

“And you will indeed look, but never perceive”

Comparing visual perception verbs in Kindibu: a construction grammar account

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Syntax and lexicon

In this paper, I discuss two visual perception verbs in Kindibu, namely *kumona* and *kutala*. Two related issues are addressed concerning these verbs:

- What are the meanings of *kumona* and *kutala* in Kindibu and subsequently, what are the various constructions that they appear in? In Construction Grammar, constructions are viewed as “stored pairings of form and function” (Goldberg 2003: 219), to which are attributed six sorts of properties: (i) phonological, (ii) morphological, (iii) syntactic properties (these are formal), and (iv) semantic, (v) pragmatic and (vi) discourse properties (these are associated with meaning) (Croft 2001: 18 in Trousdale & Norde 2013: 36). As a result, the different meanings that would, in a traditional way, be attributed to the semantic domain of the verbal lexemes are here analyzed as instantiations of the formally same verb in different constructions. It are the constructions as a linguistic entity that bring about the different but related meanings. A description of the apparent different meanings of the perception verbs thus logically also involves an inventory of the various constructions they figure in.
- A direct corollary of proposing a polysemic network (rather than analyzing the different senses as instances of homonymy) is to establish the underlying link(s) between the various meanings. I will argue, following Sweetser’s (1990) account of perception verbs in (mainly) English and some other Indo-European languages, that the relation between the various meanings of the visual perception verbs in Kindibu is a metaphorical one.

Perception verbs can be looked at from two angles: the modality of the perception and the event type. Most often in the literature the five senses are enumerated as the perception modalities, i.e. sight, hearing, taste, smell and touch. However, I will have to draw a distinction of the senses that is more abstract and at the same time more elaborate in order to adequately describe the polysemic network of *kumona* and *kutala*. Our sensory modalities can be divided into two basic categories: **exteroception**, which is the perception of what’s out there, i.e. the ‘outer (world)’ and **interoception**, which refers to the perception of the ‘inner (body)’ such as pain and hunger (I list these two modes of perception here because they are relevant for this study, but there are nevertheless more, such as proprioception which is the perception of the relative position and movement of the body parts, also termed kinesthetic perception). The five basic senses can all be categorized as subtypes of exteroception. We will see that the semantic scope of *kumona* extends the field of exteroception and infiltrates that of interoception in which it is used to denote events of nociception (perception of pain), the palatability of appetite (both hunger and thirst), and furthermore perception of non-material stimuli which I shall term psychoception (the perception of psychological feelings such as fright, anger, grieve, not to be confused with cognitive activities such as thinking and understanding). It can be argued that the feelings of fright, anger and grieve are caused by material stimuli, but this

is only indirectly so. In contrast with the basic senses, which clearly denote events where a Senser perceives something in the outer world which is then processed cognitively in the brain, psychoceptive senses can be said to be secondary, viz. they are (or rather can be) the result of perceiving the environment. Furthermore, it is not hard to think of a situation in which the environment does not look frightening at all, but the Senser knows (due to previously acquired information) that something bad might happen at any moment, and thus feels afraid. There should thus be no direct relation between exteroceptive and psychoceptive senses.

With regard to the type of event, some authors make a basic distinction between ‘active’ versus ‘passive’ (Willems 1983: 150, Willems & Defrancq 2000: 8), ‘agentive’ versus ‘non-agentive/neutral’ (Willems 1983: 158, Willems & Defrancq 2000: 9), and/or ‘experiencer’ versus ‘stimulus’ verbs (Usoniene 1999: 212). I will adopt the categorization of Viberg (1984) in that it combines all the above oppositions. He (1984: 121) proposes three event types: **activity**, **experience**, and **copulative**, adapted by Evans & Wilkins (2000: 553) as **controlled activity**, **non-controlled experience**, and **source-based copulative (state) construction** respectively. The different terms are summarized in table 1 with an example of an English perception verb.

Table 1. Even-type categorizations

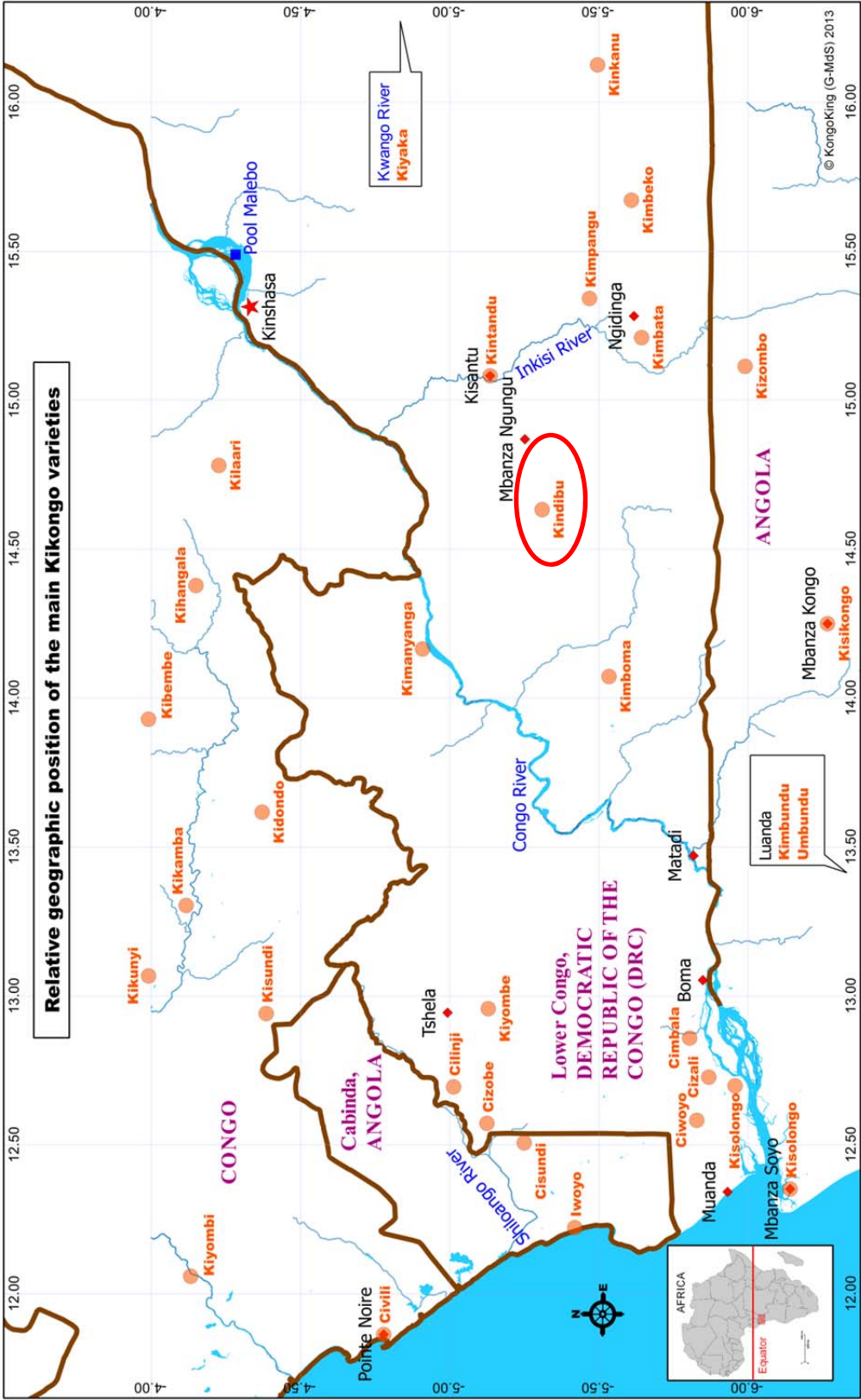
(controlled) activity <i>look at</i>	non-controlled experience <i>see</i>	(source-based) copulative <i>look, seem, appear</i>
active	passive	/
agentive	non-agentive/neutral	/
experiencer		stimulus

Evans & Wilkins (2000) make an important distinction between **interfield** and **transfield** polysemy. The former pertains to a perception verb denoting one type of modality that also acquires the meaning of another modality. Viberg’s (1984) typological account of the polysemy of perception verbs focusses entirely on this type of polysemy, whereas Sweetser (1990) discusses the polysemy of perception verbs acquiring meanings that do not relate to the senses such as cognition (knowledge, intellection), physical manipulation and control.

Kindibu is a (dialectal) variety of the Kikongo dialect continuum. This continuum runs from the south of Gabon to the northern region of Angola, covering the Republic of the Congo, the Lower Congo province of the Democratic Republic of the Congo and Cabinda. Genealogically the Kikongo varieties belong to the wider Bantu language family, itself constituting a low sub-branch of the Niger-Congo phylum. The relative location of the Kindibu variety within the continuum is indicated on Map 1 below. As we can observe, it is spoken in the central region of the Lower Congo province of the Democratic Republic of the Congo.

This study is corpus-driven, meaning that *all* the data originate from a corpus. The source used is a 1923 translation of the four gospels made by the missionary Vuylsteke. The original source has been digitized and OCR’ed (Optical Character Recognition) with the software OmniPage 18. There are both advantages and disadvantages that have to be considered when using a bible translation as primary source. Perhaps the most important, or at least practical, advantage is that the bible has a very organized structure, allowing optimal comparison between two versions in different languages. This is extremely useful when studying a language with which the researcher is unfamiliar, i.e. that s/he does not speak or comprehend, and furthermore if no informant is available. Such was the case for this research. Moreover, the bible

Map 1. Kindibu and the Kikongo dialect continuum (© G-M de Schryver)



is a text that has been translated in a huge number of languages, so that the researcher can consult a translation in a language that s/he is familiar with (in my case, English or Dutch). The disadvantage, however, is that we are dealing with a translation and not natural language such as a transcribed conversation or literature written by a native speaker (a book, newspaper, pamphlet, etc.). The naturalness of the source can be further questioned because the translation is not a rough paraphrase of the original source, but a rather strict translation of a text that can be categorized as a rather specific religious genre, typically with many formal constructions which do not let themselves translate naturally in other languages. However, the missionaries were almost always trained in the language that they used for translation, and more often than not collaborated with native, evangelized informants.

1. Basic meaning and distinction *kumona* versus *kutala*

Although I have not found a dictionary for Kindibu, we can take a look at closely related Kikongo varieties and list the given meanings for both *kumona* and *kutala*. This is presented in table 2.

Table 2. Dictionary entries of *kumona* and *kutala* in three Kikongo varieties

VARIETY (SOURCE)	KUMONA	KUTALA
Kimanyanga (Laman 1936: 571, 946)	voir, regarder, observer, remarquer, constater; prendre garde, distinguer, mettre à part; découvrir, saisir, comprendre, admettre; éprouver, sentir (le froid, etc); apprendre, entendre dire, témoigner, éprouver, percevoir, apercevoir, être transparent, claire	voir, guigner, regarder de près; rechercher, prendre garde à, inspecter; surveiller, observer; contempler, examiner, remarquer; constater; paraître; prévoir, s'attendre à, attendre; être tourné vers
Kisikongo (Bentley 1887: 351, 423)	to see, observe, view, notice, perceive, descry, espy, distinguish, discern, feel (cold, &c.), find, experience, witness, feel, suffer, to sight	to look, look at, for, after, inspect, notice, view, review, watch, regard, observe, gaze at
Kintandu (Butaye 1909: 160, 252)	1) voir, apercevoir, 2) éprouver, sentir ; – <i>mpasi</i> , avoir mal, souffrir ; – <i>makasi</i> , être irrité; – <i>mbote</i> , se sentir bien, être heureux ; – <i>ndosi</i> , rêver, 3) être transparent	regarder, observer ; être tourné vers

From table 2 we can observe that the most basic or prototypical sense of *kumona* and *kutala* corresponds to the English verbs ‘see’ and ‘look at’ respectively. The differences between these two verbs have been amply discussed in the literature. Gruber (1967: 943) ascribes an agentive meaning to ‘look’, whereas the property of agentivity is lacking in the meaning of ‘see’. This has also been noticed by Willems (1983: 150, 158; 2014: 88-9), who elaborates the differences between the two verbs in French in more detail. The verb ‘voir’ denotes a passive perception of an involuntary, non-agentive Senser, as opposed to ‘regarder’ expressing the active perception of a voluntary agent. The sense of ‘see’ has furthermore a focus on the object (also called ‘Stimulus’, Usoniene 1999, or ‘Percept’, Gisborne 2010), in contrast to ‘look’ which focusses on the agentive Senser (Willems 1983: 158, 2014: 89). A second difference

pertains to the *Aktionsart* of *kumona* and *kutala*. ‘See’ is generally treated as a stative (Gisborne 2010: 154, Viberg 1984: 123, Willems 2014: 89) or achievement (Willems 2014: 89) verb. Gisborne (2010: 127) argues furthermore that when ‘see’ is used in its sense as a physical perception verb, it is underspecified for aspectual *Aktionsart* in English, based on the fact that it can either be stative as in his example presented here in (1a), or dynamic as in (1b).

- (1) a. Jane sees the picture
 b. They are seeing stars.
 (Gisborne 2010: 126, 137)

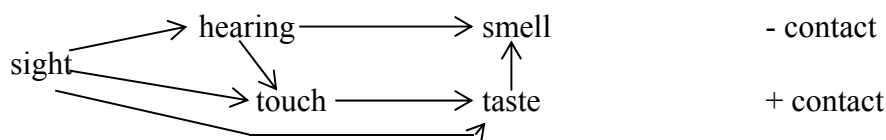
It is not my intention to either confirm or dispose of Gisborne’s proposition, basically because I will not be dealing with English, and he does not assert whether his claim is language-specific or universal in nature. ‘Look’, on the other hand, is always dynamic (Gisborne 2010: 154, Viberg 1984: 123, Willems 2014: 89). As a summary, I will cite Viberg (1984: 123), who states that “*activity* [and thus ‘look’] refers to an unbounded process that is consciously controlled by a human agent, whereas *experience* [and thus ‘see’] refers to a state (or inchoative achievement) that is not controlled” (italics in original).

In the following two sections I will outline the polysemic network of *kumona* (§2) and *kutala* (§3).

2. Polysemic network of *kumona*

We have seen in the previous section that *kumona*’s basic sense is similar to the English verb ‘see’ or French ‘voir’. Before considering the Kindibu verb *kumona* and its various meanings and constructions, I will briefly outline the different senses that have been noted for this visual perception verb in other languages.

I first consider interfield polysemy, i.e. where ‘see’ expresses both visual perception and other sensory modalities. On the basis of a sample of 53 languages from 15 language families, Viberg (1984: 147) proposes the following modality hierarchy:



He (1984: 136-7) explains: “a verb having a basic meaning belonging to a sense modality higher (to the left) in the hierarchy can get an extended meaning that covers some (or all) of the sense modalities lower in the hierarchy.” Viberg (1984: 147) poses that the close connection between hearing and smelling on the one hand, and touching and tasting on the other, is that these pairs differ from each other by the feature of contact. Of special interest is his short account on verbs expressing sight in Swahili, a *lingua franca* spoken in the eastern parts and coastal region of central Africa and belonging to the Bantu language family (Viberg 1984: 137-9). We find the reflex of the same reconstructed proto-form in Swahili as in Kindibu, namely *-ona* (from Proto-Bantu **bona*) for ‘see’. The basic sense of *-ona* is ‘see’ but when used in a construction in which *-ona* has as complement the noun *ladha* ‘taste’, i.e. *-ona ladha*, it takes on the meaning ‘taste’. Note that there is an extension in modality, but not in event type: *-ona ladha* is the experience member of the taste modality, and the verb *-onja*, apparently unrelated to *-ona* (Viberg 1984: 139), expresses the activity type of the taste modality. Equally telling, and a tendency that we will also encounter in Kindibu, is that only the visual experience verb ‘see’ attracts new interfield meanings, but not the visual activity verb, in Swahili *-tazama*, in Kindibu *kutala*, ‘look at’. This study will, in a sense, be more elaborate

than that of Viberg in that I do not restrict the sensory modalities to the five basic senses but also consider interoceptive and psychoceptive senses. The modality hierarchy proposed by Viberg has furthermore been shown to hold in Australian languages by Evans & Wilkins (2000: 556-9).

The most frequently discussed transfield polysemy of perception verbs is the extension to cognition. Sweetser (1990: 38-9) describes the link between visual perception and cognition as follows:

“Thus, vision and intellection are viewed in parallel ways, partly (as I argued earlier) because of the focusing ability of our visual sense - the ability to pick out one stimulus at will from many is a salient characteristic of vision and of thought, but certainly not characteristic of any of the other physical senses except hearing. [...] But most of all, vision is connected with intellection because it is our primary source of objective data about the world.”

Her study of English (and see also Gisborne 2010: 140ff.) in relation to other Indo-European languages, as well as studies on French (Willems 1983, 2014, Willems & Defrancq 2000) demonstrate that this type of polysemy between sight and cognition is quite common in Indo-European languages. However, Evans & Wilkins (2000) show that in the Australian languages it is not ‘see’ but verbs for hearing that have an additional cognitive sense, and thus that the relation between sight and intellect is not universal, but rather cultural. Nevertheless, in both language families do perception verbs expand their meanings into the field of cognition, whereas we do not encounter this semantic extension so productively in Kindibu (at least not from the observation of my data, which originates from a rather small corpus and thus the results drawn from them are not conclusive; the translations given in the dictionaries (table 2) indicate that polysemy between visual perception and cognition does exist in Kikongo varieties).

2.1. *Visual perception*

The most basic sense of *kumona* is visual perception. I have not been able to determine which bible has been used as the original source for the translated Kindibu bible by Vuylsteke, i.e. whether it was written in Hebrew, Greek, Latin, French, English or Dutch. Therefore, I cannot track back the visual perception verbs that were used in the original source. I thus had no choice but to consult a bible version of my own choosing and see which visual perception verbs corresponded in Kindibu to the ones in that bible. An overview is given in table 3, followed by the examples. A list of abbreviations is included at the end of the paper. Because we are dealing with a translation of a text written in a non-related language (Kindibu and probably an Indo-European language), I cannot make a semantically detailed description based on translations of either one of the languages. E.g., I include ‘find’ in the list of visual perception meanings of *kumona*, although ‘find’ in English is definitely not a visual perception verb and implies more agentivity than is normally attributed to ‘see’. However, we cannot be sure why Vuylsteke did not use the lexical equivalent of ‘find’ in Kindibu, or whether in his original source the verb used was ‘find’ (or an equivalent in another language), or a visual perception verb as in the Kindibu translation.

Table 3. Syntactic and semantic properties of *kumona* as physical perception verb

SYNTACTIC FRAME	SEMANTIC FRAME	EXAMPLES
NP <i>mona</i> (NP)	- see - look - watch - notice - find	(1) (2) (3) (4) (5)

The syntactic frame for the visual perception meaning of *kumona* is a transitive construction with a subject NP having the semantic function of Senser/Experiencer and an object NP denoting the Stimulus/Percept.

- see

- (1) *Mona mbwene nkenda za zula kiame kina muna Egipto, [...].*
 Ø-mon-a m-mon-idi n-kenda za-a Ø-zula ki-ame
 CL₁₅-see-FV SC_{1sg}-see-PRF CL₉-suffering PP₉-CON CL₇-people PP₇-POSS_{1sg}
 ki-na mu-na Egipto.
 PP₇-be PP₁₈-be Egypt
 ‘(With my own eyes) I have seen the suffering of my people in Egypt, [...].’ (Acts 7:34)¹

- look

- (2) *Kadi omu luta, ye mu mona efwaniswa yeno [...].*
 kadi omu lut-a ye mu Ø-mon-a e-fwaniswa
 CNJ REL₁₈ pass.through-FV CON CL₁₈ CL₁₅-look-FV CL₉-statue
 i-eno.
 PP₉-POSS_{2pl}
 ‘For as I went through the city and looked (carefully) at the objects (of your worship), [...].’ (Acts 17:23)

This sentence could also be translated (starting then from the Kindibu clause) as ‘For as I went through your city and saw your objects’. Notice that in the English construction we find an adverb of manner ‘carefully’ which emphasizes the agentive meaning of ‘look at’, whereas this adverb is not expressed in the Kindibu clause (hence the brackets in the translation).

- watch

- (3) *Vatelamanga kwandi kuna kwanda oyau bakunzayanga [...] mu mona mo.*
 va-telam-ang-a kwandi ku-na kwanda o yawu
 SC₁₆-stand-PROG-FV PRON.EMPH PP₁₇-be far.away AUG PRON₂
 ba-kunzayanga mu Ø-mon-a mo.
 CL₂-acquaintance CL₁₈ CL₁₅-watch-FV PRON₆
 ‘But all his acquaintances [...] stood at a distance, watching these things.’
 (Luke 23:49)

¹ Translations are from an online version of the New Testament (<http://www.devotions.net/bible/00new.htm>).

- notice

- (4) [...], *kansi bamona suku dia nzadi dimosi dina ye kumu, [...]*.
kansi ba-mon-a Ø-suku di-a n-zadi di-mosi di-na
CNJ SC₂-notice-FV CL₅-bay PP₅-CON CL₉-sea CL₅-one PP₅-be
ye Ø-kumu, ...
CON CL₅-beach
‘[...], but they noticed a bay with a beach, [...].’ (Acts 27:39)

- find

- (5) [...] *ye una balembwa kubamona, [...]*.
ye u-na ba-lemb-u-a ku-ba-mon-a,
CON PP₁-be SC₂-fail.to-PASS-FV CL₁₅-OC₂-find-FV
‘[...], but when they did not find them there, [...].’ (Acts 17:6)

Although ‘find’ is not a visual perception verb, the Kindibu sentence could be interpreted as ‘but when they did not see them there’. ‘Find’ most often involves ‘searching through **seeing/looking**’, which is then the result if the object that was searched has been spotted. Thus, ‘find’ is directly related to ‘see’.

2.2. Experiencing

The sense of *kumona* as experiencing incorporates both interoceptive and psychoceptive senses, that is, senses that result either from physical perception of the body or from psychological feelings. Sentences such as the example in (6) are likely to form a bridging context between the visual perception of the outer world and experiencing bodily or psychological feelings.

- (6) [...] *ye k'ubika Mveledi aku ko kamona o wolela.*
ye ka-u-bik-a M-veledi aku ko ka-mon-a
CNJ NEG-SC_{2sg}-let-FV CL₁-Lord POSS_{2sg} NEG SC₁-experience-FV
o Ø-wolela.
AUG CL₅-corruption
‘[...] or let your Holy One experience corruption.’ (Acts 2:27)

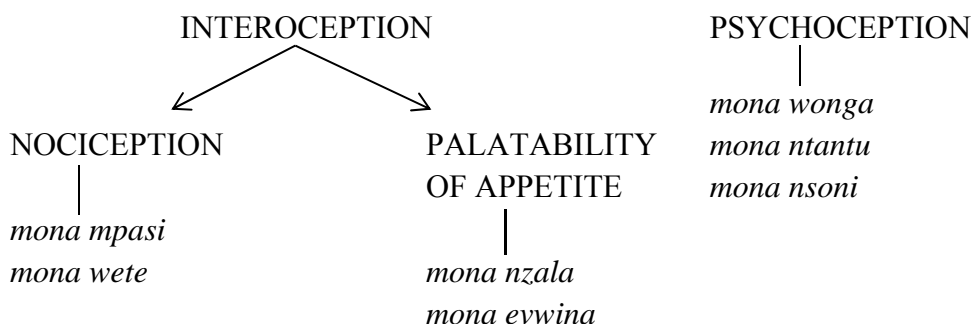
In this example the object complement *owolela* ‘corruption’ is an ‘outer’ stimulus which is, in its totality, experienced by the Holy One. The experiencing without a doubt occurs in the psyche or cognitive realm of the Senser, but the stimulus forms no part of the Senser as an entity.

When *kumona* comes to denote an event different from visual perception, it typically collocates with specific complements that modify its meaning. It is still different from heterosemy in that the verb is not modified by a derivational morpheme. Nevertheless, we are dealing with specific constructions in which each complement is of crucial importance in the meaning of the total construction. For example, if any random NP follows *kumona*, its basic interpretation is ‘see’, but if it takes *mpasi* ‘pain’ as its complement, the only meaning is ‘suffer, feel pain’. The various senses and their corresponding constructions are presented in table 4.

Table 4. Syntactic and semantic properties of *kumona* as experiencer verb

SYNTACTIC FRAME	SEMANTIC FRAME	EXAMPLES
NP <i>mona wonga</i> (NP)	be afraid; fear; be alarmed	(7)
NP <i>mona ntantu</i> (vo SUBCL)	be angry (that); grieve because)	(8)
NP <i>mona nsoni</i>	be ashamed	(9)
NP <i>mona mpasi</i>	suffer; be/feel sick	(10)
NP <i>mona wete</i>	be(come) better	(11)
NP <i>mona nzala</i>	be hungry	(12)
NP <i>mona evwina</i>	be thirsty	(13)

These seven constructions can be semantically categorized as in the following scheme. Due to the lack of a more convenient umbrella term, I categorize ‘be(come) better’ under nociception (perception of pain) because logically the feeling of pain and becoming better are two sides of the same coin (or can be conceptualized as an axis on which feeling pain constitutes a cut-off point, see e.g. Talmy 2001: 64-6 on the pair *sick/well*); the diminution of pain logically implies that one starts feeling better.



Moreover, the implied semantic notion of experiencing can easily be shown lexically in that one can add in all meanings in table 4 the verb ‘experience’ without modifying the original sense of the construction (i.e. ‘experiencing fright, anger, grieve, shame, pain, sickness, hunger, thirst’). Examples are presented below from (7) to (13).

- fear

(7) a. *K'umoni wonga ko, mwan'ankento a Sioni.*

ka-u-mon-i Ø-wonga ko, mu-ana n-kento a
 NEG-SC₂-see-FV.NEG CL₉-fear NEG CL₁-child CL₉-woman CON

Sioni.

Zion

‘People of Jerusalem, don't be afraid!’ (John 12:15)

b. *Kelumoni wonga ko muna awaya bevonda nitu, [...].*

ke-lu-mon-i Ø-wonga ko mu-na awaya be-vond-a ni-tu [...].
 NEG-SC_{2pl}-see-FV CL₉-fear NEG PP₁₈-be REL SC₂-kill-FV CL₄-body

‘Do not fear those who kill the body, [...]’ (Luke 12:4)

- c. *Kansi ovo luwa e vita, ye nsangu za vita, ke lumoni wonga ko.*
 kansi ovo lu-u-a e Ø-vita, ye n-sangu za-a
 CNJ if SC_{2pl}-hear-FV AUG CL₁₀-war CON CL₁₀-rumour PP₁₀-CON
 Ø-vita, ke-lu-mon-i Ø-wonga ko.
 CL₁₀-war NEG-SC_{2pl}-see-FV.NEG CL₉-fear NEG
 ‘When you hear of wars and rumors of wars, do not be alarmed.’ (Mark 13:7)

- anger/grieve

- (8) a. *Ankwa mona ntantu muna wau vo balonganga wantu, [...].*
 a-nkwa mon-a n-tantu mu-na wau vo ba-long-ang-a
 CL₂-person see-FV CL₃-sorrow PP₁₈-be PRON₂ CNJ SC₂-teach-PROG-FV
 wa-ntu [...].
 CL₂-person
 ‘These men were angry because they (the apostles) were teaching the people, [...].’
 (Acts 4:2)

- b. *Mu mona ntantu ilutidi muna diambu di kavovele, [...].*
 mu mon-a n-tantu i-lut-idi mu-na di-ambu di
 CL₁₈ see-FV CL₃-sorrow SC₄-pass-PRF PP₁₈-be CL₅-reason PP₅
 ka-vov-idi, [...].
 SC₁-say-PRF
 ‘Grieving especially because of what he had said, [...].’ (Acts 20:38)

- shame

- (9) *[...] mwan'a muntu mona kemona nsoni, [...].*
 mu-ana a mu-ntu mon-a ke-mon-a n-soni, [...].
 CL₁-child CON CL₁-person see-FV SC₁-see-FV CL₉-shame
 ‘the Son of Man will be ashamed [...].’ (Luke 9:26)

- sufferance/pain

- (10) a. *Ku ntete kwandi kefwanikini mona mpasi zingi, ...*
 ku ntete kwandi ke-fwanik-idi mon-a m-pasi zi-ngi, ...
 CL₁₇ first PRON.EMPH SC₁-have-PRF see-FV CL₉-pain PP₉-much
 ‘But first he must endure much suffering, ...’ (Luke 17:25)
- b. *Ye Yezo uvutwidi, ubavovese vo : o yau bena ye vimpi ke bavwidi ngang'a wuka mfunu ko, kansi ankwa mona mpasi.*
 ye Yezo u-vutul-idi u-ba-vov-idi vo oyawu be-na
 CON Jesus SC₁-answer-PRF SC₁-OC₂-say-PRF QUOT: PRON₂ SC₂-be
 ye vimpi ba-vu-idi Ø-nganga a wuk-a m-funu ko
 with healthy SC₂-have-PRF CL₉-doctor CON cure-FV CL₉-occupation NEG,
 kansi a-nkwa mon-a m-pasi.
 but CL₂-person see-FV CL₉-pain
 Jesus answered, “Healthy people don't need a doctor, but sick people do.” (Luke 5:31)

- become better

- (11) [...], *ke mu mona nkutu wete ko, kansi kwasakidi nkutu mu mpasi.*
ke mu mon-a n-kutu Ø-wete ko, kansi
NEG CL₁₈ see-FV CL₄-head CL₅-goodness NEG but
ku-a-sak-idi n-kutu mu m-pasi.
CL₁₅-DIST-worsen- PRF CL₄-head CL₁₈ CL₉-pain
‘[...] and she was not better, but rather grew worse.’ (Mark 5:26)

- palatability of appetite

- (12) *Mpasi kwa yeno luyukutiswa, kadi nzala mona lumona.*
m-pasi ku-a yeno lu-yukut-is-u-a,
CL₉-pain PP₁₇-CON PRON_{2sg} SC_{2sg}-be.full-CAUS-PASS-FV
kadi n-zala mon-a lu-mon-a.
but CL₉-hunger see-FV SC_{2sg}-see-FV
‘Woe to you who are full now, for you will be hungry.’ (Luke 6:25)

- (13) [...] *uvovele: Evwina imona.*
u-vov-idi: e-vwina i-mon-a.
SC₁-say-PRF CL₅-thirst SC_{1sg}-see-FV
‘[...] he said: I am thirsty.’ (John 19:28)

2.3. Stimulus constructions

Bantu languages have a wide variety of verbal suffixes at their disposal marking a number of derivational functions. One of those functions is the modification of the argument structure of the underived construction. These verbal suffixes are termed reciprocal, passive, applicative (dative), causative, and neuter. Most of these are primarily structure changing devices with minor implications for the semantics (although they are not neutral, i.e. they do have some impact on the semantics of the derived construction). The neuter, however, can be said to be both an argument changing and meaning changing suffix. It strongly resembles the passive in that the NP functioning as the grammatical object of the underived clause becomes the grammatical subject in the neuter construction. It has, however, a more restricted argument structure in that the NP functioning as the original grammatical subject cannot be realized in the neuter construction (whereas in a passive construction the NP denoting the agent usually is still expressible in an oblique phrase). Its semantic function is to foreground the non-agentive entity (an entity is used here to refer to any kind of semantic referent a complement can have: a material or cognitive object, an utterance, an act or a fact, etc.). This accounts for the fact why structurally the agentive NP is inexpressible. The non-agentive entity of a perception event logically is the stimulus. Thus, when the visual perception verb *kumona* features in a neuter construction, the Senser becomes omitted and the Stimulus promoted to subject position. Semantically, the event is modified from a perception situation to a stimulus situation. This is shown in table 5. It should be noted, however, that the argument structure of perception verbs behaves somewhat irregular in neuter constructions (this has also been observed in Dom 2014: 41), namely the reintroduction of the Senser is allowed. This does not correspond

to the general syntactic function of the neuter, but is, on the other hand, the most common argument structure of stimulus constructions (*appear/look like something*). A second meaning denoted by the same construction can be described as the stimulus appearing (i.e., an intransitive construction).

Table 5. Syntactic and semantic properties of *kumona* in a neuter construction

SYNTACTIC FRAME	SEMANTIC FRAME	EXAMPLES
NP <i>moneka</i> (<i>kwa</i> NP)	- look (like something) to - appear (to someone)	(14) (15)

- look (like)

(14) *I una yeno kuna mbazi lumoneka kwa wantu ne ansongi.*

i u-na yeno ku-na m-bazi lu-mon-ik-a ku-a
 CNJ PP₁-be PRON_{2pl} PP₁₇-be CL₉-outside SC_{2pl}-see-NT-FV PP₁₇-CON
 wa-ntu ne a-nsongi.
 CL₂-person and CL₂-righteousness

‘So you also on the outside look righteous to others.’ (Matthew 23:28)

- appear

(15)a. *Bamoneka mu nkembo.*

Ba-mon-ik-a mu n-kembo
 SC₂-see-NT-FV CL₁₈ CL₉-ornament
 ‘They appeared in heavenly glory.’ (Luke 9:31)

b. *Ye mu fuku mbonameso imonekene kwa Paulo.*

ye mu Ø-fuku m-monameso i-mon-ik-idi ku-a Paulo.
 and CL₁₈ CL₉-night CL₉-vision SC₉-see-NT-PRF PP₁₇-CON Paul
 ‘During the night Paul had a vision.’ (Acts 16:9)

In (15b) the intended meaning of the Kindibu construction is ‘and in the night a vision appeared to Paul’, illustrating the possibility of expressing the Senser/Experiencer in an oblique preposition phrase.

3. Polysemic network of *kutala*

3.1. Visual perception

It was discussed above that the most basic sense of *kutala* corresponds to the English equivalent ‘look (at)’. It can also be used as an equivalent of other modalities or subtypes of visual perception such as *watch*, *regard*, *notice*, *consider*, as shown in table 6. It takes a wider variety of complements than I found with *kumona*, especially a number of complement clauses that have not been attested in *kumona* constructions.

Table 6. Syntactic and semantic properties of *kutala* as visual perception verb

SYNTACTIC FRAME	SEMANTIC FRAME	EXAMPLES
NP <i>tala</i> (NP)	- look (at someone/something) - watch (someone/something) - regard someone - see (something) - notice something - visit someone/see someone	(16) (17) (18) (19) (20) (21)
NP <i>tala vo</i> SUBCL	- see that ...	(22)
NP <i>tala e</i> SUBCL	- see how ...	(23)
NP <i>tala o</i> -PP SUBCL	- see what ...	(24)

- look (at)

- (16) *Vo i Yezo untadidi-tadidi, ...*
 vo i Yezo u-n-tal-idi Ø-tal-idi, ...
 CNJ AUG Jesus SC₁-OC₁-look-PRF CL₁₅-look-PRF
 ‘Jesus, looking at him, ...’ (Mark 10:21)

In (16) we have a construction with a pronominal object complement marked on the finite verb by means of the object marker.

- watch

- (17)a. *Ye una kavovele mo, vana batadilanga, ...*
 ye u-na ka-vov-idi mo, vana ba-tal-il-ang-a
 CNJ SC₁-be SC₁-say-PRF PRON₆ REL SC₁-watch-APPL-PROG-FV, ...
 ‘When he had said this, as they were watching, ...’ (Acts 1:9)
- b. ..., *katadidi e ntuba e ndonga itubidi mbongo muna elundilu.*
 ka-tal-idi e ntuba e n-donga i-tub-idi m-bongo
 SC₁-watch-PRF AUG ?? AUG CL₉-many SC₉-throw-PRF CL₉-money
 mu-na e lu-ndilu.
 CL₁₈-be AUG CL₁₁-treasury
 ‘... and (Jesus) watched the crowd putting money into the treasury.’ (Mark 12:41)

The difference between (17a) and (17b) pertains to the argument structure: in the former we have an intransitive construction and in the latter a two-participant, transitive construction.

- regard

- (18) [...] *kadi k'utalanga mu luse lua wantu ko, [...].*
 kadi ka-u-tal-ang-a mu lu-se wa-ntu
 CNJ NEG-SC_{2sg}-regard-PROG-FV CL₁₈ CL₁₁-face CL₂-person
 ko, [...].
 NEG
 [...] for you do not regard people with partiality, [...].’ (Mark 12:14)

- see

- (19) a. *Maria Magdalena ye Maria wa Yozefo, batalanga kwau mu katudilwanga.*
Maria Magdalena ye Maria u-a Yozefo, ba-tal-ang-a
M.M. and Maria PP₁-CON Joseph SC₂-see-PROG-FV
kwau mu ka-tuul-il-u-ang-a.
REL₁₇ CL₁₈ SC₁-put-APPL-PASS-PROG-FV
'Mary Magdalene and Mary the mother of Joses saw where the body was laid.'
(Mark 15:47)

- b. *Kansi nki luele tala? Ngunze?*
kansi nki lu-end-idi Ø-tal-a? N-gunze?
CNJ QST SC_{2pl}-go-PRF CL₁₅-see-FV CL₉-prophet
'What then did you go out to see? A prophet? (Luke 7:26)

The example in (19a) seems near-identical to the sense of seeing attributed to *kumona*, viz. a non-agentive perception with the focus on the stimulus complement. In (19b), however, it is clearly spelled out that the movement has a purpose, namely the attempt to perceive something or someone, which conforms more closely to the prototypical features attributed to 'look'.

- notice

- (20) *[...] kansi mwangu una muna disu diaku, k'utala wo ko?*
kansi mu-angu u-na mu-na di-isu di-aku ka-u-tal-a
CNJ CL₃-log PP₃-be PP₁₈-be CL₅-eye PP₅-POSS_{2sg} NEG-SC_{2sg}-notice-FV
wo ko?
PRON₃ NEG
'[...], but (why) do you not notice the log in your own eye.' (Luke 6:41)

- visit

- (21) *O mu vutuka tukwenda tadila ampangi muna mbanza zawonso,[...].*
o mu vutuk-a tu-kwend-a tal-il-a a-mpangi
EXCL CL₁₈ return-FV SC_{1pl}-go-FV see-APPL-FV CL₂-believer
mu-na m-banza za-onso, ...
PP₁₈-be CL₁₀-city CL₁₀-all
'Come, let us return and visit the believers in every city, [...].' (Acts 15:36)

- complement clauses

- (22) *E Mfumu k'utala dina ko vo mpangi ame ungyambulanga mu kubikila mono mosi?*
e m-fumu ka-u-tal-a di-na ko vo m-pangi ame
AUG CL₁-leader NEG-SC_{2sg}-see-FV PP₅-be NEG CNJ CL₉-sister POSS_{1sg}
u-n-yambul-ang-a mu ku-bik-il-a mono mosi?
SC₁-OC_{1sg}-abandon-PROG-FV CL₁₈ CL₁₅-leave-APPL-FV PRON_{1sg} one

‘Lord, do you not care that my sister has left me to do all the work by myself?’
 (Luke 10:40)
 (Lit. ‘do you not see that ...’)

(23) *I bavovele Ayudei vo : Tala e nzola ka-nzolanga.*
 I ba-vov-idi A-yudei vo: tal-a e n-zola
 CNJ SC₂-say-PRF CL₂-Jew CNJ see-FV AUG CL₉-love
 ka-n-zol-ang-a.
 SC₁-OC₁-love-PROG-FV
 ‘So the Jews said, ‘See how he loved him!’’ (John 11:36)

(24) *Bavaikidi kwandi kutala oma mavangama, ...*
 Ba-vaik-idi kwandi ku-tal-a oma ma-vang-am-a, ...
 SC₂-come-PRF PRON.EMPH CL₁₅-see-FV REL₆ SC₆-do-MID-FV
 ‘Then people came out to see what had happened, ...’ (Luke 8:35)

3.2. Control

The metaphorical relation between visual perception and control has been discussed by Sweetser (1990) for English, and has been proposed by her as a semantic source rather than a target domain of the sight modality in Indo-European languages. She (1990: 32) states:

“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 domains of physical vision is further analogous to the domain of personal influence or control.”

In Kindibu we find the reverse direction of semantic broadening, namely from visual perception ‘look’ to control. The constructions that correspond to the meaning of *kutala* as a control verb are presented in table 6.

Table 7. Syntactic and semantic features of *kutala* as a control verb

SYNTACTIC FRAME	SEMANTIC FRAME	EXAMPLES
<i>lu(ki)tala (ke SUBCL)</i>	- guard (oneself)	(25)
	- watch out	(26)
	- take care	(27)
	- beware (that...)	(28)

It seems that the constructions with *kutala* as a control verb typically are intransitive, although logically from a semantic viewpoint one can guard or take care of something. However, in such transitive constructions a different verb is used, which is nicely illustrated in (23). In the sense of control, *kutala* is typically used in the imperative form *lutala*.

- guard

(25) *Lukitadila!*
 lu-ki-tal-il-a
 SC_{2pl}-RFL-guard-APPL-FV
 ‘Be on your guard !’ (Luke 17:3)

In this example the guarded entity is oneself, and thus still functions as an intransitive construction.

- watch out

- (26) *Lutala ye lukeba o funa kua Afarizi ye o funa kwa Erodi.*
 lu-tal-a ye lu-keb-a o Ø-funa ku-a
 SC_{2pl}-watch.out-FV CNJ SC_{2pl}-guard-FV AUG CL₉-yeast PP₁₇-CON
 A-farizi ye o Ø-funa ku-a Erodi.
 CL₂-Pharisee CNJ AUG CL₉-yeast PP₁₇-CON Herod
 ‘Watch out—beware of the yeast of the Pharisees and the yeast of Herod.’ (Mark 8:15)

- take care

- (27) *Ye uvovele kwa yau vo : lutala!*
 ye u-vov-idi ku-a yau vo: lu-tal-a!
 CNJ SC₁-say-PRF PP₁₇-CON DEM₁ CNJ SC_{2pl}-take.care-FV
 ‘And he said to them, ‘Take care!’ (Luke 12:15)

- beware

- (28)a. *Lutala, luyingila ...*
 Lu-tal-a, lu-yingil-a ...
 SC_{2pl}-beware-FV SC_{2pl}-guard-FV
 ‘Beware, keep alert ...’ (Mark 13:33)
- b. *Yandi vo : Lutala ke luakitumukwa.*
 yandi vo: lu-tal-a ke lu-a-ki-tumuk-u-a.
 PRON₁ QUOT SC_{2pl}-beware-FV CNJ SC_{2pl}-DIST-RFL-lose-PASS-FV
 ‘And he said, ‘Beware that you are not led astray.’ (Luke 21:8)

3.3. Cognition

I have found one instance in which *kutala* denotes a cognitive event, viz. ‘consider’. Its argument structure is identical to that of its visual perception sense, as shown in table 7.

Table 8. Syntactic and semantic properties of *kutala* as cognitive verb

SYNTACTIC FRAME	SEMANTIC FRAME	EXAMPLES
NP <i>tala</i> (NP)	- consider something	(26)

The relation between sight and cognitive ‘consider’ can be best described as forming a mental picture of something in one’s mind, which is a semantic feature present in both senses (see Gisborne 2010: 133ff.). A bridging context can constitute the imagining of a material, real-world entity that can be physically observed or seen as well, such as *ravens* in (26a), and only later includes the imagining of abstract facts that cannot be directly perceived, but of which one can only form a mental image, such as ‘an inner light’ in (26b).

(26)a. *Lutadila ngono-ngono, vo kezikunanga ko, ye kezivovanga ko,*
 Lu-tal-il-a n-gonongono, vo ke-zi-kun-ang-a ko
 SC_{2pl}.consider-APPL-FV CL₁₀-raven CNJ NEG-SC₁₀-sow-PROG-FV NEG
 ye ke-zi-vov-ang-a, ...
 CNJ NEG-SC₁₀-reap-PROG-FV
 ‘Consider the ravens: they neither sow nor reap, ...’ (Luke 12:24)

b. *I diau tala vo, mwini una muna ngeye kewakadi tombe ko.*
 I diau tal-a vo mu-ini u-na mu-na ngeye
 therefore consider-FV CNJ CL₃-light PP₃-be PP₁₈-be PRON_{2sg}
 ke-u-a-kal-i Ø-tombe ko.
 NEG-SC_{2sg}-DIST-be.PST-FV.NEG CL₉-darkness NEG
 ‘Therefore consider whether the light in you is not darkness.’ (Luke 11:35)

3.4. Evaluation

The evaluative sense of *kutala* is closely related to the cognitive sense which commonly associates with visual perception verbs in other languages. It can best be explained as an abstraction metaphor, viz. from physical visual perception to cognitive evaluation. Moreover, to give an evaluative opinion about something, the mind has to have perceived and grasped specific properties of the object. The metaphorical link is also found in English with the expression ‘look down on something’. It pertains to the semantic notion of height which is apparently related to superiority. In a comparison of two entities, the higher or bigger one is superior to the lower or smaller entity. The evaluative constructions for *kutala* are presented in table 9.

SYNTACTIC FRAME	SEMANTIC FRAME	EXAMPLES
NP <i>tala</i> NP	- look on something/someone - scorn someone/something	(27) (28)

As we can observe, the syntactic frame is identical to that of visual perception constructions with *kutala*. I have not studied selectional restrictions in either one of the constructions that would resolve ambiguity between a construction and its different semantic readings, and consider this as part of future work.

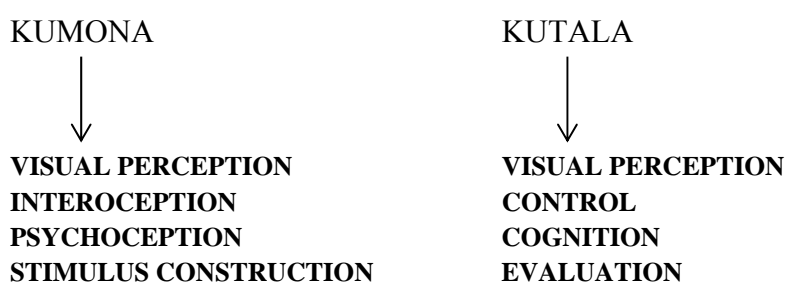
- evaluation

(27) *Kadi katadidi o lusakalalu lua nleke andi, [...].*
 kadi ka-tal-idi o lu-sakalalu lu-a n-leke
 CNJ SC₁-look.on-PRF AUG CL₁₁-lownliness PP₁₁-CON CL₁-servant
 andi.
 POSS₁
 ‘For he has looked (with favor) on the lownliness of his servant, [...].’ (Luke 1:48)

- (28) [...] *kansi e tempelo dia Diana diampwena talwa ditalwa* [...].
 kansi e Ø-tempelo di-a Diana di-a-mpwena Ø-tal-u-a
 CNJ AUG CL₅-temple PP₅-CON Diana PP₅-CON-great CL₁₅-scorn-PASS-FV
 di-tal-u-a.
 SC₅-scorn-PASS-FV
 ‘[...] but also that the temple of the great goddess Artemis will be scorned [...].’
 (Acts 19:27)

4. Conclusion: comparison polysemic network and core difference between *kumona* and *kutala*

After the presentation of all the senses of the two visual perception verbs, we can make a summarizing comparison of their polysemic network. This is shown below.



The polysemy indicates that the difference between *kumona* ‘see’ and *kutala* ‘look’ can be taken one step further in Kindibu than ‘non-agentive vs. agentive perception’, ‘involuntary vs. voluntary Sensor’, and ‘focus on Stimulus vs. focus in Sensor’. The related senses of *kumona* all pertain to perception of an abstract ‘inner’ (both physical as relating to one’s body and psychological as relating to the mind), and those of *kutala* to an abstract ‘outer’, both willful, volitional perception as well as forming opinions and purposefully scanning the environment. The polysemic network furthermore shows that the semantic broadening of visual perception to cognition as a productive metaphorical change in the semantic content of a verb and construction, is not as widespread as studies of (mainly) Indo-European languages could make us believe. This has already been asserted and shown by Evans & Wilkins (2000) for Australian languages, and is confirmed here. The relation between cognition and visual perception thus probably is not universal but culture conditioned.

List of abbreviations

APPL	applicative (dative)
AUG	augment
CAUS	causative
CL _x	nominal prefix (class number in subscript, here represented by ‘x’)
CNJ	conjunction
CON	connective
DEM	demonstrative
DIST	distal tense

EMPH	emphatic
EXCL	exclamation
FUT	future
FV	final vowel
MID	middle
NEG	negative
NT	neuter
OC	object concord
PASS	passive
POSS	possessive
PP _x	pronominal prefix
PRF	perfect suffix
PROG	progressive
PRON	pronoun
PST	past
QST	question
QUOT	quotative
REC	reciprocal
REL	relative
RFL	reflexive
SC	subject concord

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