Etymology and Polysemy: A Non-Objectivist Approach to the Domain of Vision in the Semitic Languages

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Abstract

This article is an exemplary study of semantic change of polysemous words in Arabic and Semitic languages. Since words do not change their meanings by mere coincidence or acquire new ones randomly, the study of the historical evidence of groupings according to related senses can show how multiple functions of a word are related to each other and which role cognitive structuring plays in the acquisition of new senses. To show that mental categories can explain the relations of the different usages of a single word I am adopting a cognitive approach. Metaphorical change within polysemous words in the domain of vision will serve as a case in point. Following SWEETSER (1990), I will look into the historical evidence of vision-related verbs in Arabic and their equivalents in the Semitic languages.

Key words: Etymology, lexical semantic change, polysemy, cognitive linguistics, visual metaphor

In this study I will use a cognitive approach to meaning and show that it can account for facts in lexical semantic change. Cognitive linguistics has shown that the conceptual systems that humans develop from everyday human experience is the basis (alongside cultural concepts) for natural-language semantics (JOHNSON 1987, LAKOFF 1987, LAKOFF & JOHNSON 1980). If conceptual systems, i.e., our imagination and the categories within it, is the basis of semantics, it should also be accountable for lexical semantic development and change.

The cognitive framework of prototypicality developed by Eleanor ROSCH claims that there are prototypical instances of a category that appear to be more prominent. She proposes two general principles for the formation of cognitive categories that are the conceptual systems within our imagination. The first principle concerns the function of category systems. The task of a category system is to provide “maximum information with the least cognitive effort”.¹ The second principle is about the structure of information. Human beings perceive the world as structured information. We do not perceive the world as chaotic and unrelated information, we structure it. The structures we use determine our language. It should be pointed out that the world we are talking about is the one we as human beings

¹ ROSCH 1978: 28.

perceive. "World" does not refer to an unknown, objective and unperceivable metaphysical world. So, a human being's perception is determined by the functional needs of his/her very human interaction with the physical and social environment.² A large part of language and language use is of course culturally determined.³ Given that I want to examine only those polysemous words that denote visual perception and their metaphorical extension to other meanings, I can restrict this study to cognitive linguistics.

These general principles of categorization have significance for the level of abstraction of the categories formed and their internal structure. We can imagine those categories as having a vertical and a horizontal dimension. In the development of thought, the sensory-motor interaction with the world plays an important role. So, the ways in which humans use or interact with the objects in the world are inseparable from what is perceived.⁴ Categorization then is a composition of perception, motor movements, functions, and iconic images.⁵ When the semantics of a word change, a historically acquired new function is either replacing old functions or augmenting them. The questions I want to answer are: What is the relationship between an acquired new meaning and the old one and, in the case of polysemy, is there a regularity determining the distribution of meanings that coexist in a single root across the Semitic languages at a given time and, if so, how can it be explained? It is an attempt to explain the semantic diversity / groups and sub-groups observed in words denoting vision across Semitic. The study will show that the structure of polysemy is depending on the categorization of human cognition, i.e., humans assemble meanings in one word or root not only in terms of shared features, that is analogy, but also according to cognitive structures, such as metonymy and metaphor. It will be shown that there are coherent concepts underlying, for instance, the polysemous expressions for physical and mental vision. In cognitive linguistics such expressions are called conceptual metaphors.

Like metaphors, metonymic concepts are grounded in our experience. In fact, the grounding of metonymic concepts is in general more obvious than is the case with metaphoric concepts, since it usually involves direct physical or causal associations. The PART FOR WHOLE metonymy, for example, emerges from our experience with the way parts in general are related to wholes.⁶

Strategies available to us to comprehend the world are analogous transfer or metonymic and metaphoric extension of a meaning. The difference between the traditional sense of metaphoric extension and the *conceptual* metaphoric extension of a *category* is that the latter is the reason for the former and also explains why analogy and metonymy work at all.

² ROSCH 1978: 29.

³ For further elaboration on the difference between physical interaction with the world on the one hand and cultural influences on the other hand, cf. Palmer's essay on "When does cognitive linguistics become cultural?" (PALMER 2006).

⁴ BRUNER 1964: 14.

⁵ JOHNSON 1987.

⁶ LAKOFF & JOHNSON 1980:39f.

Metaphor. I am speaking, of course, of the need for a more satisfactory theory that recognizes metaphor as one of the central projective operations by which we establish semantic connections. Traditional semantic theories treat metaphor only as a deviant or derivative function on literal meaning. On the contrary, we have seen that some kinds of metaphor must be regarded as irreducible, primary cognitive functions by which we create and extend structure in our experience and understanding.⁷

A statement such as “The theory started to fall apart” can serve as a good example to illustrate the difference between the ‘traditional’ metaphor and the conceptual metaphor. *Falling apart* in combination with a word referring to something mental and not physical is a traditional metaphor and everyone will understand the meaning of this statement. But the conceptual metaphor underlying the word *theory* is ORGANIZATION IS PHYSICAL STRUCTURE.⁸ It is the way *theory* is being understood, its mental categorization, that allows us to use the verb *to fall apart* together with the noun *theory*, and explains why the combination is not felt to be meaningless.

For example, the Arabic verb طَلَّ means basically *to bedew sth. delicately*. But in form IV the verb reveals the meaning *to look down, overview; to control*, and more. The thought category that is operative here and makes the polysemy possible is a vertical motion with the metaphor BEING UP ACTING DOWNWARDS. This category is a composition of the perception of BEING UP and the DOWNWARD motion. The function of this word is multiple. It can refer to light rain or serve as an iconic image of looking down, hence having an overview, which may imply controlling. SANMARTÍN (1974) and MOSCATI (1946) seem to have recognized the relationship of physical vision and mental controlling in the case of ?-m-r⁹ (which I will further elaborate on below), but not to the extension of applying any cognitive concepts to the observation.

With JOHNSON (1987) and SWEETSER (1990) I claim that neither diachronic nor synchronic developments of meaning can be appropriately explained within an objectivist semantic theory. *Objectivism* is a term introduced by JOHNSON to refer to the philosophical tradition that excludes imagination from reality and assumes an objective “God’s-Eye-View”. The world is understood as consisting

of objects that have properties and stand in various relationships independent of human understanding.¹⁰

Since linguistic forms and functions are reflexions of human cognitive structures and conceptual organisation, their detailed description should provide us with an adequate method to understand a given language. In contrast, traditional truth-conditional semantics associated with Donald DAVIDSON focuses on sentential meaning and only analyses logical relations, neglecting the question why a word can have different meanings. To traditional truth-conditional semantics, polysemy is problematic. The relatedness of the meanings cannot be

⁷ JOHNSON 1987: 192.

⁸ GIBBS 2015: 172.

⁹ See SANMARTÍN 1974.

¹⁰ JOHNSON 1987: x.

analysed in terms of their components because this method fails to specify the number and kind of the components two senses must share to meet a mutual condition. In the SAUSSUREian tradition, structural linguistic analysis is done from an “arbitrariness of the sign” point of view, converging with logical semantics in the FREGEian tradition, hence polysemous uses of the same sign and the relationship among the multiple meanings are presumed to be irrelevant. While SAUSSURE himself never neglected polysemy, using the “arbitrariness of the sign” as an argument, it seems objectivists did so combining arbitrariness with FREGEian rationality. For the purposes of formal language, the objectivist approach is of great value. But for a proper understanding of natural language, mental categories have to be included. An examination of polysemous developments cross-linguistically can reveal such categories. We can find here meanings that regularly appear together, forming a group. And even diachronically we can observe that some meanings frequently represent the basis of later developments—a phenomenon that can be observed also in the Semitic languages, as I will show below. The fact that there are words that assume new functions due to an extension of the mental images originally connected to them, as, e.g., words of visual perception whose meaning is extended to the domain of mental activity, is, of course, not specific to Semitic, but can count as a typical human phenomenon.

Pointing out the existence of a relationship among the multiple uses of the same sign, it was probably nevertheless necessary to establish the “arbitrariness of the sign”, in order to give linguists dispensation from the duty of having to find an onomatopoeic root for every word. Of course, SAUSSURE's approach in *Course in General Linguistics* (1916) is right; but since polysemous signs do not have shared objective truth-conditions, no theory should just eliminate cognitive organization from the linguistic system either. To a philosopher concerned with an objective world and an abstract truth, human cognitive organisation may seem irrelevant. But natural language is neither something objective nor is it abstract. Therefore, as long as “world” means its perception by humans, natural language should be described via an analysis of cognitive organization, not only as a system of word-to-world signs.

For example, in أنا أرى شجراً *I see trees*, it is arbitrary that رأى refers to vision in Arabic (although some linguists of the Arab language might disagree with SAUSSURE). However, it is not arbitrary at all that verbal derivatives of رأى also can mean ‘to think, consider’, as in ترى ماذا نفعل؟ *What do you think we should do?* Intuitively, we are certain that, to express the notion of thinking, رأى is a better choice than, say, جلس or شرب; so it is not simply a random choice; obviously, the word's basic meaning, *to see*, is somehow ‘appropriate’ to be extended and give the meaning of *thinking* and *considering*. The reason why رأى can mean *to see* and *to consider* is our conceptual organization. It seems to be a widespread, if not universal phenomenon that vision and thinking are related. Sweetser (1990) proofs this to be true at least in the case of Indo-European languages. In the present study I will argue that her findings can be extended not only to Arabic, but also to other Semitic languages.

There may be many reasons to analyse language as being separate from human cognition. However, both philosophical reasons and the fact that language can answer many other purposes suggest that only a theory of semantics that takes conceptual organization into account can explain why words for vision are also used to express processes happening in the mind, and more. The purpose of the study at hand is to provide evidence that corroborates this idea. One reason why linguists might be reluctant to include imagination, i.e.,

human cognitive activity, in their concept of rationality is their understanding of imagination in Platonic terms, that is, as an imagination that

is taken to be too tied to the body; it is held to be too particular, concrete, subjective, and idiosyncratic to achieve the status of objective rationality.¹¹

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It is such a concept that made FREGE state that two people could not share the same imaginative representation. Moreover, imagination is also often understood in a Romantic way, where it is

taken to be too unconstrained, arbitrary, and fanciful to achieve the status of objective, rule-governed, rationality.¹²

Another reason might be the problem of the Sapir-Whorf hypothesis.¹³ SAPIR's *Language* (1921) and WHORF's essay "The relation of habitual thought and behaviour to language" (1941) suggest that the relation between language and thought is bidirectional, an idea that today seems to be a rather naïve approach to linguistics and leaves the same impact on cognitive linguistics. Objectivists seem to mistake metaphorical use for literal use. In contrast, a forceful argument for the inclusion of imagination is made by Hilary PUTNAM (1981) and George LAKOFF (1987). PUTNAM tries to break the long-lasting dichotomy between objective and subjective truth and reason by rejecting a metaphysical realism. Analysing the history of philosophy, he argues systematically for "putting the body back into the mind"¹⁴ by explaining that "the mind and the world *jointly* make up the mind and the world"¹⁵ and thus giving a new account of realism and objectivism. LAKOFF, on the other hand, is led to the cognitive model by a survey of empirical studies of the nature of human categorization. Today, research in metaphor is multi-disciplinary, dominated by cognitive linguistic approaches. In spite of the theory multi-disciplinary nature of the topic, metaphor theory has evoked controversy regarding its methods, data, and theoretical conclusions about language, minds, and bodies.¹⁶

This being said, words do not change their meanings by mere chance or acquire new ones at random. A study of the historical evidence for groupings of lexical items in related senses can enable us to find out how multiple functions of a word are related to each other historically and which role cognitive structuring plays in acquiring new senses.¹⁷ Lexical semantic change obeys to certain rules, or principles.¹⁸ Given that I am applying a cognitive approach, the focus in the following will be on metaphorical change, in line with SWEETSER (1990), who demonstrated that there are historical semantic changes in Indo-European languages that can only be explained as the result of metaphorical projections of

11 JOHNSON 1987: 194.

12 JOHNSON 1987: 194 f.

13 SWEETSER 1990: 6.

14 JOHNSON 1987: XXXVI.

15 PUTNAM 1981: XI (my emphasis, G.I.).

16 GIBBS 2015: 168.

17 SWEETSER 1990: 23 ff.

18 KELLER 2003.

human conceptual systems which are designed by bodily experiences in the world. Accordingly, I will look into the historical evidence of vision-related verbs in Arabic and their equivalents in the Semitic languages.

In polysemy, a word has several systematically related meanings, as in the case of “to see”, which can mean both to “to look” (*I see a dog*) and “to understand” (*I see, what you mean*). Studies show that polysemy involves the metaphorical extension of a main sense to other senses directed by human cognitive organisation—or image-schematic structures, i.e., imagination.

Polysemy. The key to understanding polysemy is to see that we are not dealing merely with multiple meanings for a single word but rather with multiple *related* meanings. On the hypothesis of image-schematic structures that can be metaphorically and metonymically extended, we can explain these relations in a manner not available to standard views. We are not left with the inexplicable fact of multiple meanings, as Objectivism alleges; instead, we have a basis for explaining the connections among the related senses.¹⁹

An examination of the data I have assembled in the following two tables will allow the reader to observe that, and how, vision verbs commonly develop senses of abstract mental activities. The domain of vision is a main source for expressing abilities of mental focusing not only in Indo-European but also in the Semitic languages.

Table 1 n-w-r / ʔ-m-r

ARABIC	
√ n-w-r	√ ʔ-m-r
<p>verb: نور <i>nawar</i> I ‘to shine, gleam; to see fire in the distance; to brand an animal; to be frightened and flee’; II ‘to blossom (tree); to light (dawn, lamp); to illuminate; to enlighten (god); to brand mark; to tattoo (the arm) with a needle greenish’; III ‘to revile sb.’; IV ‘to shine, gleam, see fire in the distance, be illuminated, receive enlightenment from God; to rub in the depilatory <i>nūra-tun</i>’; VIII ‘to rub in for depilation’; X ‘to ask for light or fire; to search for light, enlightenment; to be illuminated; to defeat’</p> <p>noun: نَور <i>nawr</i> ‘tree blossom, blossom (esp. white)’ نُور <i>nūr</i> ‘light, ray of light, glance; enlightenment, truth; gleaming substance; dual sun and moon, eyes’ نُورًا <i>nūrā</i> ‘depilatory’ نُورَة <i>nawra</i> ‘blossom’; ‘burning mark’; ‘pitch to coat the camels against scabies’; ‘sth. to rub into the skin for depilation (undissolved lime and arsenic) or for tattooing’; ‘lime’</p>	<p>verb: امر <i>amar</i> I ‘to order sb. sth.’; II ‘to be(come) a leader’; III ‘to be available in abundance’; IV ‘to have many cattle’; V ‘to be hard, difficult’; V ‘to ask for advice’</p> <p>noun: امر <i>amr</i> ‘order, edict, imperative, power, reign; pl. ‘business, affair’; <i>amar</i> ‘individual’; <i>āmīr</i> ‘so. reigning; God; Muhammad; Muharram’; <i>immar</i> ‘sheep’ أَمْرَة <i>amāra</i> ‘sign, feature’</p>

19 JOHNSON 1987: 193.

AKKADIAN	
√ n-w/m/b-r	√ ?-m-r
<p>verb: <i>nawāru(m)</i>, <i>namāru</i>, <i>nabir</i> ‘to be(come) bright, shine’; G <i>ina namāri</i> ‘at dawn’; of parts of the liver ‘be light’; of eyes ‘shine (with joy)’, of face, hear, mind ‘be(come) cheerful, glad; OB ‘celebrate (festival)’; of confused sign ‘become clear’; of employee ‘be excellent’; D ‘make bright’, of deities ‘illuminate’ lands, city; ‘lighten’ darkness; NB ‘uncover, expose’ foundations; jB ‘ignite’ brazier; transf. ‘make so. glad, cheerful’; ‘clarify’ confusion; Mari ‘enlighten’ so.</p> <p>noun: <i>navir(a)tu</i>, <i>namir(a)tu</i> ‘brightness, light’ <i>namrūtu</i> ‘mother-of-pearl’ <i>namāru</i> ‘clearing, path’ <i>nīru</i>, <i>nimru(m)</i>, <i>nīw(a)rum</i>, <i>nūru(m)</i> ‘light’ <i>nimurtu</i> (in <i>epšēt(i) nimurti</i>) ‘friendly doing(s), festive activities’? <i>namārītu</i>, <i>namirātu</i> ‘daybreak, third watch of the night’ <i>numūru</i> ‘torch’ <i>numru</i> ‘brightness’ <i>namurratu(m)</i>, <i>namrūrum</i>, <i>namrīrru</i> ‘awe-inspiringly radiance’ <i>nannartu</i> ‘light of the sky, luminary’ <i>nannāru(m)</i> ‘light of the sky; moon’ <i>nuwwurum</i> ‘brilliance’ <i>mušanmirtu</i> ‘lamp’</p>	<p>verb: <i>amāru(m)</i> ‘to see’; ‘to see, catch sight of’; ‘to find’; ‘to locate, discover, trace (out)’; ‘establish (the results of a calculation)’; act. stat. ‘recognizes; comes to know’; ‘is devoted to’, ‘is keen on’</p> <p>noun: <i>amertu(m)</i>, <i>ime/firtu(m)</i>, <i>iwirtum</i> ‘view, opinion’ <i>imirtu</i> ‘sight, view’ <i>imru</i> ‘observation’ <i>namāru(m)</i> ‘mirror; watch-tower’ <i>nāmartu</i> ‘appearance’ <i>immeru(m)</i> ‘sheep’</p>
UGARITIC	
√ n-y/0-r	√ ?-m-r
<p>noun: <i>nyr</i> ‘luminary’ <i>nyr šmm</i> ‘The Luminary of the skies’, epithet of the ‘Moon’ god <i>tgh nyr rbt</i> the absence of ‘the Great Luminary’, epithet of the ‘Sun’ goddess</p> <p>verb: <i>nr</i> G ‘to shine’; L ‘to burn’</p> <p>noun: <i>nr</i> ‘sheen, gleam’; meton. > ‘lamp’ <i>nrt</i> ‘lantern, lamp’ <i>nmrt</i> ‘splendour’ <i>mnrt</i> ‘candelabrum’</p>	<p>verb: <i>’mr</i> ‘to be seen, appear’; ‘to take sight of, look at’</p> <p>noun: <i>’amr</i> ‘order, demand’; ‘word (?)’ <i>’imr</i> ‘lamb’</p>
PHOENICIAN	
√ n-r	√ ?-m-r
<p>noun: <i>nr</i> ‘lamp, candelabrum’ PN <i>mnr</i> ? <i>menīr</i> (‘Enlightener’)</p>	<p>verb: <i>’mr</i> ‘to say’; ‘to say to one’s self, think, contemplate’</p> <p>noun: <i>’mr</i> ‘word of a language’; ‘word, message, communication’</p>

BIBLICAL HEBREW	
√ n-w-r	√ ʔ-m-r
noun: נֵר <i>ner</i> 'lamp, light' מְנֹרָה <i>mənōrāh</i> 'candlestick, lampstand'	verb: אָמַר <i>āmar</i> 'to speak, say'; 'to give sb. An honorable mention'; 'to wish sth. for sb.'; 'to name'; 'to promise'; 'to say to os., think, contemplate, brood'; 'to intend, purpose sth.' אָמַר <i>mr</i> 'to be high, tall' הִתְאָמַר 'to rise, draw os. up proudly' noun: אָמַר <i>omær</i> 'saying, word, directive'; 'thing, something'
BABYLONIAN ARAMAIC	
√ n-w-r	√ ʔ-m-r
noun: נִרְאָ <i>nūrā</i> 'fire' מְנֹרְתָא <i>mənārtā</i>	verb: אָמַר <i>mr</i> 'to say, recite, tell' noun: מְדַבֵּר <i>āmōrā</i> 'speaker, Amora' אִמְרָא <i>immarā</i> 'lamb' אִמְרָא <i>ymra</i> 'bandage' אִמְרָא <i>ymra</i> 'saying'
PALESTINIAN ARAMAIC	
√ n-w-r	√ ʔ-m-r
noun: נִיר <i>nūr</i> 'fire' מְנֹרָה <i>mənārāh</i> 'lampstand, candelabrum'	verb: אָמַר <i>mr</i> 'to say, state, recite' noun: אִמְרָא <i>immar</i> 'lamb' אִמְרָא <i>ymr</i> 'speech, utterance'
SYRIAC ARAMAIC	
√ n-w-r	√ ʔ-m-r
verb: نَار <i>nayar</i> 'to set light, kindle' noun: نِير <i>nūr</i> 'fire' نِيرُونَة <i>nūrōne</i> 'white petter' نِيرْتَا <i>nūrṭā</i> 'hay; a flower perh. ranunculus; arsenic' نِيرُونْيُولَا <i>nūrōnōyūlā</i> 'igneousness, igneous nature' مَنْوَرَا <i>mənōrā</i> 'lampstand, candlestick'; 'minaret'	noun: اِمْرَا <i>emmarā</i> 'lamb'
MEHRI	
√ n-w-r	√ ʔ-m-r
verb: ከአወረ <i>hənāwr</i> 'to need oil on o's hair'; 'to need a shave, a brush-up' noun: ከአወረ <i>nawr</i> 'light'; 'glamour, light from the face of a beauty, of a hero' ከአወረ <i>nāwrət</i> 'lime (powder)'	noun: ከአወረ <i>āmār</i> 'matter, order' ከአወረ <i>ēmūr</i> 'prince' adj.: ከአወረ <i>ēmār</i> 'huge'

JIBBĀLI√ **n-w-r**

verb: *enbér* ‘to put lime on a house’; ‘(first crescent) to rise’
enyér ‘(light) to glow’
 noun: *nírat* ‘powdered lime’

√ **?-m-r**

verb: *’or* ‘to order’
 noun: *’emr* ‘matter, order’

ḤARSŪSI√ **n-w-r**

verb: *nōr* ‘to treat with lime (a mangy camel)’
 noun: *néret* ‘lime. This is extracted from the acacia and used in treating the mange’

SOQOṬRI√ **n-w-r**

noun: *nóre* ‘lime’
menārah ‘tower, lantern’

√ **?-m-r**

verb: *’émer* ‘to be idle’
’émor ‘to say’

SABAIC√ **n-w-r**

verb: *hnr* ‘offer burnt offering’
 noun: *mnrt* ‘altar (for burnt offering?)’

√ **?-m-r**

noun: *’mr* ‘sign’; ‘omen’; ‘oracle’

GƏ’ƏZ√ **n-0/w-r**

noun: *ḠC, ḠC** (K*) *nār, nur* ‘light, fire’
ḠC-norā ‘chalk, lime’
ḠCḥA (K*) *nār’el*, *ḠA* (T) *nārel* ‘name of star’
 verb: *ḠC nora* ‘to be tarnished, be infamous’
 noun: *ḠAḗ* *nawr* ‘blemish, spot, stain, blot, disgrace, iniquity, physical defect, infirmity’
ḠAḗ (K*, Y) *naw(w)ara* ‘to be lit, be lighted, illuminate’

√ **?-m-r**

verb: *ḠAḗ* *’ammara* ‘to show, indicate, tell, make a sign, make known, demonstrate, inform, instruct, refer’
 noun: *ḠAḗ* *’ammāre* ‘sign, demonstration, indication, revelation, pointing toward, pointing at the sacred bread or the cup during service’
ḠAḗ *’amer* ‘governor’

AMHARIC√ **n-0/w-r**

noun: *ḠC-nora* ‘lime (from limestone), whitewash’
 verb: *ḠAḗ* *tānāwwärä* ‘to be shamed, made ashamed, be accused or charged with sth. shameful, to be, become shameful, a disgrace; to be criticized, to be hated, disliked, to be humiliated’
 noun: *ḠAḗ* *nāwər* ‘disgrace, dishonour, scandal, infamy, ignominy, shame’
ḠCḥA *nar’el* ‘star of the rainy season’

√ **?-m-r**

noun: *ḠAḗ* *’ammārar* ‘management (handling), direction (management), guidance, conduct, policy, leadership’
ḠAḗ *aməro* ‘mind, intelligence’

Table 2a Verbs of vision (1)²⁰

ARABIC		
√ b-ṣ-r	√ š-h-d	√ ʕ-y-n
verb: بصر 'to look, see'; V 'to look at; to think about; to see reason'; X 'to have the ability to see; 'to be insightful; to be intelligent; to think about' noun: بصر <i>baṣar</i> 'sight, look; perception' بصيرة <i>baṣīra</i> 'insight, comprehension'	verb: شهد <i>šahida</i> 'to be a witness; to be present; to see'; III 'to look at; to observe' noun: شاهد <i>šahīd</i> 'witness' مشاهدة <i>mušāhada</i> 'viewing, looking; appearance, vision; observation'	verb: عين II 'to individualise, specify, signify; to determine; to nominate; to eye sb.' III 'to inspect, view sth.' V 'to see; be determined; to behoove, be obligatory' noun: عين 'eye; evil eye; source; spy; hole; selection; important man; substance; self, individuality; mesh; thing, cash'
AKKADIAN		
		√ 0-0-n noun: <i>īnu(m)</i> 'eye' <i>īn alpi</i> '(spy-) hole, mesh, interstice (of net)'; 'spring, well'
UGARITIC		
		√ ʕ-0-n verb: 'n 'to see, look (at), watch, spy' noun: 'n 'eye; spring'
PHOENICIAN		
		√ ʕ-0-n noun: 'n 'spring' 'n 'š 'in public view'
BIBLICAL HEBREW		
	√ š-h-d	√ ʕ-y-n
	noun: שֹׁהֵד <i>šāhed</i> 'witness'	part.: עָן <i>owen</i> 'to look at so. resentfully' noun: עַיִן <i>ayin</i> 'eye; source'
BABYLONIAN ARAMAIC		
	√ š-h-d	
	verb: שִׁהַד, שִׁהַד <i>šhd, šhd</i> 'to testify, bear witness, affirm' noun: שֹׁהֵדָא, שֹׁהֵדָא <i>sohdā, šol</i> 'witness' שֹׁהֲדוּתָא, שֹׁהֲדוּתָא <i>sohdūtā, šohdūtā</i> 'evidence, testimony'	

²⁰ See also http://www.hf.uio.no/jais/volume/vol17/v17_07i_isik_table2.pdf for an "all-in-one" view.

PALESTINIAN ARAMAIC		
	√ ś-h-d	√ ʕ-y-n
	verb: שְׁהַד, שְׁהַד <i>śhd, śhd</i> ‘to testify, admonish’ noun: שְׁהָדָא <i>śāhādū</i> ‘testimony, evidence’ שְׁהָיָד <i>śāheyd</i> ‘witness, notary’	verb: עִינִי <i>ʕyny</i> ‘to guard, watch’ noun: עֵינַן <i>ʕyn</i> ‘eye, draft hole of an oven; spring’
SYRIAC ARAMAIC		
	√ s-h-d	√ ʕ-y-n
	verb: سَهِد <i>səhed</i> ‘to witness, testify’ noun: سَوْدُتَا <i>sōhduta</i> ‘witness, testimony, adjuration’; ‘attestation, evidence, cited or quoted witness’; ‘confession, martyrdom’	verb: عَيْنَ <i>ʕayn</i> ‘to eye, look at, perceive; to point out, show’ noun: عَيْنَا <i>ʕynā</i> ‘eye; intelligence, mental eye; view, opinion; opening, span of a bridge; buds of a vine; the colour, sparkle of wine, of precious stones’
MEHRI		
√ b-ṣ-r	√ ś-h-d	√ ʕ-y-n
verb: <i>bēṣar</i> ‘to dawn’ <i>abōṣar</i> ‘to go in the twilight, evening’ <i>həḇṣāwr/həḇṣārōt</i> ‘to see well’ noun: <i>bəṣār</i> dawn <i>bəṣōrət</i> ‘right advice’; ‘cleverness’	- verb: <i>śhed</i> ‘to report, testify’	verb: <i>ʔāyōn</i> ‘to put the evil eye on so.; to look enviously’ <i>ʔāytōn</i> ‘to spy on, spy out; to betray, give away’ noun: <i>ʔāyn</i> ‘eye; spring of water; spy’
JIBBĀLI		
√ b-ṣ-r	√ ʕ-y-n	
verb: <i>ebṣér</i> ‘to see well’ <i>bṳṭṣar</i> ‘to foretell, be far-seeing’ noun: <i>biṣṳrt</i> ‘cleverness, good advice’	verb: <i>aʕyín</i> ‘to keep an eye on’ <i>aʕīn</i> ‘to spy on, out’ noun: <i>ʔhn</i> ‘eye; spring; spy; evil eye’	
ḤARSŪSI		
√ b-ṣ-r	√ ʕ-y-n	
verb: <i>báyṣer</i> ‘to dawn’ <i>abēṣer</i> ‘to go in the evening’ <i>abṣōr</i> ‘to see well’ noun: <i>bəṣār</i> ‘dawn’; <i>abṣār d-āyn</i> ‘the iris of the eye’ <i>bəṣōret/bəṣāyer</i> ‘story’; ‘moral tale’; ‘good advice’	verb: <i>ʔāyōn</i> ‘to cast the evil eye on (so.)’ noun: <i>ʔāyn</i> ‘eye; loop for a button’	

SOQOTRI		
	√ š-h-d	√ ʕ-y-n
	verb: <i>šéhed</i> 'to behold, observe' <i>šod</i> 'to inform'	verb: <i>éyon</i> 'to look at, harm with the look' noun: <i>ain</i> 'eye'
SABAIC		
	√ š-h-d	√ ʕ-y-n
	noun: <i>šhd</i> '? testimony'	noun: <i>ʕyn</i> 'eye; ?money, cash' <i>mʕynt</i> 'source, waterspring'
GƏʕZ		
		√ ʕ-y-n
		verb: <i>Øʕʔ</i> <i>ʕyyana</i> 'to contemplate, observe, perceive, view mentally, evaluate, examine, inspect, put in order' noun: <i>Øʕʔ</i> <i>ʕyn</i> 'eye, spring source, tongue (of a balance), engraving (of a seal)'
AMHARIC		
		√ ʕ-y-n
		noun: <i>ʕʕʔ</i> <i>ʕyn</i> 'eye, sight, knot (in a board) <i>ʕʕʔ ʔ</i> <i>ʕynāt</i> 'kind, sort, species, type, nature (kind), quality, make (of merchandise)'

Table 2b Verbs of vision (2)

ARABIC	
√ ʔ-l-l	√ l-h-z
verb: <i>ʔall</i> 'to bedew'; IV 'to look down, overview; reign; to tower' noun: <i>ʔall</i> <i>ʔall</i> 'dew, drizzle' <i>ʔlāla</i> <i>ʔlāla</i> 'appearance; view'	verb: <i>lahẓ</i> 'to look at, observe, perceive'; III 'to look at, notice; to watch, monitor' noun: <i>lahẓ</i> <i>lahẓ</i> 'glance' <i>mulāḥaẓa</i> <i>mulāḥaẓa</i> 'perception; observation; remark; control, monitoring'

Note: None of the roots is attested with extended meaning in any Semitic language other than Arabic.

Table 2c Verbs of vision (3)

ARABIC	
√ n-ṣ-r	√ r-ʔ-y
verb: نظر <i>naẓar</i> ‘to see, look at, sight; to think about, examine; to judge’; II ‘to compare’; VIII ‘to wait’ noun: نظر <i>naẓar</i> ‘looking; sight; view; insight; perception; examination; theory; consideration’	verb: رأى <i>raʾā</i> ‘to see’; II ‘to think about, consider sth.’; III ‘to fear sb., guard against sb.’ noun: رأى <i>raʾy</i> ‘opinion; advice; decision’ رؤية <i>ruʾya</i> ‘sight; glance; opinion; reflexion, consideration’
AKKADIAN	
√ n-ṣ-r	
verb: <i>naṣāru(m)</i> ‘to guard, protect’ noun: <i>niṣirtu(m)</i> 1. ‘treasure’; 2. ‘secret’ <i>niṣrum</i> ‘protection’	
UGARITIC	
√ n-ḡ-r	
verb: <i>nḡr</i> ‘to protect, guard’ noun: <i>nḡr</i> ‘guard, guardian’	
PHOENICIAN	
√ n-ṣ-r	
verb: <i>nṣr</i> ‘to protect’	
BIBLICAL HEBREW	
√ n-ś-r	√ r-ʔ-h
verb: נָצַר <i>nāṣar</i> ‘to observe, protect, guard, watch’	verb: רָאָה <i>rāʾāh</i> ‘to see; to look at, after so.’ noun: רִאיוֹת <i>rāʾūt</i> ‘looking (at)’ רָאָי <i>rāʾī</i> ‘mirror’ רֹאֶה <i>roʾeh</i> ‘seer’
BABYLONIAN ARAMAIC	
√ n-ṭ-r	
verb: נָטַר <i>nṭr</i> ‘to guard, wait, remain fresh’ noun: נָטַרָא <i>nāṭrā</i> ‘watchman, guardian’ נְטַרְתָא <i>nəṭārṭā</i> ‘protection’	
PALESTINIAN ARAMAIC	
√ n-ṭ-r	√ r-ʔ-y
verb: נָטַר <i>nṭr</i> ‘to guard, watch, keep, observe’ noun: נְטַרָא <i>nṭrā</i> ‘safekeeping’	noun: שְׂפָרָא <i>špārā</i> ‘appearance, form’

SYRIAC ARAMAIC	
√ n-ṭ-r	√ r-h-0
verb: ܢܬܪ <i>nəṭar</i> 'to guard, watch, keep'; 'to keep, observe (a covenant, command, law)'; 'to keep, retain, preserve, keep (in memory)'; 'to observe, take heed, watch, spy'	verb: ܠܚܐ <i>rəhā</i> 'to watch closely, spy out, be on the look out for'
noun: ܢܬܪܐ <i>nəṭrā</i> 'guard'	
MEHRI	
√ n-ṭ-r	√ r-ʔ-y
noun: <i>nəṭōr</i> 'guard'	noun: <i>rāy</i> 'opinion' <i>məroṭ</i> 'mirror'
JIBBĀLI	
√ n-ṭ-r	√ r-ʔ-y
verb: <i>enṭur</i> 'to guard'	noun: <i>rī</i> 'opinion'
noun: <i>neṭūr</i> 'watchman, guard'	
SOQOTRI	
	√ r-0-y
	noun: <i>rey</i> 'way of seeing, idea'
SABAIC	
√ n-ṣ-r	√ r-ʔ-y
verb: <i>nṣrhw</i> 'to protect, guard'; 'to bethink one's self of, remember'	verb: <i>r</i> 'to see'
noun: <i>nṣr</i> 'protection, care'; '(royal) officials'	noun: <i>hr'yt</i> 'oracular vision'
GƏ'ƏZ	
√ n-ṣ-r	√ r-ʔ-y
verb: ܢܫܪ <i>naṣṣara</i> 'to look, look at, look up to, look on, look toward, view, watch, regard, glance at, be on the watch, observe, consider, perceive, behold, examine, survey, turn the eyes to'	verb: ܠܪܐ <i>rə'ya</i> 'to see, observe, look, look at, look on, regard, contemplate, consider, watch, have a vision, take notice of, notice, behold, perceive, explore'
noun: ܢܫܪܐ <i>nəṣṣāre</i> 'view, look, glance, gaze, viewing, sight, vision, aspect, appearance'	noun: ܠܪܐ <i>rā'ay</i> 'vision, graze, face, image, likeness, countenance, form, aspect, sight, revelation, appearance, apocalypse'
	ܠܪܐ <i>ra'āyi</i> 'seer, observer, diviner, prophet'
AMHARIC	
√ n-ṭ-r	√ r-ʔ-y
verb: ܐܢܬܐܐܬܪ <i>anəṭaṭtärä</i> 'to aim at, point at, aim (a gun) at'	noun: ܠܪܐ <i>ra'ay</i> 'vision (sth. seen, power of sight), revelation, dream, apparition, sth. conceived in the imagination'
noun: ܐܢܬ <i>anṭar</i> 'opposite, facing'	
ܢܬ <i>nəṭur</i> 'guard, watchman, watcher'	

Note: None of the roots is attested in Ḥarsūsī

The domain of vision in the Semitic language

1. Common semantic sources for vision verbs in Semitic are:

a. The physical nature of sight (light, eyes, sight)

ʕ-y-n	⇒	eye
n-w-r	⇒	light; to shine, light
ʔ-m-r	⇒	to see
b-ʕ-r	⇒	to look
l-h-z	⇒	to look at, observe
r-ʔ-y	⇒	to see
n-z-r	⇒	to see, look at

The common semantic sources for vision verbs are primarily of a physical nature: the words for *eye* (**ʕ-y-n**) and *light* (**n-w-r**) which both denote something physical, are direct references to the perception organ, the eye, and sight enabling light as well the physical action of seeing with the eyes.

b. Metaphorical extensions into and from 'vision':

- Physical motion and physical presence

ʔ-l-l	⇒	to be up > to overlook
š-h-d	⇒	to be present, witness > to see

- Visual monitoring ↔ control and protection

“The basis for this metaphor is probably the fact that guarding or keeping control often involves visual monitoring of the controlled entity; and the limited domain of physical vision is further analogous to the domain of personal influence or control”.²¹

n-w-r	⇒	to be bright > to see > to order, reign
ʔ-l-l	⇒	to be up > to overlook > to reign
ʔ-m-r	⇒	to see > to order
l-h-z	⇒	to look at, observe > to monitor
n-z-r	⇒	to see > to guard, protect
r-ʔ-y	⇒	to see > to fear sb., guard against sb.’

The metaphors of physical motion and physical presence are evident in **ʔ-l-l** and **š-h-d**. Both involve a physical experience. **ʔ-l-l** seems to have the basic meaning BEING UP ACTING DOWNWARDS. The metaphor UP generally stands for control and force, whereas DOWN indicates something subject to control and

²¹ SWEETSER 1990: 32.

force.²² **ṭ-l-l** extends its basic meaning within the concept of BEING UP ACTING DOWNWARDS from *to bedew, sprinkle*, as when light rain is falling from the sky to the surface of the earth; to *overlook*, as in being elevated and thus having an overview—to *look upon from above*; and finally, to *control*. **š-h-d**, on the other hand, combines physical presence with mental awareness. The physical experience described is *to witness, be present*. **š-h-d** is a good example of the concept of SEEING IS KNOWING, as in *I only believe what I see*, only through personal experience and witnessing, assurance of a matter is achieved.

The metaphor of visual monitoring and control can be described as OVERVIEW IS CONTROL. This metaphor combines the metaphor of **ṭ-l-l** UP with the SEEING IS KNOWING of **n-w-r**, **l-ḥ-z**, **n-z-r** and **r-ʔ-y**. This can be understood as from the idea that someone who is guarding something is *looking out*, and someone who is controlling is *seeing everything, having an overview*, therefore exerting personal influence.

2. Target domains for vision verbs, which develop meanings of abstract mental activity

physical sight ⇒ knowledge, intellection

“This metaphor has its basis in vision’s primary status as a source of data; [...] studies of evidentials in many languages show that direct visual data is considered to be the most certain kind of knowledge.”²³

ʕ-y-n	⇒	eye > to determine; inspect; idea
b-ṣ-r	⇒	to look > to think; be intelligent; comprehension
r-ʔ-y	⇒	to see > opinion; reflexion, consideration
n-z-r	⇒	insight; examination; consideration; theory

This metaphor describes understanding is a kind of seeing and ideas as light sources.²⁴

The idea behind this transfer is that knowledge is built upon visual perception and we know what we have seen. Not only is visual data a primary source for knowledge, but in this extension of meaning there is also a second metaphor, namely PHYSICAL VISION IS MENTAL VISION. It is interesting to look at this point also into the Indo-European languages.

For example, the Indo-European root **weid-* ‘to see’ developed from Gk. εἶδον ‘to see, perceive, visit’, perf. οἶδα ‘to know, understand’ to the Eng. word *idea*.²⁵ The same development can be observed in Semitic for **ʕ-y-n** from “common Semitic” **ʕyn* - ‘eye’ to Arab. ‘see’ and ‘idea’.

22 LAKOFF & JOHNSON 1980: 15.

23 SWEETSER 1990: 33.

24 LAKOFF & JOHNSON 1980: 48.

25 SWEETSER 1990: 33.

Summarizing the metaphors involved in the domain of vision, four depending relations can be asserted for the extension of basic meanings to polysemous uses of a word:

- UP IS POSITIVE - KNOWLEDGE IS UP
- SEEING IS KNOWING - OVERVIEW IS CONTROL
- PERSONAL ATTENDANCE/SEEING IS PERSONAL INFLUENCE/CONTROL
- UNDERSTANDING IS SEEING, IDEAS ARE LIGHT SOURCES - PHYSICAL VISION IS MENTAL VISION

Special remark on ʔ-m-r

A special remark has to be made on **n-w-r** and **ʔ-m-r**. I have assembled in *Table 1* **n-w-r** and **ʔ-m-r** together. It is only Akkadian and Ugaritic that show the meaning *to see* also in **ʔ-m-r**. Among these two, only Ugaritic **ʔ-m-r** has both *to see* and *to order (to say)*. In Akkadian, the root **n-w-r** seems to undergo several phonetic changes, attested as **n-w-r**, **n-b-r** and **n-m-r**. Further attestations of **ʔ-m-r** in Akkadian show properties with initial *n-* in some nominal forms. These phonetic properties and the attestation of both meanings in Ugaritic allow to ask whether these two roots might be related in the sense of polysemy. NÖLDEKE described the phenomenon of the change of roots with primae *waw* or *hamza* to *nūn*, but he neither mentioned **n-w-r** nor **ʔ-m-r**.²⁶ Yet, both meanings are semantically related in a way that was described for other verbs. A possible phonetic development might be: **n-m-r** > **n-b-r** > **n-w-r**, and **ʔ-m-r** > **n-m-r**. Those changed forms can begin to coexist synchronically involving meaning extension or constriction. Through an invisible-hand-process one form may replace the other or merge with them to polysemous usages of words.²⁷ LESLAU (1987) refers to DILLMANN, who was the first to state that the basic meaning of **ʔ-m-r** was *to stand out, be conspicuous, be clear, be bright* > *make clear, show, say*.²⁸ Then again, those two roots would not be related at all. Another reference in favour of their unrelatedness is to SANMARTÍN (1974) by DONNER, HERBERT (ed.) (1987-2012).²⁹ Having a deeper look into **ʔ-m-r**, the proposals are, that there might be two or even three separate roots with one meaning *to say, order* and the other meaning *to see* and the third one *to be high*. Thinking in metaphors and mental concepts there doesn't seem to be a category for the notion of talking or expressing words leading to the extension to the domain of controlling and power. Viewed conceptually and in favour of the attempt to explain polysemous words as having one common basic meaning they are deriving from, I suggest a common root with a metaphorical extension into the domain of vision. MOSCATI states that there is still evidence in Arabic for the meaning in the domain of vision. He refers to *تأمل ta'ammul* with an exchange of the liquids *l* and *r* meaning

²⁶ NÖLDEKE 1982: 202-206.

²⁷ FRITZ 2005: 46.

²⁸ LESLAU 1987, entry on **ʔ-m-r**.

²⁹ Entry on **ʔ-m-r**.

observation (among others).³⁰ Although there is a still used meaning of the root **ʔ-m-r** denoting to sight as in, امارة sign. The third meaning spoken above of *to become many, much, abundant* is being attested for Arabic by Lane and others. Moscati introduces UNGNAD's hypothesis in which he explains the meaning *to become much* with "(mit Eindrücken) sich füllen – sehen", but this is not sufficient enough to explain the meaning *high, tall* in Hebrew.³¹ Moscati himself is considering all meanings of **ʔ-m-r** to be polysemous uses of the main domain of vision.³² Although he doesn't put his explanation in a cognitive context, his view is easily transferred. **ʔ-m-r** has the meanings to see, to say/order, to be big/much. Moscati's metaphor therefore is SEEING/ BEING VISIBLE AND OVERVIEW → BEING ELEVATED → TALL, BIG, MUCH. But seeing does not per se imply the idea of being elevated. For this reason alone, I suggest a similar development for **ʔ-m-r** as in **ʔ-l-l**. For **ʔ-l-l** I proposed the metaphor BEING UP ACTING DOWNWARDS. But since **ʔ-m-r** does not implicate any vertical *action/motion*, the concept here is rather the *condition* of BEING UP → SEEING, HAVING AN OVERVIEW → CONTROLLING, BEING AN AUTHORITY.

Conclusion

What SWEETSER proved for the Indo-European languages holds also true for the Semitic languages. The multifunctional usage of words from the domain of vision have their extended meaning in the domain of mental activity. Another property of metaphors is its directionality.³³ Which means that they have an impact in both directions and we understand one concept in terms of the other. Knowledge is seeing and seeing is knowledge. Therefore, it can be said, that abstract domains derive their meanings from more concrete domains and that there is a cognitive predisposition for a certain abstract domain to derive its vocabulary from a certain concrete domain.

To sum up, it can be said that linguistic meaning is categorized by its use of syntactic categories (e.g., verb phrase, noun phrase, particles, etc.), by its semantic categories (e.g., object, event, agent, etc.) and by its speech-act conventions. However, we have seen that at least polysemous structures have bodily correlates proven on verbs of vision developing meanings of mental activity in the Semitic Languages.

The conclusion is that the linguistic system is interwoven with our physical experience and cognition. The development of lexical meaning is in dependency to prototype theory, conceptual metaphor, polysemy and metonymy. Thus, language should be analysed in the collective light of the human sciences, which is broadly done so for many languages, but it does not seem to be case in the field of Semitic languages yet. In this study, I focused on only nine roots, but there is far more to be looked into, because this study shows how polysemy reflects human's categorization of things and that they can be accounted for by a cognitive approach.

³⁰ MOSCATI 1946: 116.

³¹ MOSCATI 1946: 124.

³² MOSCATI 1946: 124.

³³ SHEN & PORAT 2017.

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