortony, Andrew (ed.) 2nd ed. Cambridge. *Longman Dictionary of Contemporary English Online*. July 2016. <http://www.ldoceonline.com/>.
- Löbner, S. (2013). *Understanding Semantics*. London and New York. Routledge.
- McGill A. L. & Anand, P. (1989). The Effect of Vivid Attributes on the Evaluation of Alternatives: The Role of Differential Attention and Cognitive Elaboration. *Journal of Consumer Research*. Vol. 16. Oxford University Press.
- Moser, K. S. (2000). Metaphor Analysis in Psychology—Method, Theory, and Fields of Application. *Qualitative Social Research*. Vol11, No. 2-2000, June.
- Müller, C. (2011). Are ‘deliberate’ metaphors really special? Deliberateness in the light of metaphor activation. *Metaphor and the Social World*, 1(1), 61–66. doi:10.1075/msw.1.1.06mul.
- Müller, C. (2016). Why mixed metaphors make sense. In R. W. Gibbs (Ed.), *Mixing metaphor* (31–56). Amsterdam: John Benjamins.
- Musolff, A. (2016). Cross-cultural variation in deliberate metaphor interpretation. *Metaphor and the Social World*, 6(2), 205–224. doi: 10.1075/msw.6.2.02mus.
- Myers, J. R. (2009) *The Persuasion Effects and Mechanisms of Vivid Imagery Inducing Strategies in Negative Health Messages: Exploring the Roles of Motivation, Affect, and Message Substance*. A dissertation submitted to the faculty of the graduate school of the University of Minnesota.
- Nisbett, R. E., & Ross, L. (1980). *Human inference: Strategies and shortcomings of social judgment*. Englewood Cliffs, NJ: Prentice Hall Englewood Cliffs, NJ, USA: Prentice-Hall.
- Ortony, Andrew (ed.) (1979/1993). *Metaphor and Thought*. 2nd ed. Cambridge.
- Perrez, J. & reuchamps, M. (2014). Deliberate metaphors in political discourse: the case of citizen discourse. University of Liege.

- Plümacher, M. & Holz, P. (eds.) (2007): *Speaking of Colors and Odors*. Amsterdam.
- Pankhurst, A. (1995). Aspects of reference in figurative language. *Edinburgh Working Papers in Applied Linguistics*, n. 6, 69-77.
- Pierce, R. S., & Chiappe, D. L. (2008). The roles of aptness, conventionality, and working memory in the production of metaphors and similes. *Metaphor and Symbol*, 24(1), 1–19.
- Polzella, J. D. (2017). Psychological aspects of transitive verbs. *Journal of Verbal Learning and Verbal Behavior* · Florida State University, Tallahassee, Florida.
- Pragglejaz (2007). MIP: A method for identifying metaphorically used words in discourse. *Metaphor and Symbol* 22, 1–39.
- Raeburn, V. P. (1979). The role of the verb in sentence memory. *Memory and Cognition*. Psychonomic Society Incorporation. 7(2),133-140
- Reijnierse, W. G. et al. (2017). DMIP: A Method for Identifying Potentially Deliberate Metaphor in Language Use. Centre for Language Studies, Radboud University, Nijmegen, PO Box 9103, 6500 HD Nijmegen, The Netherlands
- Reijnierse, W. G. (2017). *The Value of Deliberate Metaphor*. Amsterdam.
- Reyes, R. M., Thompson, W. C. & Bower. G. H. (1980). Judgmental biases resulting from differing availabilities of arguments. *Journal of Personality and Social Psychology*, 39, 2-12.
- Roncero, C., De Almeida, R. G., Martin, D. C., & de Caro, M. (2016). Aptness predicts metaphor preference in the lab and on the internet. *Metaphor and Symbol*, 31(1), 31–46. doi:10.1080/10926488.2016.1116908.
- Shedler, J., & Manis, M. (1986). Can the availability heuristic explain vividness effects? *American Psychological Association*. Washington, D.C.
- Sherer, M. & R. W. Rogers (1984). The role of vivid information in fear appeals and attitude change. *Journal of Research in Personality*. Volume 18, Issue 3, 321-334.
- Simpson, J.A. & Borgida, E. (1991). The effects of vividness on persuasion: *The role of personal involvement*. Unpublished manuscript, Texas A & M University, College Station, TX.
- Steen, G. J. (2002). Towards a procedure for metaphor identification. *Language and Literature*. Sage Publications
- Steen, G. J. (2008). The paradox of metaphor: Why we need a three-dimensional model of metaphor. *Metaphor and Symbol*, 23(4), 213–241. doi:10.1080/10926480802426753.
- Steen, G. J. et al. (2010) *Metaphor in usage* © Walter de Gruyter
- Steen, G. J. (2011a). From three dimensions to five steps: The value of deliberate metaphor. *Metaphorik.de*, 21, 83–110.

- Steen, G. J. (2011b). The contemporary theory of metaphor—Now new and improved! *Review of Cognitive Linguistics*, 9(1), 26–64. doi: 10.1075/ml.9.1.03ste.
- Steen, G. J. (2015). Developing, testing and interpreting deliberate metaphor theory. *Journal of Pragmatics*, 90, 67–72. doi: 10.1016/j.pragma.2015.03.013.
- Steen, G. J. (2017a). Attention to metaphor: Where embodied cognition and social interaction can meet, but may not often do so. In B. Hampe (Ed.), *Metaphor. Embodied cognition and discourse* (pp. 279–296). Cambridge: Cambridge University Press.
- Steen, G. J. (2017b). Deliberate Metaphor Theory: Basic assumptions, main tenets, urgent issues. *Intercultural Pragmatics*, 14(1): 1–24
- Thibodeau, P. (2017). The function of metaphor framing, deliberate or otherwise, in a social world. *Metaphor and the Social World*. John Benjamins Publishing Company.
- Thios, S. J. (1975). Memory for general and specific sentences. *Memory Cognition*. 3: 75–7.
- Trier, J. (1931). *The German vocabulary in the sense district of the mind: The History of a Linguistic Field I. From the Beginnings to the Beginning of 13th century*. Heidelberg: Winter.
- Vigliocco, G. & Vinson, D. P. (2014). Semantic Representation. <https://www.researchgate.net/publication/242401981>
- Weston, C. M. (1996). *Effects of Vividness, Personal Relevance, and Argument Strength on Responses to AIDS Prevention Messages*. UMI Company
- Xu, C., Zhang, C., & Wu, Y. (2016). Enlarging the scope of metaphor studies. *Intercultural Pragmatics*. 13(3), 439–447. doi:10.1515/ip-2016-0018.
- Yu, N. (2004). The eyes for sight and mind. *Journal of Pragmatics*, 36, 663–686.