Questionnaire for quality verbs in African languages Stefan Elders†, Holger Tröbs, and Amina Mettouchi¹

Abstract

In quite a few African languages property words are expressed through lexical items that are clearly verbal in character. The verbal behaviour of these items varies from language to language. This questionnaire provides a tool to guide the description of such verbs expressing property concepts in African languages. It has been developed as a typological-oriented questionnaire for descriptive linguists and fieldworkers allowing them to determine the possible existence and language-specific characteristics of a word class of 'quality verbs'.

¹ We would like to dedicate this questionnaire to our colleague and friend Stefan Elders, a passionate linguist and fieldworker who passed away much too early. We would like to express our gratitude to all members of the German/French *Projet International de Coopération Scientifique* (PICS) for their contributions during the workshops on property concepts in African languages at Bayreuth and Paris between 2005 and 2006, namely R. Bôle-Richard, O. Boukari, R. Boyd, P. Boyeldieu, B. Caron, D. Ibriszimow, M. Lafon, G. Miehe, Y. Moñino, B. Nédellec, P. Nougayrol, L.-M. Perrin, N. Quint, M. von Roncador, E. Rothmaler, P. Roulon-Doko, G. Segerer, M.-C. Simeone-Senelle, and K. Winkelmann. We are also grateful to F. Ameka, D. Creissels and M. Koptjevskaja-Tamm for their comments on the final presentation of this questionnaire at the Porquerolles workshop (October 2006).

1. Introduction

While working on the expression of property concepts in different African languages in the context of the University of Bayreuth (Afrikanistik)/LLACAN (CNRS, INALCO, Paris 7) *Projet International de Coopération Scientifique* (PICS),² we first observed that in some of these languages property words are expressed through lexical items that are clearly verbal in character. Moreover, it turned out that the verbal behaviour of these items varied from language to language. Some languages of our sample such as the Berber varieties (Kabyle, Tamashek and Tahaggart, cf. Galand

- Niger-Congo phylum: Atlantic (Wolof M. Perrin, Bijogo G. Segerer), Mande
 (Bambara, Duun, Jalonke H. Tröbs as well as Tigemaxo H.Tröbs in cooperation with Th. Blecke), Gur (Kulango St. Elders), Ubangi (Gbaya P. Roulon-Doko);
- Afroasiatic phylum: Berber (Kabyle, Tamashek, Tahaggart A. Mettouchi), Chadic
 (Zaar, Hausa B. Caron), Cushitic (Afar M.-C. Simeone-Sinelle);
- Nilo-Saharan phylum: Central Sudanic (Yulu P. Boyeldieu), East Sudanic (Dajo-Sila P. Boyeldieu).

Moreover, individual studies of the expression of property concepts in thirteen African languages as well as the semantic questionnaire of the PICS project which served as the basis for all comparative and language-specific analyses have been published in Tröbs, Rothmaler & Winkelmann (2008).

² The African languages studied with special reference to quality verbs represent different families of three of the four major African phyla (the languages are listed together with the contributers):

1980), and Bambara (cf. Tröbs 2008a) are reported by their authors to have a subclass of quality verbs characterized by overt marking. In another group of languages including Duun (Samogo, cf. Tröbs 2008b) and Wolof (cf. Perrin 2008) quality verbs could be identified by grammatical restrictions. Yet, in a third group of languages including Yulu (cf. Boyeldieu 2008), Gbaya (Roulon-Doko 2008) and Zaar (Bernard Caron p.c.) one can speak of quality verbs only in purely semantic terms. In these languages no special word class of 'quality verbs' can be delimited either by special markers or by grammatical restrictions. However, in some of these languages (e.g. Zaar) quality verbs vary considerable with respect to their temporal reference and boundedness character.

We were thus faced with the problem of describing and analyzing the different degrees of verbiness of the respective items in order to decide whether we are dealing with a special subclass of verbs or not. More precisely, we were in the need of elaborating a general framework that acts as a tool for the elicitation of all the necessary information for a language specific delimitation of a word class of 'quality verbs'.

Thus, "the questionnaire for quality verbs in African languages" represents our attempt at formulating a guide for the description of verbs for property concepts (or verbs for the expression of 'adjectival' meanings) in African languages. It has been developed as a questionnaire for descriptive linguists and fieldworkers enabling them to determine the possible existence and characteristics of a word class of 'quality verbs'.

The questionnaire consists of two parts, Part A "Formal criteria" and Part B "Semantics". The structure of the questionnaire is based on the assumption that the language specific analysis of word classes must start from formal criteria, that is from "a comprehensive morphosyntactic analysis, one which provides the linguist with as many details as possible of the inflectional and derivational behaviour, the combinatorics, the syntagmatic restrictions, the main or exclusive occurrence in certain syntactic slots, etc. of the lexical items under consideration" (Sasse 1993: 560-561). Therefore, to establish the possible existence of a class of quality verbs, the formal criteria (Part A) must be applied before the semantic criteria (Part B). If there are formal criteria justifying a class of quality verbs, the questions under A, Sections 1-3, have to be answered. Otherwise, the questions under Part B, semantic criteria, have to be answered.

As regards Sections A1 and A2, we have put together questions that should help the descriptive linguist to delimit a subclass of quality verbs on formal grounds. The questions in Section A1 relate to the inflectional (to the category-establishing morphosyntax of verbs, e.g. tense, aspect, mood and person) as well as to the derivational behaviour of the quality verbs. While the questions under Section A1 are all questions on overt marking occurring with the verb, the questions that have been worked out in Section A2 treat cases of covert marking, that is grammatical restrictions that are suggestive of a class of quality verbs. In Section A3 we have developed questions treating the relation between quality verbs and other forms of qualification. Needless to say, those questions concerning the choice between

qualifying strategies are rather tricky and presuppose an excellent knowledge of the language, before a satisfactory answer can be given.

In Part B "Semantics" our focus is on a detailed treatment of semantic and grammatical categories that are prototypically associated with verbs in the languages of the world. We, therefore, ask about the behaviour of quality verbs with respect to temporal reference (Section B1), temporal reference of temporal adjuncts (Section B2), their internal temporal structure (Section B3), state and boundedness (Section B4), their combination with a change-of-state (Section B5), modality (Section B6), voice (Section B7), special semantic effects (Section B8) and lexical semantic classes (Section B9).

It should be kept in mind, that the questionnaire does not pretend to present an exhaustive description of facts related to quality verbs, nor does it intend to give an explanation of the observed facts. The presentation of the questions contains some redundancy to facilitate the application of the questionnaire to a language. For some questions, the answers may seem to be self-evident. There is also some necessary overlap between the phenomena discussed both under Part A "Formal criteria" and Part B "Semantic criteria".

The questionnaire has been inspired by other typological-oriented grammatical questionnaires, especially Comrie and Smith 1977 (general questionnaire), Kulikov and Nedjalkov 1992 (a questionnaire on causatives). Inspiration for the formulation of our questions has further been drawn from: typological literature on adjectives and

qualification (Dixon 1977, Dixon and Aikhenvald 2004) and aspect (Comrie 1976, Sasse 1991); overviews of the grammatical analysis of African languages (Welmers 1973; Creissels 1991); descriptions of individual African languages (Bambara: Creissels 1985; Jalonke: Lüpke 2005) as well as private knowledge of African languages (Bambara: Tröbs; Kabyle: Mettouchi; Kulango: Elders; Wolof: Perrin, Afar: Simeone-Senelle).

Finally, since quality verbs are sometimes referred to as stative verbs in the literature, some comments are in order (see Section B9.4). It has to kept in mind that when we speak of word classes, be it "quality verbs" or "stative verbs", we always have to combine morphosyntactic and semantic criteria. From a semantic point of view quality verbs represent a special set of verbs referring to properties and qualities which are prototypically associated with adjectives, that is, in Dixon's terms to semantic types such as 'dimension', 'age', 'value', 'colour', 'physical property', 'human propensity', 'speed' etc. (cf. Dixon 1977, 2004). Stative verbs – lacking the notions of dynamism and change – represent semantically a larger class that comprises besides quality verbs ('be red') also verbs of perception ('to hear'), psychological verbs ('to believe'), relational verbs ('to cost'), locative verbs ('be there'), etc.

Against this background we consider quality verbs as cross-cutting with semantically stative verbs. In some languages they represent a subset of stative verbs, that is, they have no change-of-state reading and are thus always [-dynamic]. They typically do not occur in the progressive nor as imperatives. In other languages, however, the

restriction on semantic stativity is less strong for quality verbs: They allow for a stative and a dynamic reading depending on the TAM-marking (see Section B4.2.2).

2. Questionnaire for quality verbs in African languages

A. Formal criteria

A1. Special markers defining a class of quality verbs (overt marking)

1.1. Are there markers that occur with quality verbs only?

If so, answer to questions 1.2 to 1.4. If not, go to Section A2.

1.2. Are these markers inflectional morphemes (e.g. Bambara, Kabyle) or derivational (e.g. some Gur languages)?

Note: It should be observed that quality verbs are called 'stative verbs' in certain linguistic traditions. Markers combining with quality verbs are called state markers or stative markers, as is the case with the predicative markers in Mande languages.

- 1.3. Inflectional morphemes
- 1.3.1. How are TAM markers realised that are used with a quality verb:
- a) as verbal affixes (segmental or tonal)?; b) as predicative markers (free words)?
- 1.3.2. Is there a) a single TAM marker for quality verbs or b) are there several TAM markers forming a paradigm? The latter is the case in Bambara: **músa ká sùrun** 'Musa is short.' **músa mán sùrun** 'Musa is not short.': here, the TAM markers **ká** (positive) and **mán** (negative) both mark quality verbs as a special class.
- 1.3.3. How are person markers used with a quality verb realized:

a) as verbal affixes or clitics?; b) as free morphemes?

In Kabyle, quality verbs are identified by the fact that they have specific person affixes in the perfect/accompli. Quality verbs are illustrated and contrasted with other stative verbs and action verbs in Tables 1 and 2 below.

1.3.4. Do quality verbs have the same person marking as other verb types?

If not, describe what type of person marking they take.

Note: Quality verbs in Western Kabyle distinguish neither person nor gender in the plural. Quality verbs in Eastern Kabyle take subject markers that are formally identical to object markers (Allaoua 1992).

- 1.3.5. Is it possible for a verb form defined under A.1 to occur in all tense/aspect/mood forms?
- 1.3.6. If not, what restrictions are there? (This question corresponds to question B.1.4-1.8 with respect to semantics)
- 1.3.7. Are there conjugations or combinations that are competing among the class of quality verbs?

Note: In Kabyle, the standard conjugation (all action & activity verbs + most stative verbs) also applies to verbs that used to have specific personal affixes: the system is thus undergoing regularisation.

1.3.8. What is the behaviour of conjugations or combinations with respect to one another?

Note: It may be the case that there is a regularisation of conjugations/ combinations. If so, what would motivate such a regularisation?

Table 1. Western Kabyle

Standard paradigm for person marking (in bold and italics), here in the perfect(ive)/accompli, **ugad**, 'be afraid'

	Singular		Plural	
	masculine	feminine	masculine	feminine
1	ugad- e γ		<i>n</i> -ugad	
2	t-ugad -e₫		<i>t</i> -ugad- <i>em</i>	<i>t</i> -ugad- <i>emt</i>
3	y-ugad	<i>t</i> -ugad	ugad- <i>en</i>	ugad- <i>ent</i>

Table 2. Western Kabyle

Specific paradigm for person marking (in bold and italics), for quality verbs, necessarily in the perfect(ive)/accompli, meqq°er 'be tall'

	Singular		Plural	
	masculine	feminine	masculine	feminine
1	meqq°er- <i>e</i> γ		meqq°er- <i>it</i>	
2	meqq°er- <i>e</i> .			
3	meqq°er	meqq°er- t		

- 1.4. Derivational morphemes
- 1.4.1. Are quality or stative verbs derived from another class or paradigm?
- 1.4.2. If so, is this derivation productive?

For example, Kulango has derived quality verbs that are not productive.

1.4.3. Is the derivation of quality verbs/stative verbs part of a system of verbal derivation? (e.g. causative derivation, applicative derivation)

1.4.4. From which word classes can quality verbs be derived?

Note: It may be conceivable that quality verbs can be formed from categories other than verbs, for example ideophonic adverbs.

1.5. Are there formal features other than inflection or derivation that define quality verbs?

Note: It may be conceivable that quality verbs in a given language all have the same morpheme structure, without there being a clear inflection or derivation. A case in point would be that all quality verbs are monosyllabic or they all bear a high tone pattern.

A2. Restrictions suggestive of a class of quality verbs (covert marking)

2.1. In case there is no overt marking occurring with the verb, are there indirect indications that are suggestive of the existence of a class of quality verbs?

Two such possible indirect indications are proposed here:

- 2.2. Are there restrictions on syntactic combinations that are suggestive of a class of quality verbs?
- 2.2.1. Are there restrictions on TAM forms of quality verbs, e.g. absence of an incompletive or an imperative?
- 2.2.2. Are there restrictions on positive/negative paradigms that are suggestive of a

class of quality verbs?

2.2.3. Are there other restrictions on syntactic combinations that are suggestive of a class of quality verbs?

Wolof has one special relative clause type for quality verbs, which is distinct from that for active and stative verbs (McLaughlin 2004).

Kulango has intensifying ideophonic adverbs that occur preferably with quality verbs: té-gé hénè, hồ bíí kpírí kpírí (goat-CLF DEM.ANIM.SG, SBJ.ANIM.SG be.black very.black very.black) 'This goat is very black'.

2.3. Are there restrictions on the application of derivation? That is, is there a derivation that only allows for quality verbs to be the input?

For example, in Bambara, the suffix -man for deriving adjectives only applies to quality verbs (although not to all of them). gírin 'be heavy' > gírin-man 'heavy'.

Note: It may be conceivable that only quality verbs can be the source of a certain adjectival derivation, while another adjectival derivation applies to all verbs.

In Kulango, derived adjectives are almost exclusively derived from quality verbs, e.g. búí-rò 'black (singular animate)', búí-kò 'black (singular nonhuman)' < bii 'be black'. (Adjectives are formed by the addition of a noun class suffix to a stem, together with the nominal tone pattern High...final Low.) Individual quality nouns, on the contrary, can be derived from all types of verbs: pátá-réé-gò 'spoilt, a spoilt thing', búí-réé-gò 'black, dirty, a black or dirty thing'. (Individual quality nouns are formed by the addition of the derivative suffix -ree- and a noun class suffix to a verb stem, together with the nominal tone pattern.) Further, a certain type of expressive adverbs is only

formed from the verbal noun of quality verbs: $\mathbf{p}\hat{\mathbf{e}}\mathbf{p}\hat{\mathbf{e}}\mathbf{-k}\hat{\mathbf{j}}$ 'really flat' $<\mathbf{p}\hat{\mathbf{e}}\mathbf{-k}\hat{\mathbf{j}}$ 'be flat' (verbal noun) $<\mathbf{p}\hat{\mathbf{e}}$ 'be flat' (tone pattern High Low High on verbal noun, often with reduplicated stem; verbal noun = verb stem + noun class suffix - $\mathbf{g}\mathbf{j}$, - $\mathbf{k}\mathbf{j}$, nominal tone pattern).

A3. Relation between quality verbs and other forms of qualification

- 3.1. Can quality verbs have several fonctions?
- 3.1.1. predicative: **lèmburu ká kùmu** (lemon AUX be.sour) 'The lemon is sour.' (This and the following two examples are from Bambara.)
- 3.1.2. attributive: **lèmburu kùmu** (lemon sour) 'sour lemon'
- 3.1.3. apposition: **ù yé à kùmu dún** (3PL PFV 3SG sour eat) 'They have eaten it sour.'

Note: what is meant here is 'apposition to the object'. The quality verb is functioning here as a secondary predicate in the sentence.

- 3.2. If so, which one is preferred:
- 3.2.1. in texts?
- 3.2.2. in answers to questions in elicitation?
- 3.3. Do quality verbs have uses/functions that are complementary to those of adjectives (provided the latter exist in the language)?
- 3.4. Under what conditions is there overlap between quality verbs and adjectives?
- 3.5. In case of overlap, what are the contexts triggering the use of quality verbs? Of adjectives?

- 3.6. Same questions as in 3.3-3.5, for qualification by relatives.
- 3.7. Same questions as in 3.3-3.5, for qualification by participles.
- 3.8. If a language has participles (defined elsewhere for the language in question), what relationship is there between the participle and the quality verb?
- 3.8.1. If so, are there participles of quality verbs?
- 3.8.2. If not, are the two categories mutually exclusive? In Bambara for example, participles can only be derived from dynamic verbs.
- 3.9. Is it possible to recategorize quality verbs as process verbs? If so, by what morphological or syntactic means?

For example, Bambara recategorizes quality verbs as process verb by syntactic conversion: **kùmu** 'be sour' > **kùmu** 'become sour'; **lèmburu ká kùmu** (lemon AUX be.sour) 'The lemon is sour.', **ná kùmu-na** (sauce become.sour-PFV) 'The sauce has become sour.'. In this way, it is possible to form a participle from the syntactically derived process verb: **kùmu** 'become sour' > **kùmu-nen** 'turned sour'.

- 3.10. Are ideophonic words capable of operating several syntactic environments, comparable to the possibilities mentioned under 3.1?
- 3.10.1. as adverb modifying a verb
- 3.10.2. as predicate
- 3.10.3. as attributive adjective in the noun phrase

B. Semantics

At this stage of the investigation, quality verbs have already been identified by formal marking or morphosyntactic restrictions.

Questions concerning quality verbs focus on: their behaviour with respect to temporal reference (Section B1), temporal reference of temporal adjuncts (Section B2), their internal temporal structure (aspect) (Section B3), state and boundedness (Section B4), their combination with a verb of change-of-state (Section B5), modality (Section B6), voice (Section B7), special semantic effects (Section B8), lexical semantic classes (Section B9).

B1. Temporal reference of TAM-forms

1.1. What is the default temporal reference of a quality verb?

Note: One would expect present time reference.

1.2. Are there quality verbs that distinguish themselves in their temporal reference from dynamic verbs? If so, in what way?

The following two tests are proposed in the literature: i) *Present time reference test; ii) default aspect test* (Lüpke 2005: 64-65). The latter test overlaps with the former test; Lüpke's test also applies to temporal adjuncts (Section B2).

Welmers (1973: 346-347) observes for stative verbs the non-match of present time and verbal constructions. Although he illustrates this by verbs of perception and psychological verbs, the same applies to quality verbs.

"Not everything that we think of as referring to present time is expressed by a present or a continuative construction in many Niger-Congo languages. First, a number of languages distinguishes two types of verbs, in general 'stative' and 'active'; stative verbs usually include equivalents for most of the 'private verbs' of English [i.e. actions of which only the actor is the proper judge, e.g. 'see', 'feel', 'have', 'be', 'think', 'hear', 'smell', 'believe'; the authors]. For statives, a reference to present time may use the same construction that refers to past time if an active verb is used (...)".

In Welmers' discussion of Yoruba, a verb form labelled 'Past' yields past time reference with a dynamic verb, whereas a stative verb obtains present time reference in the very same verb form.

With respect to the Mande language, Jalonke, Lüpke (2005: 65) formulates a similar distinction in temporal reference for verbs with zero aspect marking: past perfective interpretation with dynamic verbs versus (present) imperfective for stative verbs. Examples: **n faa** (1.SG come) 'I came.', **n waa** (1SG cry) 'I cried.' versus **n tagan** (1SG be.tired) 'I am tired.' (Lüpke 2005: 65). Please note that Lüpke calls quality verbs such as 'be tired' stative verbs.

Wolof arrives at similar distinction in temporal reference: dynamic verbs in the perfect relate to a situation in the past: **lekk naa** (eat 1SG.PRF) 'I have eaten/I ate.', whereas quality verbs have present time reference: **feebar naa** (be.ill 1SG.PRF) 'I am ill.' (Loïc Perrin p.c.)

1.3. Can such a semantic behaviour with respect to temporal reference be explained by:

- 1.3.1. temporal reference only;
- 1.3.2. or does it also imply the internal temporal structure of a verbal situation (aspect)?

Note: What is intended here, is of course the combination of features of an anterior perfective situation with present relevance (= meaning of the perfect, cf. Comrie 1976).

Even though quality verbs are by definition characterized by the lack of an internal temporal structure, this question is formulated here to eliminate verbs that are not stative in the description.

- 1.3.3. What arguments are there for one of the analyses under 1.3.1 and 1.3.2?
- 1.4. What is the temporal reference when:
- 1.4.1. a quality verb occurs *without* a TAM marker?

Provided the system allows for such a possibility, as in Jalonke (see Section B.1.2).

1.4.2. a quality verb occurs with a TAM marker? For example: Bambara, Kabyle.

For a Bambara example with present time reference: **músa ká sùrun** 'Musa is short.' (see Section A1.3.2).

In Jalonke, present time reference for quality verbs can be attained by using two different formal means: zero marking or the perfect marker -xi: balon-na gundu. (ball-DEF be.round) 'The ball is round.' versus balon-na gundu-xi. (ball-DEF be.round-PRF) 'The ball is round.' (cf. Lüpke 2005: 161).

In Kabyle, a tenseless language, quality verbs, as well as stative verbs in general, occur in the perfect(ive), with a default present tense interpretation. However, the

same TAM can yield a past tense interpretation in the appropriate context (narrative). Some quality verbs can occur in the imperfective, with a progressive (change-of-state) reading (redden, whiten, grow tall, etc., instead of be-red, be-white, be-tall, etc. in the perfect(ive)), and past as well as present-time interpretation.

- 1.5. Indicate which combinations are allowed and which ones excluded (see Section A.1.3.3)
- 1.6. Do quality verbs distinguish themselves in this respect from dynamic verbs?
- 1.7. Do quality verbs have a default interpretation in a given TAM?
- 1.8. In case quality verbs allow for recategorization as process verbs, what is the semantic behaviour of the latter in comparison to quality verbs? Cf. the examples for Bambara mentioned under Section A.3.9.

B2. Temporal reference of temporal adjuncts

- 2.1. Do quality verbs combine with temporal adjuncts, such as temporal adverbs 'today', 'now'?
- 2.2. Which combinations are allowed, which ones excluded?
- 2.3. In what respect do TAM forms and temporal adjuncts interact when occurring with quality verbs?

For this purpose, Lüpke (2005: 64-65) developed *the default aspect test* (already mentioned under B1).

"All dynamic verbs were distinguished from stative verbs [= quality verbs in our terminology] through the 'default aspect test'. Jalonke stative verbs unmarked for tense or aspect receive a default present tense interpretation, in contrast to dynamic verbs, which receive a past perfective interpretation [...] These interpretations were tested by examining whether the verb form unmarked for tense or aspect was compatible with xɔri 'now', and what the translational equivalent of the zero-marked verb was. Zero-marked stative verbs, as in (1), admit this temporal adverb, whereas zero-marked dynamic verbs, as in (2) don't."

- (1) xəri, n tagan 'Now, I am tired.' (now 1SG be.tired) (Lüpke 2005: 64),
- (2) *xɔri, n waa *Now, I cry/am crying.' (now 1SG cry) (Lüpke 2005: 64).
- "Dynamic verbs, as in (2), or verbs of change, as in (3), only admit the temporal adverb **xɔri** 'now' if marked for imperfective aspect."
- (3) xɔri, n-faa-ma 'Now, I am coming.' (now 1SG come-IPFV) (Lüpke 2005: 65).
- 2.4. What is the temporal interpretation in the combinations of a quality verb with a temporal adjunct? For example, does a sentence translated by 'The place is cool today' imply both interpretations of state and change-of-state?
- 2.5. Do temporal adjuncts differ among each other in this respect?
- 2.6. How do quality verbs or verbs of state in general differ on this point from dynamic verbs?

B3. Internal temporal structure (aspect)

3.1. Do quality verbs combine with all semantic nuances of perfectivity and imperfectivity, irrespective of their realization? Please state if there are any restrictions.

Note: This question concerns their formal realization in inflection and derivation; the interpretation of their morphosyntactic restrictions as defined in Section B.1.3.1.

3.2. Is it possible to give a language-internal semantic explanation of the behaviour of quality verbs with respect to aspect?

B4. State and boundedness

- 4.1. Do quality verbs always refer to a stable state, e.g. 'the water is hot'?
- 4.1.1. For all TAM forms?
- 4.1.2. For all temporal adjuncts?
- 4.2. If not, do they allow for other interpretations, such as:
- 4.2.1. change of state (inchoative), e.g. 'the water is heating'
- 4.2.2. resultative state (= state resulting from a process), e.g. 'the water has heated' In Jalonke, quality verbs allow for two readings: a stative reading and a change-of-state reading. If quality verbs are not overtly marked for aspect, they denote a state: **krεɔŋ-na melun** (pencil-DEF be.pointed) 'The pencil is pointed'. When combined with the imperfective marker -ma, quality verbs denote the gradual entering into a state. **tum-εε melon-ma a xere nan na** (thorn-DEF be.pointed-IPFV 3SG youth FOC with) 'It's in its young age that a thorn becomes pointed.' Moreover, if the speaker wants to emphasize that a state results from of a change-of-state, s/he uses the aspectually unmarked construction, by adding a postpositional phrase containing an expletive pronoun and a general locative postposition. **krɛɔn-na melun ɛ i**. (pencil.DEF be.pointed 3SG at) 'The pencil has become pointed.'(cf. Lüpke 2005:

158-159)

Note: the questions under 4.1-4.2 are needed to distinguish between two types of languages: languages in which quality verbs only allow for a stative reading and languages in which quality verbs allow for a stative and a dynamic reading depending on the TAM-marking.

- 4.3. If such other interpretations are allowed, under what conditions?
- 4.4. Can the same form have both the interpretation of stable state and another interpretation?
- 4.5. If so, under what conditions?
- 4.6. If both interpretations are distinguished, do they have any formal correlate?

B5. Quality verb combined with a change-of-state verb

- 5.1. Do quality verbs combine with verbs indicating a change-of-state?
- 5.2. Which ones? Representative examples are: 'begin', 'be X-ing', 'stop', 'become', 'grow'.
- 5.3. What is the grammatical status of verbs indicating a change-of-state? Some possibilities:
- 5.3.1. complement-taking verb in a complex sentence;
- 5.3.2. auxiliary;
- 5.3.3. verb in a serial verb construction;
- 5.3.4. other

B6. Modality

- 6.1. Do quality verbs combine with all semantic shades of modality?
- 6.2. If not, are there restrictions which semantic types of modality can occur with quality verbs? (cf. the restrictions in Section A.1.3)

Note: E.g. quality verbs may have forms for indicating real situations only.

6.3. Can the behaviour of quality verbs with respect to modality be explained on language-internal semantic grounds?

B7. Voice

- 7.1. What is the relation between quality verbs and voice?
- 7.2. What is the semantic role of the subject of a quality verb? Does it behave like:
- 7.2.1. an Actor
- 7.2.2. an Undergoer
- 7.2.3. or even something else?
- 7.3. Is it possible to have a causative counterpart to a quality verb? Kulango has both a non-productive causative derivation and a syntactic causative, without any morphological marking: bɔ́gɔ́lá ŋɛ́nɛ̀ bɛ́ (gown DEM.NONHUM.PL be.identical) 'These gowns are identical.' / causative: mì bɛ́ɛ́ká bɔ́gɔ́lá ŋɛ́nɛ̀ (I make.identical gown DEM.NONHUM.PL) 'I have made the gowns identical'; bɔ́gɔ́lá xɛ́rɛ̀ vú (gown DEM.NONHUM.SG be.white) 'The gown is white.' / causative: mì vú bɔ́gɔ́lá xɛ́rɛ̀ (I make.white gown DEM.NONHUM.SG) 'I have made the gown white.'.

In Kabyle, some quality verbs (color verbs as well as others) distinguish an

imperfective (progressive, internal change of state) and a causative derivation (external change-of-state), e.g. **zeggway-Ø** (3rd person perfect(ive)) 'it is/was red', **ye-ttizwiy** (3rd person imperfective) 'it is/was becoming red', **ye-zzewey** = it (3rd person causative perfect(ive) + object clitic) 'he made it (become) red'.

B8. Special semantic effects

8.1. Is it possible to distinguish between: a) verbs lacking a certain TAM-marker (defectivity), and b) those having that TAM-marker, but for which a special semantic effect can be observed?

Note: e.g. Kabyle 'be red' in TAM-form 1, but 'become red'/'redden' in TAM-form 2. In Kabyle, some quality verbs refer to a state in the perfective and an internal change-of-state in the imperfective, see Section B7.3.

8.2. Make a list which verbs belong to which subclasses. Note precisely which values the quality verbs take when they are used with unexpected TAM-forms (e.g. progressivity and/or causativity with the incompletive).

B9. Lexical semantic classes

- 9.1. Is it possible to establish semantic classes of quality verbs according to their lexical meaning?
- 9.2. Is it possible to arrange quality verbs according to the semantic categories of Dixon 2004?
- 9.2.1. Which semantic categories of Dixon are indicated by quality verbs?

1. DIMENSION; 2. AGE; 3. VALUE; 4. COLOUR; 5. PHYSICAL PROPERTY; 6. HUMAN PROPENSITY; 7. SPEED; 8. DIFFICULTY; 9. SIMILARITY; 10. QUALIFICATION (with this Dixon means speaker attitude); 11. QUANTIFICATION; 12. POSITION; 13. CARDINAL NUMBERS.³

For instance, in Kabyle, all of Dixon's semantic categories, except for classes 9 (similarity) and 13 (cardinal numbers), have at least one representative in the class of

³ According to Dixon (2004: 3ff.), these thirteen semantic types are typically associated with the word class adjective. The four semantic types DIMENSION (items like 'big', 'small', 'long', 'tall', 'short' etc.), AGE (items like 'new', 'young', 'old' etc.), VALUE (items like 'good', 'bad', 'lovely', 'atrocious' etc.) and COLOUR (items like 'black', 'white', 'red' etc.) are called core semantic types since they are typically associated with both large and small adjective classes.

The types PHYSICAL PROPERTY (items like 'hard', 'soft', 'heavy', 'wet' etc.), HUMAN PROPENSITY (items like 'jealous', 'happy', 'kind', 'clever' etc.) and SPEED (items like 'fast', 'quick', 'slow' etc.) are called peripheral semantic types since they are typically associated with medium-sized and large adjective classes (Dixon 2004: 4).

Moreover, the six semantic types DIFFICULTY (items like 'easy', 'difficult', 'hard', 'simple' etc.), SIMILARITY (items like 'similar', 'different', 'unlike' etc.), QUALIFICATION (items like 'true', 'definite', 'probable' etc.), QUANTIFICATION (items like 'all', 'many', 'few' etc.), POSITION (items like 'high', 'low', 'near', 'far' etc.) and CARDINAL NUMBERS (but also ordinal numbers like 'first', 'last') are associated with large adjective classes in some languages (Dixon 2004: 5).

quality verbs.

- 9.2.2. Are there subtypes of quality verbs that are restricted to one of the semantic categories of Dixon? An example would be Kulango, where all quality verbs containing the stative derivative suffix all indicate Physical Property.
- 9.3. Are quality verbs characterised by other semantic features, particular to a language, language family or linguistic area? Here are some possible combinations of semantic features:
- 9.3.1. Animacy of the subject of the quality verb;
- 9.3.2. Number of the subject: do quality verbs allow for verb forms indicating verbal plurality (pluractionals) or singulativity? In Kulango, verbs can have pluractional forms. The pluractional of a quality verb always refers to the plural of the subject: bò gásì 'They are big', also bò gásì-tù. (The verbal derivative suffix -tv is pluractional.)
 9.3.3. An example of an areal/genetic feature could be the strong presence of
- 9.3.4. Small classes of particular meanings, such as the ordinal meanings 'be the first', 'be the last one'.

ideophonic verbs among quality verbs in an African language.

- 9.3.5. Other
- 9.4. What are the *language-internal criteria* for different semantic classes of stative verbs?
- 9.4.1. Which classes of stative verbs have to be distinguished apart from quality verbs?

Stative verbs in Kulango divide into quality verbs (largest class); relational verbs,

indicating a relation between a subject and a nominal complement, e.g. 'cost'; perception verbs, e.g. 'see'; psychological verbs, e.g. 'know'; the verb 'be there' (which normally lacks a complement).

9.4.2. Do quality verbs and other semantic classes of stative verbs show the same behavior with respect to state and boundedness (see Section B4)?

Abbreviations

ANIM animate, AUX auxiliary, CLF classifier, DEF definite, DEM demonstrative, FOC focus, IPFV imperfective, NONHUM nonhuman, PRF perfect, PFV perfective, PL plural, SBJ subject, SG singular, TAM tense, aspect, or modality

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