

The Arabic and Hebrew exponents of simple, universal mental predicates and speech concepts

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ملخص:

بحثت هذه المقالة، وكشفت النقاب، عن المقابلات اللغوية للأفعال العقلية (THINK, KNOW, WANT, DON'T WANT, FEEL, SEE, HEAR) ومفاهيم الكلام (SAY, WORDS, TRUE) في ثلاث لغات: العربية الفصحى، العربية الجشّية، والعبرية. بالإضافة لذلك، بحثت الدراسة في أطر الدمج لهذه الأفعال والمفاهيم وأثبتت أن لهذه الأطر مقابلات تامة في اللغات الثلاث. هذه النتائج تعزز فرضية أن هذه الأفعال والمفاهيم هي بسيطة وعالمية.

Abstract

This paper has investigated and identified the exponents of mental predicates (THINK, KNOW, WANT, DON'T WANT, FEEL, SEE, HEAR) and speech concepts (SAY, WORDS, TRUE) in three languages: MS Arabic, Jish Arabic, and Hebrew. In addition, it has looked into their combinatorial frames and demonstrated that all of them have exact equivalents in the three target languages. The results corroborate the hypothesis that these predicates and concepts are simple and universal.

Keywords: mental predicates; speech concepts; NSM; Semitic languages; MS Arabic; Jish Arabic; Hebrew

1 Introduction

1.1 Natural Semantic Metalanguage

The Natural Semantic Metalanguage (NSM) is a theory that has been developed by Anna Wierzbicka (ANU), Cliff Goddard (Griffith University), and colleagues since the 1970s. Of the different concepts on which NSM is based, the most important one is that of semantic primes.

A semantic prime is defined as a simple, universal concept. NSM researchers have so far identified 65 semantic primes; the English exponents of these primes are presented in Table 1 below (note that semantic primes are always typed in SMALL CAPS):

Table 1. English exponents of semantic primes (Goddard and Wierzbicka, 2014)

English exponents	Semantic group
I, YOU, SOMEONE, SOMETHING~THING, PEOPLE, BODY	Substantives
KIND, PART Relational	substantives
THIS, THE SAME, OTHER~ELSE	Determiners
ONE, TWO, MUCH~MANY, LITTLE~FEW, SOME, ALL	Quantifiers
GOOD, BAD	Evaluators
BIG, SMALL	Descriptors
THINK, KNOW, WANT, DON'T WANT, FEEL, SEE, HEAR	Mental predicates
SAY, WORDS, TRUE	Speech
DO, HAPPEN,	Actions, events,
MOVE, TOUCH	movement, contact
BE (SOMEWHERE), THERE IS,	Location, existence,
BE (SOMEONE/SOMETHING), BE (SOMEONE)'S	possession, specification
LIVE, DIE	Life and death
WHEN~TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME,	
FOR SOME TIME, MOMENT	Time
WHERE~PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE	Space
NOT, MAYBE, CAN, BECAUSE, IF	Logical concepts
VERY, MORE Intensifier,	augmentor
LIKE	Similarity

Notes: • Primes exist as the meanings of lexical units (not at the level of lexemes); • Exponents of primes may be words, bound morphemes, or phrasemes; • They can be formally complex; • They can have language specific combinatorial variants (allolexes) indicated by '~'; • Each prime has well-specified syntactic (combinatorial) properties.

Some elaboration is in order regarding the description of a semantic prime as being (1) a concept, (2) simple, and (3) universal. Firstly, a semantic prime is described as a concept because it can be realized differently in different languages. In one language it can be a bound morpheme, in another a word, and yet in another a phrase; for instance, the semantic prime THERE IS are two words in English, but its MS Arabic equivalent *hunālika/yuwjad* is one word.

Secondly, a semantic prime is simple in the sense that it cannot be defined further using simpler concepts. The simplicity of a semantic prime candidate is proven through trial and error. NSM researchers attempt to define the candidate using simpler terms; if they succeed, it is discarded; otherwise, its primeness is recognized.

Thirdly, a semantic prime is universal in the sense that it has exact equivalents in all languages. These exact equivalents are termed exponents in NSM. Given that the number of languages is around 7,000, one might wonder how NSM researchers proved that a certain proposed semantic prime has exact equivalents in all these languages. In the end, such a task borders on the impossible. This is because it requires linguists (or at least highly qualified students of linguistics) each of whom is proficient in at least one of these languages, a requirement that cannot be met in today's world. To overcome this difficulty, NSM researchers have studied

22 genetically and typologically distinct languages (Amberber, 2008; Goddard and Wierzbicka, 1994, 2002; Peeters, 2006). But 22 out of 7,000 is only 0.3%, a number that the average person might be tempted to dismiss as unrepresentative. However, if the average person knows that these 22 languages belong to 10 major language families and that there are 135 major language families in the world, they may change their opinion: NSM researchers have succeeded in sampling 7.4% of the major language families (Habib, 2021).

Needless to say, the more the languages that are investigated, the stronger becomes the claim that semantic primes are universal. Thus, the aim of this paper is to add three more languages, namely Modern Standard (MS) Arabic, Jish Arabic, and Hebrew to the list of languages in which the exponents of the semantic primes have been identified. Not all 65 semantic primes will be identified in this paper, as some of them have already been identified (Habib, 2019, 2020, 2021). The ones that will be identified in this paper are the mental predicates (THINK, KNOW, WANT, DON'T WANT, FEEL, SEE, HEAR) and speech concepts (SAY, WORDS, TRUE).

Before moving on to the next section, which acquaints the reader with the three target languages, a comment is in order on the importance of the quest for simple, universal concepts. Finding such concepts and using them in semantic analysis allow us to evade obscurity and ethnocentrism. Think of the *Online Merriam-Webster's Dictionary's* definition of English *eye*: “a specialized light-sensitive sensory structure of animals that in nearly all vertebrates, most arthropods, and some mollusks is the image-forming organ of sight.”¹ Clearly, many of the words in this definition are much more complex and obscure than the word being defined. If the purpose of a definition is to explain the meaning of a certain word, this definition has not successfully achieved its aim. As for ethnocentrism, defined as the viewing of one culture through the prism of another culture, it can be evaded only if the concepts used are universal. If they are language- and culture-specific, the description runs the risk of not describing the cultural insider's perspective, which means that the description may not fully be accurate. Consequently, finding simple, universal concepts, identifying their exponents in as many languages as possible, and using these exponents in semantic analysis help in warding off obscurity and ethnocentrism.

1.2 Modern Standard (MS) Arabic, Jish Arabic, and Hebrew

The Arabic language is diglossic. It has two forms, high and low. The high form consists of only one variety, which is not spoken natively by anyone. Still, it is the standard variety, and it is referred to as Modern Standard (MS) Arabic. Because it is the standard variety, it is used in formal contexts, such as sermons, lectures, speeches, news, and courts (cf. Crystal, 1997, p. 43).

The low form, on the other hand, comprises a massive number of varieties. Each variety is spoken natively by a certain community, and those varieties which are geographically adjacent to each other are mutually intelligible. Thus, the greater the geographical distance between any two varieties, the less likely they are to be mutually intelligible (save for the Egyptian, Syrian, and Lebanese varieties, which seem to be understood by the majority of Arabic speakers owing to the media (see Ech-Charfi, 2019). All low-form varieties are considered non-standard, and their use is restricted to informal contexts, such as everyday conversation and soap operas.

One of the non-standard varieties is Jish Arabic. It is spoken natively by approximately 3,000 people residing in a small town, called Jish, in northern Israel. Like the overwhelming majority of non-standard Arabic varieties, Jish Arabic has not been documented; nor does it have a writing system of its own. Its use in writing is restricted to instant messaging. Before the introduction of WhatsApp in Jish some ten years ago, Jish Arabic was written using Roman script. After the introduction of WhatsApp, Jish Arabic began to be written using Arabic script.

Hebrew is the official language of Israel, and it is the native language of about 6.3 million Jewish Israelis. What I call ‘Hebrew’ in this article is called ‘Modern Hebrew,’ ‘Israeli Hebrew,’ or ‘Israeli’ by other linguists (Junger, 1987; Rozen, 1962; Zuckermann, 2009). Hebrew has its roots in Biblical Hebrew. The latter died out in about AD 200, and it was not until the 19th century that people attempted to revive it (Kutscher, 1982; Saenz-Badillos and Elwolde, 1993). While the roots of Hebrew are found in Biblical Hebrew, some, if not many, of its semantic and syntactic features are different from those of Biblical Hebrew. This can be ascribed to the fact that Hebrew is based not only on Biblical Hebrew but also on Yiddish, with both being considered primary contributors to it

¹Retrieved from www.m-w.com (accessed on May 4, 2022).

(Zuckermann, 2004, 2005, 2009).

2 Methodology

In identifying the Hebrew and Arabic exponents of target mental predicates and speech concepts, I will rely on the guidelines which are used by Habib (2019, pp. 192–193) and which I reproduce here:

- In a given language, if (a) there appears to be only one candidate for a certain semantic prime, and (b) this candidate satisfies all the combinatorial frames² of the semantic prime, then this candidate is to be regarded as the exponent of this semantic prime.
- If (a) there appear to be two or more candidates for a certain semantic prime, but (b) only one of them satisfies all the combinatorial frames of the semantic prime, then only this candidate is to be regarded as the exponent of this semantic prime.
- If (a) there appear to be two or more candidates for a certain semantic prime, and (b) all of them satisfy all the combinatorial frames of the semantic prime, but (c) only one of them seems to be semantically simpler than all the others, then only this candidate is to be regarded as the exponent of the semantic prime.
- If (a) there appear to be two or more candidates for a certain semantic prime, and (b) all of them satisfy all the combinatorial frames of the semantic prime, and (c) there does not appear to be any semantic difference between them, but (d) one of them is much more frequent than all the others, then only this candidate is to be regarded as the exponent of the semantic prime³.
- If (a) there appear to be two or more candidates for a certain semantic prime, and (b) all of them satisfy all the combinatorial frames of the semantic prime, and (c) there does not appear to be any semantic difference between them, and (d) they are not (much) different in their frequency, then all of them are to be regarded as allolexes of the exponent of the semantic prime.

3 Mental predicates and speech concepts

Mental predicates are those concepts that relate to thinking, knowing, wanting, feeling, seeing, and hearing. It is worth noting that, although the simplicity and universality of these concepts were established through scientific cross-linguistic investigations in the 1990s, the indefinability of THINK was already known to 17th-century philosophers. For example, the French philosopher Arnauld (1662, p. 36) wrote in his treatise *The Art of Thinking*:

Obviously, we conceive nothing more distinctly than we conceive our own thought. Nor is there a clearer proposition than ‘I think; therefore, I am.’ We can be certain of this proposition only if we can conceive distinctly what ‘to be’ and ‘what to think’ mean. We require no explanation of these words so well understood that in explaining them we only obscure them. (p. 36)

As for speech concepts, they refer in NSM to the three concepts of saying, words, and true. In what follows, I will identify the MS Arabic, Jish Arabic, and Hebrew exponents of each of these ten concepts.

²A combinatorial frame (also called ‘canonical construction’) is a sentence that is simple and universal. It cannot be simplified further, and it has exact equivalents in all languages.

³Like Habib (2019), I will use corpus analysis to check frequency. To check frequency in MS Arabic, I will use the ArabiCorpus (150+ million words), and, for Hebrew, I will use HebrewCorpus (170+ million words).

3.1 THINK

In MS Arabic, Jish Arabic, and Hebrew, THINK is found in the following verbs, respectively, YUFAKKIR, BIFAKKER, and LAKHASHOV. These exponents can take any personal subject, and they can be followed by a psychological topic (about X), manner (like this), or a propositional content (that P). In addition, they can take a complement and an additional argument (something good/bad about someone/something) (cf. Peeters et al., 2006b). Hence, they satisfy all the following combinatorial frames:

- (1) 1. someone thinks about someone else/something.
2. someone thinks something (good/bad) about someone else/something.
3. someone thinks like this:
4. someone thinks that—

It is worth noting, however, that the combinatorial frame (1.2) does not sound normal either in MS Arabic or in Jish Arabic, but it is not impossible.

The equivalents of the four combinatorial frames in Arabic and Hebrew are rendered below. Example (2) illustrates the use of MS Arabic YUFAKKIR, example (3) illustrates the use of Jish Arabic BIFAKKER, and example (4) illustrates the Hebrew LAKHASHOV:

- (2) 1. aḥadun yufakkiru bi' aḥadin ākhar/bishay'in.
2. aḥadun yufakkiru shay'an (jayyidan/sayyi'an) 'an aḥadin ākhar/shay'in.
3. aḥadun yufakkiru hākadhā:
4. aḥadun yufakkiru anna—
- (3) 1. ḥadā bifakker biḥada tānī/bi'ishī.
2. ḥadā bifakker ishī (mnīḥ/mish mnīḥ) 'an ḥadā tānī/ishī.
3. ḥadā bifakker hēk:
4. ḥadā bifakker innu—
- (4) 1. mishehu khoshev al mishehu akher/mashehu.
2. mishehu khoshev mashehu (tov/ra) al mishehu akher/mashehu.
3. mishehu khoshev kakha:
4. mishehu khoshev she—

3.2 KNOW

The exponents of KNOW in the three languages investigated here are YA'RIF in MS Arabic, BYI'REF in Jish Arabic, and LADA'AT~LEHAKIR in Hebrew. Similar to THINK, these exponents can take a personal subject. They can also take a psychological complement which can be clausal, as in example (5.1), or phrasal, as in (5.2). Moreover, they can take a complement with an additional argument, as shown in example (5.3). Thus, they satisfy the following combinatorial frames:

- (5) 1. someone knows that—
2. someone knows someone else/something (well).
3. someone knows something about someone else/something.

3.2.1 MS Arabic YA'RiF

There are two candidates for KNOW in MS Arabic, i.e. ya'rif and ya'lam. Ya'lam can be used in all the combinatorial frames except when referring to knowledge about someone. Ya'ref, on the other hand, satisfies all the combinatorial frames, and therefore, it will be regarded as the exponent of KNOW.

- (6) 1. aḥadun ya'rifu anna—
2. aḥadun ya'rifu aḥadan ākhar/shay'an (jayyidan).
3. aḥadun ya'rifu shay'an 'an aḥadin ākhar/shay'in.

3.2.2 Jish Arabic BYI'REF

Identifying the exponent of KNOW in Jish Arabic is unproblematic. KNOW is realized as BYI'REF. The combinatorial frames (7.1) – (7.3) mentioned above are realized in Jish Arabic as:

- (7) 1. ḥadā byi'ref innu—
 2. ḥadā byi'ref ḥadā tānī/ishī (mniḥ).
 3. ḥadā byi'ref ishī 'an ḥadā tānī/ishī.

3.2.3 Hebrew LADA'AT~LEHAKIR

The range of the semantic prime KNOW is covered in Hebrew by two words, viz. LADA'AT and LEHAKIR. LADA'AT is used in propositional clauses (e.g. 'I know something' or 'I know that...') while LEHAKIR is employed in non-propositional ones (e.g. 'I know someone/a place'). Note that the sentence 'I know English' is translated into Hebrew using the verb LADA'AT, whereas the sentence 'I know the circumstances' is translated into Hebrew using the verb LEHAKIR⁴. This is because the first sentence is propositional, while the second is not. As Wierzbicka (2002, p. 94) notes, the sentence 'I know the circumstances' can be paraphrased as 'I know what the circumstances were / I can say: 'it happened like this'.'

The distinction between LADA'AT and LEHAKIR is reminiscent of Polish, French, Spanish, Portuguese, and Italian, each of which has two verbs for KNOW used in a similar way to those in Hebrew (Peeters et al., 2006a; Wierzbicka, 2002). In combinatorial frames, the valencies of LADA'AT/LEHAKIR can be represented as follows:

- (8) 1. mishehu yodeya she—
 2. (a) mishehu yodeya mashehu (tov).
 (b) mishehu makir mishehu akher (tov).
 3. mishehu yodeya mashehu al mishehu akher/mashehu.

3.3 WANT and DON'T WANT

The exponents of WANT and DON'T WANT in the three languages investigated here are straightforward and unproblematic. They are realized as YURĪD/ LĀ YURĪD in MS Arabic, BIDDU/ BIDDOSH in Jish Arabic, and LIRTSOT/ LO LIRTSOT in Hebrew. Like their English counterpart, the MS Arabic and Hebrew exponents are verbs. The status of the Jish Arabic exponent, on the other hand, is not clear. To talk about the present, this exponent takes the pronominal suffixes that are attached to nouns to indicate possession. To talk about the past, it requires these suffixes and the auxiliary verb *bikūn* 'be.' Likewise, to talk about the future, it requires these suffixes and the auxiliary verb *bišr* 'become.'

The exponents of WANT and DON'T WANT in the three languages investigated can be predicates of psychological subjects. They can also occur with substantive, equi-clausal, and non equi-clausal complements, as in examples (9.1) – (9.3) respectively. In Hebrew, non equi-clausal complements can be headed by the that-complementizer *she-*. In MS Arabic, on the other hand, non-equi-clausal complements behave like their English counterparts in that they do not require a that-complementizer, but rather a verb in the infinitive. In Jish Arabic, this kind of complement can behave like its Hebrew or MS Arabic counterparts without any difference in meaning. Furthermore, the exponents of WANT can take a complement and an additional argument, as in (9.4). This being so, they satisfy all the following combinatorial frames: The near

- (9) 1. someone wants/ doesn't want something.
 2. someone wants/ doesn't want to do something.
 3. someone wants/ doesn't want someone else to do something.
 4. someone wants/ doesn't want something to happen (as this someone wants).

equivalents of these four combinatorial frames in Arabic and Hebrew are rendered below. Example (10) illustrates the use of MS Arabic YURĪD, example (11) illustrates the use of Jish Arabic BIDDU, and example (12) illustrates the use of Hebrew LIRTSOT:

⁴In fact, a Google search shows that using LADA'AT to translate the sentence 'I know the circumstances' is also possible, albeit a little less frequent.

- (10) 1. aḥadun (lā) yurīdu shay'an.
 2. aḥadun (lā)y urīdu an yaf'ala shay'an.
 3. (lā) yurīdu aḥadun an yaf'ala aḥadun ākhar shay'an.
 4. (lā) yurīdu aḥadun an yaḥdutha shay'un (mithlamā yurīdu hādhā l'aḥadu).
- (11) 1. ḥadā biddu/ biddosh ishī.
 2. ḥadā biddu/ biddosh yi'mel ishī.
 3. ḥadā biddu/ biddosh innu ḥadā tānī yi'mel ishī.
 4. ḥadā biddu/ biddosh innu ishī ysīr (mitlmā biddu hādā lḥadā).
- (12) 1. mishehu (lo) rotse mashehu.
 2. mishehu (lo) rotse la'asot mashehu.
 3. mishehu(lo) rotse shemishehu akher ya'ase mashehu.
 4. mishehu (lo) rotse shemashehu yikre (kmo shihamishehu haze rotse).

3.4 FEEL

FEEL has the following exponents in the three languages investigated in this paper: YASH'UR~YUḤISS in MS Arabic, BIḤESS in Jish Arabic, LEHARGISH~LAKHUSH in Hebrew. Akin to FEEL, they can be used with emotion terms (sad, angry, etc.), sensation terms (hungry, thirsty, etc.), and related words (e.g. hot, cold, and smooth) (cf. Goddard and Wierzbicka, 2002), and they satisfy the following combinatorial frames:

- (13) 1. someone feels something.
 2. someone feels something good/bad.
 3. someone feels something in one part of the body.
 4. someone feels like this.

3.4.1 MS Arabic YASH'UR~YUḤISS

There are two candidates for FEEL in MS Arabic, i.e. *yash'ur* and *yuḥiss*. Both of these words satisfy all the combinatorial frames, and one does not seem to be paraphrasable via the other. Hence, I propose both of them as allomorphs of the same exponent.

- (14) 1. aḥadun yash'uru/ yuḥissu bishay'in.
 2. aḥadun yash'uru/ yuḥissu bishay'in jayyidin/sayyi'in.
 3. aḥadun yash'uru/ yuḥissu bishay'in fī juz'in wāḥidin min aljismi.
 4. aḥadun yash'uru/ yuḥissu hākadhā.

3.4.2 Jish Arabic BIḤESS

Similar to MS Arabic, Jish Arabic also has two candidates for FEEL, namely *biḥess* and *byush'ur*. Whereas the former can be used to talk about physical and non-physical conditions, the latter is restricted to physical conditions only, and more specifically to the health condition of a person. Thus, the sentence *shā'ir mnīḥ* means 'I feel well.' On the other hand, *hāses mnīḥ* can mean 'I feel well' or 'I feel good.' Also, *biḥess* is much more frequent than *byush'ur*, and therefore, it is to be regarded as the exponent of the semantic prime FEEL.

- (15) 1. ḥadā biḥess b'ishī.
 2. ḥadā biḥess b'ishī mnīḥ/mish mnīḥ.
 3. ḥadā biḥess b'ishī bjuzi' wāḥad mini ljisim.
 4. ḥadā biḥess hēk.

3.4.3 Hebrew LEHARGISH~LAKHUSH

Hebrew has three candidates for the semantic prime FEEL, viz. *lehargish*, *lakhush*, and *lemashesh*. *Lemashesh* means 'to physically feel something'; it cannot, therefore, be used to describe non-physical feelings. In respect of *lehargish* and

lakhush, they both satisfy all the combinatorial frames, and I cannot find any paraphrasable semantic difference between them. Consequently, I would regard both of them as allolexes of the same exponent⁵.

It is worth mentioning that, at first glance, one might be tempted to think that only lehargish is the exponent of the semantic prime FEEL because it is derived from the root $\sqrt{\text{rgsh}}$, from which the noun regesh ‘feeling’ is also derived, whereas lakhush is derived from the root $\sqrt{\text{nksh}}$, from which the noun khush ‘sense’ is derived. However, one would dismiss such an analysis because the word tkhusha ‘feeling’ is also derived from the root $\sqrt{\text{nksh}}$.

- (16)
1. mishehu margish/khash mashehu.
 2. mishehu margish/khash mashehu tov/ra.
 3. mishehu margish/khash mashehu bekhelek ekhad mehaguf.
 4. mishehu margish/khash kakha.

3.5 SEE and HEAR

Identifying the exponents of SEE and HEAR in the three languages investigated here is unproblematic. They are realized, respectively, as YARĀ and YASMA‘ in MS Arabic, BISHŪF and BYISMA‘ in Jish Arabic, and LIR‘OT and LISHMOWA in Hebrew.

Both SEE and HEAR have a valence of two, viz. experiencer and stimulus, such as in ‘I saw/heard something.’ Yet, whereas SEE can take words that refer to both human and non-human entities as an object, HEAR’s object can only be a word referring to non-human entities. SEE, but not HEAR, can have a valence of three, namely, experiencer, stimulus, and location, such as in ‘I saw something in one place.’ Furthermore, it has been suggested that both SEE and HEAR can take a clausal complement whose subject is co-referential with the object of the main clause, such as in ‘I heard this someone saying something’ (Bughenhagen, 2002; Chappell, 2002; Enfield, 2002). This structure can be rendered in Arabic and Hebrew without any problem, but whether it is canonical or not needs further investigation.

Another structure that has been proposed as canonical is the structure in which SEE and HEAR are followed by a that-complementizer, such as in ‘I heard that something happened’ (Enfield, 2002). Although this structure is grammatical and idiomatic in English, Arabic, Hebrew, and possibly other languages, it has been argued that it is complex and language-specific; for that reason, it is not regarded as a combinatorial frame (Amberber, 2008).

Thus, the only combinatorial frames for these two primes are: The near equivalents of these contexts in Arabic and Hebrew

- (17)
- | | |
|------|--|
| SEE | 1. someone sees someone else/something (in a place). |
| HEAR | 2. someone hears something. |

are presented below. Example (18) illustrates the use of MS Arabic YARĀ and YASMA‘, example (19) illustrates the use of Jish Arabic BISHŪF and BYISMA‘, and example (20) illustrates the use of Hebrew LIR‘OT and LISHMOWA. Like

- (18)
1. aḥadun yarā aḥadan ākhar/shay’an (fī makānin mā).
 2. aḥadun yasma‘u shay’an.
- (19)
1. ḥadā bishūf ḥadā tānī /ishī (bshī maḥall).
 2. ḥadā byisma‘ ishī.
- (20)
1. mishehu ro‘e mishehu akher/mashehu (bemakom ma).
 2. mishehu shomeya mashehu.

English and many other languages, MS Arabic, Jish Arabic, and Hebrew make a distinction between the volitional activity of ‘looking at someone/something’ and the ability of ‘seeing someone/something.’ MS Arabic and Hebrew also make a distinction between the volitional activity of ‘listening to someone/something’ and the ability of ‘hearing.’ *Look at* and *listen to* are not semantic primes, however, as they can be explicated via SEE and HEAR, respectively. The near equivalents of these two verbs in the three languages investigated here are presented in Table 2 below.

⁵In HebrewCorpus, *lehargish* (and its derivatives) appears 17,758 times whereas *lakhush* occurs 8,990. The former is obviously more frequent than the latter. However, the frequency of *lehargish* is not more than two times greater than that of *lakhush*; it is only 1.9 times greater. Therefore, I would not dismiss *lakhush* as the exponent of FEEL on the basis of its frequency.

Table 2. Arabic and Hebrew	near equivalents	of English	look at and listen to
	Look at	Listen to	
MS Arabic	yanzur	yuṣghī	
Jish Arabic	byittalla‘	—	
Hebrew	lihistikel	lehakshīv	

3.6 SAY

MS Arabic and Jish Arabic each has one exponent of the semantic prime SAY, and they are realized as YAQŪL and BI’ŪL, respectively. Hebrew, on the other hand, has two exponents, viz. LOMAR and LEHAGID. The choice between these two Hebrew verbs is determined by the tense of the verb. LOMAR is used in the past and present tenses whereas LEHAGID is used in the future. LEHAGID is also used in the imperative and infinitive. As Myhill (2001) notes, however, style (formal or informal) can play a role in the choice of the two verbs. In writing, both verbs can be used in any tense and mood. In spoken Hebrew, the use of LEHAGID in the past tense and the use of LOMAR in the future tense are almost non-existent. This being so, like Myhill, I propose LOMAR and LEHAGID as allomorphs of the same exponent.

The Arabic and Hebrew exponents of SAY can appear with a substantive complement, as in (21.1), or a complement expressing direct discourse, as in (21.2). They also have optional syntactic slots for a locutionary topic, addressee, or instrument, as shown in examples (21.3)–(21.5), respectively. In addition, they can take as their complement a noun phrase whose head is the semantic prime WORDS, as exemplified by (21.6). Hence, they satisfy the following combinatorial frames:

- (21)
1. someone said something.
 2. someone said: “—”
 3. someone said something about someone else/something.
 4. someone said something to someone.
 5. someone said something with some words.
 6. someone said some words.

The Arabic and Hebrew near equivalents of these contexts are presented below. Example (22) illustrates the use of MS Arabic YAQŪL, example (23) illustrates the use of Jish Arabic BI’ŪL, and example (24) illustrates the use of Hebrew LOMAR/LEHAGID.

- (22)
1. aḥadun qāla shay’an.
 2. aḥadun qāla: “—”
 3. aḥadun qāla shay’an ‘an aḥadin ākhar/shay’in.
 4. aḥadun qāla shay’an li’aḥadin ākhar.
 5. aḥadun qāla shay’an biba‘ḍi lkalimāt.
 6. aḥadun qāla ba‘ḍa lkalimāt.
- (23)
1. ḥadā āl ishī.
 2. ḥadā āl: “—”
 3. ḥadā āl ishī ‘an ḥadā tānī/ishī.
 4. ḥadā āl ishī laḥadā tānī.
 5. ḥadā āl ishī bi’iddet kalimāt.
 6. ḥadā āl ‘iddet kalimāt.
- (24)
1. mishehu amar mashehu.
 2. mishehu amar: “—”
 3. mishehu amar mashehu al mishehu akher/mashehu.
 4. mishehu amar mashehu lemishehu akher.
 5. mishehu amar mashehu bekhama milim.
 6. mishehu amar kama milim.

3.7 WORDS and TRUE

The semantic prime WORDS does not raise any problem in either Arabic or Hebrew. It is lexicalized as KALIMĀT in MS Arabic as well as in Jish Arabic and as MILIM in Hebrew.

Regarding TRUE, there are two candidates for it in each of the three languages investigated here. In MS Arabic, the two candidates are *ṣaḥīḥ* and *ḥaqīqī*. In Hebrew, they are *nachon* and *amiti*. The latter of each pair, i.e. *ḥaqīqī* and *amiti*, can be thought of as the translational equivalents of the English word real. Therefore, they do not satisfy a combinatorial frame, such as ‘someone said something; this thing was true.’ As for Jish Arabic, the two candidates are *mazbūṭ* and *ṣaḥīḥ*. While both can be used in any combinatorial frame, the latter is much less frequent than the former. This being so, MS Arabic ṢAḤĪḤ, Jish Arabic MAZBŪṬ, and Hebrew NAKHON are the exponents of the semantic prime TRUE.

Examples (25) – (27) illustrate the use of MS Arabic KALIMĀT, Jish Arabic KALIMĀT, and Hebrew MILIM, respectively:

(25)	aḥad-u-n someone-NOM-INDF ‘Someone said some	qāla say(PFV.3SG) words.’	ba‘ḍ-a some-ACC	al-kalimāt-i. DEF-words-GEN
(26)	ḥadā someone ‘Someone said some	āl say(PFV.3SG) words.’	‘iddet some	kalimāt. words
(27)	mishehu someone ‘someone said some	amar say(PFV.3SG) words.’	kama some	milim. words

Examples [28]-[30] illustrate the use of MS Arabic ṢAḤĪḤ, Jish Arabic MAZBŪṬ, and Hebrew NAKHON, respectively:

(28)	hādḥā this(SG.M) ‘This is true.’	ṣaḥīḥ-u-n. true-NOM-INDF
(29)	hādā this(SG.M) ‘This is true.’	mazbūt. true
(30)	ze this(SG.M) ‘This is true.’	nakhon. true

4 Discussion and concluding remarks

In this paper, I have identified the exponents of ten semantic primes in three Semitic languages. In so doing, this paper lends more support to the claim that the target semantic primes are universal. The table overleaf summarizes the results.

In addition to identifying the exponents of the ten semantic primes, the combinability of these exponents in the three languages has been investigated. It has been demonstrated that the canonical sentences (i.e., those simple, universal constructions) of the ten semantic primes can be expressed without a problem in MS Arabic, Jish Arabic, and Hebrew. This, in turn, lends more support to the hypothesis that these constructions are universal.

The reader might wonder about the benefit of writing a paper while (so the argument can go) it could have been sufficient to look up the counterparts of the ten target concepts in English-Arabic and English-Hebrew dictionaries. I would argue that, relying solely on dictionaries to identify the exponents of semantic primes can yield inaccurate results. Consider the semantic prime FEEL. If there were an English-Jish Arabic dictionary, looking up English *feel* would yield two words, *biḥess* and *byush‘ur*. Someone who is not trained in NSM may render both as allomorphs of the same prime, although this is not the case. As has been argued in Subsection 3.4.2., only the former is the semantic prime. Wierzbicka (1994, p. 445) remarks that “[h]unting for semantic and lexical universals is not like pearl-fishing. Primitives do not present themselves as glittering and unmistakable. Identifying them is an empirical endeavour.”

Table 3. The MS Arabic, Jish Arabic, and Hebrew exponents of mental predicates and speech concepts

	MS Arabic	Jish Arabic	Hebrew
THINK	YUFAKKIR	BIFAKKER	LAKHASHOV
KNOW	YA'RIF	BYI'REF	LADA'AT~LEHAKIR
WANT	YURĪD	BIDDU	LIRTSOT
DON'T WANT	LĀ YURĪD	BIDDOSH	LO LIRTSOT
FEEL	YASH'UR~YUḤISS	BIḤESS	LEHARGISH~LAKHUSH
SEE	YARĀ	BISHŪF	LIR'OT
HEAR	YASMA'	BYISMA'	LISHMOWA
SAY	YAQŪL	BI'ŪL	LOMAR~LEHAGID
WORDS	KALIMĀT	KALIMĀT	MILIM
TRUE	ŠAḤĪḤ	MAZBŪṬ	NAKHON

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