Lexicalization of property concepts: Evidence for language contact on the southern Jos Plateau (Central Nigeria)?

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Abstract

This paper discusses issues of language contact within the Jos Plateau sprachbund *of Central Nigeria. It is known that the non-related Chadic and Benue-Congo languages of this region share numerous lexical and structural similarities, but it is largely unknown whether they also share similarities in their semantics and lexicalization patterns. This paper explores convergences in one such area: the lexicalization of property — or adjectival — concepts in the Chadic (Angas-Goemai and Ron groups) and Benue-Congo (Jukunoid, Tarok and Fyem) languages of the southern part of this* sprachbund. *It presents evidence that these non-related languages share a common lexicalization pattern: the predominant coding of property concepts in state-change verbs. This pattern is probably not of Chadic origin, and it is possible that it has entered the Chadic languages of the Jos Plateau through language contact.*

1. Introduction

The Jos Plateau region of Central Nigeria constitutes a linguistic area or *sprachbund*. Language contact has shaped the non-related Chadic and Benue-Congo languages of this region to the extent that they now share numerous similarities in their lexical forms, phonotactics, (frozen) morphology, and syntactic patterns. It is an empirical question as to whether they also share semantic structures and lexicalization patterns. This paper traces convergences in one such area: the lexicalization of property — or adjectival — concepts within the southern Jos Plateau. The starting point for this study is an unusual lexicalization pattern in the West Chadic language Goemai: this language predominantly lexicalizes property concepts in state-change verbs (e.g., **b'áng** 'become red'), which require overt derivation in order to refer to a state (e.g., **gòe-b'áng** '(be)

a red one'). From a Chadic perspective, this pattern is unusual: Chadic languages tend to lexicalize comparable concepts in nouns or in noun-like adjectives. Therefore, the question arises as to the origins of the verbal lexicalization pattern. The paper explores the possibility that it is of Benue-Congo origin, having entered Goemai through language contact.[1]

Section 2 sets the scene for this investigation by summarizing our knowledge of the Jos Plateau *sprachbund*. Section 3 describes the attested lexicalization patterns: it first discusses Goemai (section 3.1), and then compares Goemai to related (Angas-Goemai and Ron group) and non-related (Jukunoid, Tarok and Fyem) languages of the southern Jos Plateau (section 3.2). Section 4 draws conclusions from the presented data.

2.   The Jos Plateau *sprachbund*

The Jos Plateau is a mountainous area in Central Nigeria that is "noted for its linguistic diversity" (Greenberg 1956: 115; see also Ballard 1971), comprising dozens of languages from two non-related language families: the Chadic branch of Afroasiatic, and the Benue-Congo branch of Niger-Kordofanian.

The history of this region was shaped to a large extent by the establishment and expansion of powerful regional states in the lowlands surrounding the plateau (Isichei 1982; Yearwood 1981): the Kororofa Empire under the leadership of the Jukun (14th to 18th century), and a number of emirates established in the wake of the Hausa/Fulani *jihad* (19th century). The lowland societies — including the ancestors of the Goemai — came under the political, administrative and economic influence of these states, while the inaccessible plateau served as a refuge. Historical evidence points to widespread commercial, social and cultural ties between the different speech communities; and there are reports about numerous small-scale migrations that led to the formation of new ethnic groups. As a result, different groups then often shared traditions of origins, festivals and communal hunts, and political structures. For example, the Goemai oral traditions give a Chadic origin for one subgroup (the Duut

Goemai), but a Jukun origin for the two remaining subgroups (the Dorok and K'wo Goemai).

It is assumed that this socio-political situation is responsible for the formation of a linguistic area, or *sprachbund*, in which non-related Chadic and Benue-Congo languages share linguistic features. This includes the diffusion of lexical material (Gerhardt 1983a; Hoffmann 1970), but also convergences in areas of phonology and grammar (Jungraithmayr 1963b; 1980; Jungraithmayr and Leger 1993; Wolff and Gerhardt 1977; Zima 2009). For example, the languages are known to share similarities in their phonotactics: due to the erosion of word-final morphological material, they have developed a preferred CVC (consonant — vowel — consonant) syllable structure (see especially Storch 1999 for a study of this process among Jukunoid languages), and they all place comparable restrictions on the quality of coda consonants (largely restricted to voiceless plosives, nasals, laterals and trills, and approximants). Another commonality is the loss, or at least reduction, of the Benue-Congo noun class system and the Chadic gender system respectively. For example, Goemai has largely lost the Chadic distinction between masculine and feminine gender, and only retains it in speech act contexts.[2] At the same time, there is evidence that some Benue-Congo noun class prefixes have entered Chadic languages. This includes especially a nasal prefix that occurs with many terms for insects, birds and other small animals (Frajzyngier and Koops 1989; Miehe 1991). The relevant Goemai lexemes, for example, almost always occur with such an initial nasal, e.g., **mfèt**, **mf'óòp**, **njálàng**, **njír**, **nshì** 'types of flies and bees', and many more.[3] These prefixes are unproductive in the present-day languages, but

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2. Notice that a loss or reduction of gender distinctions is not restricted to the Chadic languages of this *sprachbund*. It is also attested in some other West Chadic A (i.e., some, but not all, Bole-Tangale languages) and West Chadic B languages (such as Ngizim or Guruntum), as well as in Central Chadic (see especially Schuh 1989).

3. I use an adapted version of the Goemai practical orthography developed by Sirlinger (1937). The following symbols may not be self-explanatory: **p'**, **t'**, **k'**, **f'**, **s'**, **sh'** = non-aspirated obstruents; **b'**, **d'** = implosives; **oe** = /ə/; **u** = /ʉ/, **o** = /ɔ/. Notice that non-integrated loanwords retain their original spelling (as, e.g., the English loan **cup** 'cup' in example 7c). When quoting data from other authors, I use their orthographic conventions and keep their glosses and translations (if provided), translate them into English (if in German) or add English glosses and translations (gleaned from the available grammatical and lexical information). The following abbreviations are used: ADJ = adjective, ADVZ = adverbializer, CL = classifier, COND = conditional, CONJ = conjunction, CONT = continuous, COP = copula, DEF = definite, DEM = demonstrative, DET = determiner, EMPH = emphasis, F = feminine, FOC = focus, FUT = future, GEN = genitive, I = independent pronoun, IDEOPH = ideophone, INTERR = interrogative, IPF = imperfect, IPFV = imperfective, LOC = locative, LOG.AD = addressee logophoric, LOG.SP = speaker logophoric, M = masculine, NEG = negation, NMLZ = nominalizer, O = object, PFV = perfective, PL = plural, POSS = possessive, PREP = preposition, PRF = perfect, PROG = progressive, PROX = proximal, REDUP = reduplication, REL = relative, S = subject, SG = singular, SPEC = specific article, V = verb, VN =

they were possibly productive at the time of their borrowing. The origins of most such words are unknown, but some words can be reconstructed for Proto-Chadic without the initial nasal (e.g., Jungraithmayr and Ibriszimow 1994: 121 assume that Goemai **mfèt** 'mosquito' goes back to a nasal prefix plus the Proto-Chadic root ***b(r)t**). It is thus possible that — at one stage — Goemai and other Chadic languages have borrowed patterns of noun categorization, not words. The languages also share the category of pluractional verbs. This category is likely to be of Chadic origin (Frajzyngier 1977a; Newman 1990), but the morphological material comes from both Chadic and Benue-Congo. In the latter case, Gerhardt (1983b) argues that the new pluractional morphemes originated in reanalyzed valence-changing morphemes. Many of the languages also share the so-called "intransitive copy pronoun" (ICP) — a pronoun with intransitive verbs that is identical in form and position to the direct object pronoun of transitive verbs (Storch et al., 2011; Frajzyngier 1977b; Newman 1971). Other common patterns include the prevalent use of verb serialization, or the use of sentence-final negation particles.

This brief summary of the literature shows that non-related Jos Plateau languages share considerable similarities in their lexicon, phonology and grammar; it is unknown whether they also share comparable similarities in their semantics. Notice that the pattern of language contact, which has led to the formation of the above *sprachbund*, has changed over the past decades: the Chadic language Hausa has emerged as the dominant *lingua franca* in this area, and speakers of both Chadic and Benue-Congo languages are increasingly shifting towards Hausa.

3.   Lexicalization of property concepts

This section explores the lexicalization of property concepts in languages of the southern Jos Plateau *sprachbund*. Section 3.1 is a case study of lexicalization patterns in Goemai, a West Chadic language (Afroasiatic, West Chadic A, Angas-Goemai group, Southern branch) that is spoken by approximately 200,000 speakers. Section 3.2 then presents comparative evidence from related and non-related neighboring languages.

We know from the typological literature that languages differ considerably in their lexicalization of such property concepts (Dixon 1982; Dixon and Aikhenvald 2004; Stassen 1997). Goemai is a language that does not recognize a separate word class of adjectives, and instead predominantly lexicalizes these concepts in state-change verbs. From a Chadic perspective, this lexicalization

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verbal noun. Goemai example sentences are followed by an identifier that links the utterance to the Goemai corpus archived with the Max Planck Institute for Psycholinguistics.

pattern is unexpected: present-day West Chadic languages tend to either use a nominal coding strategy or to have a separate word class of adjectives (that shows formal similarities to that of nouns). This includes languages from both branches of West Chadic. Among the West Chadic A languages, it includes those that are spoken outside of the Jos Plateau, e.g., Hausa (Abdoulaye 1992; Jaggar 2001: 48–147, 310–400; Newman 2000: 22–33; Wolff 1993: 213–215), Dera (Newman 1974: 35–37), Pero (Frajzyngier 1989: 136–138, 201–205) and Tangale (Jungraithmayr 1991: 30–31). And among the West Chadic B languages, it seems to include languages from all sub-branches, e.g., Ngizim (Schuh 1972: 70–80; 1981: xviii), Miya (Schuh 1998: 203–205, 257–258, 319), Guruntum (Haruna 2003: 36, 53–54), and Boghom and Zaar (Shimizu 1975: 14, 22). Given the predominance of nominal coding strategies in present-day West Chadic languages, the question arises as to the origins of the deviating Goemai pattern.[4] It is this question that motivates my comparison of lexicalization patterns across the languages of the Jos Plateau *sprachbund*.

3.1. Goemai

Goemai does not have a word class of adjectives, and instead recruits inchoative verbs, stative verbs, nouns and adverbs for the purpose of expressing property concepts. This section summarizes the attested lexicalization patterns (section 3.1.1), focuses on the semantics and morphosyntax of the predominant verbal pattern (section 3.1.2), and outlines the overall place of property verbs within the verbal lexicon (section 3.1.3).

3.1.1. Overview: Property concepts in the Goemai lexicon. Goemai lexicalizes most property concepts in verbs. This includes a small number of stative verbs that describe values (e.g., **d'óng** 'be good') and a handful of time-stable properties (e.g., **nyàл̀l** 'be naturally thin'). The vast majority of concepts, however, are coded in inchoative verbs. They cover Dixon's (1982) semantic types of dimension (e.g., **su̱ỏe** 'become long'), physical property (e.g., **zo̱ỏm** 'become cold'), color (e.g., **b'áng** 'become red'), age (e.g., **gyá** 'become old'), and human propensity (e.g., **zо̀k** 'become generous'). Both types of verbs can be nominalized by means of zero derivation to form abstract nouns (e.g., **d'óng** 'be good; goodness'; **b'áng** 'become red; redness'). Given

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4. But see Stassen (1997: 507–512, 518–519) for an alternative diachronic hypothesis: he suggests that the widespread nominal coding strategies are innovations, and that Chadic languages originally made use of verbal strategies instead. He admits, however, that this hypothesis rests on a number of background assumptions that are not uncontroversial. For the moment, I therefore prefer to base my argument on the patterns attested in the present-day languages.

that this derivation is not overt, it is not immediately obvious which form to consider basic. There is, however, considerable evidence that it is the verbs that are basic. First, Goemai has various overt nominalization strategies, but not one single mechanism that derives verbs from nouns (or any other word class). Second, the verbal forms exhibit the full morphosyntactic possibilities of verbs, but the nominal forms occur in restricted nominal contexts only. Third, the nominal forms often denote only a subset of the meaning range of the verbal forms. And fourth, verbal forms are considerably more frequent in natural discourse. Taking all these points into account, I therefore assume that their verbal lexicalization is basic.

In addition to the verbal coding, Goemai expresses a small number of property concepts in nouns and adverbs. In both cases, however, these expressions do not primarily code property concepts.

In the case of nouns, they primarily denote concrete entities. This includes material (e.g., **sh'ép** 'wood; wooden'), gender (e.g., **màt** 'woman; female'), and non-basic colors (e.g., **hààm yím** 'green, lit. color/water of leaves'; excepting **tép** 'become black', **pyá** 'become white' and **b'áng** 'become red'). From a cross-linguistic perspective, the nominal coding of these concepts is not surprising (Stassen 1997: 155–206): Material and gender constitute time-stable concepts, and it is known that such time-stable concepts tend to be expressed in nouns. As for the non-basic color terms, they constitute ad-hoc formations that are based on the typical color of a concrete entity. These formations are very productive, and speakers do not always agree on their reference. That is, it can be argued that they denote, in fact, time-stable properties of concrete entities.

In the case of adverbs, these words primarily express quantification — and some of these quantifying adverbs then additionally express dimension (e.g., **kyôklók** 'small amount, small size'). In addition, there are a few adverbs that code speed (e.g., **d'àt** ~ **d'àd'àt** 'fast'). In their case, there is language-internal evidence that they have developed very recently from verbs of unknown lexical aspect (Hellwig 2011a: 277–279).

3.1.2.   Property verbs and lexical aspect.   This section focuses on the semantics and morphosyntax of property verbs, as they form the predominant group of property-denoting expressions in Goemai. The most important distinction is in terms of lexical aspect: a majority of property verbs is inchoative, and a minority is stative. These two verb classes pattern differently in the morphosyntactic contexts summarized in table (1).[5]

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5. This section focuses on the distinction between inchoative and stative verbs only. For information on other lexical aspect classes and on methodological issues, see Hellwig (2010, 2011b).

Table 1. Comparing Goemai inchoative and stative verbs

	Inchoative	Stative	Examples
Progressive aspect	on-going state change	habitual	1a, 1b
Resultative aspect	yes	no	2a, 2b
Unmarked for tense / aspect	past	present	3a, 3b, 4a
Ideophones	yes	no	5
Transitive alternant	yes	no	6

Cross-linguistically, the distribution and interpretation of the progressive aspect construction constitutes an important diagnostic for lexical aspect classes (e.g., Dowty 1979; Van Valin and LaPolla 1997; Vendler 1967). This is also true for Goemai. Inchoative verbs in this construction receive a progressive interpretation (as **rás** 'are getting lean' in 1a), while stative verbs receive a habitual interpretation (as **d'óng** 'is always beautiful' in 1b).

(1) a. **À   ńd'àng   mòe=ńd'è   t'òng   móe=rás**
      FOC   how   1PL.S=exist(PROG)   PROG   1PL.S=become.thin(PL)
      yì (. . .)?
      PROG
      'How (come that) we are getting lean (. . .)?'   (F00CFUAN)

    b. **Réép   múk   d'è   t'óng   d'óng   yì.**
      girl(SG)   3SG.POSS   exist(PROG)   PROG   be.good(SG)   PROG
      'Her girl is always beautiful.'   (A-25/05/01)

Another difference surfaces in the resultative aspect construction. In Goemai, the resultative only ever occurs with state-change verbs, but never with stative verbs. With state-change verbs, it is sensitive to different phases of the event, thus distinguishing between inchoative and non-inchoative state-change verbs. For inchoative verbs (such as **f'yér** 'become big' in 2a), it expresses the completion of the inchoative phase, and thus the continuation of the state. For other state-change verbs (such as **múút** 'die' in 2b), it expresses the endstate that results after the completion of the state change.

(2) a. **Là   yóe   f'yér   kàm   b'è!**
      child(SG)   2SGF.POSS   become.big(SG)   RESULT   EMPH
      'Your child is really growing!'   (overheard utterance, A-11/02/00)

    b. **Màt=hòk   múút   kàm.**
      woman(SG)=DEF   die(SG)   RESULT
      'The woman has died.'   (A-22/05/04)

Furthermore, the two verb classes pattern differently when unmarked for tense and aspect: inchoative verbs receive a default past tense or perfective aspect interpretation (as **b'áng** 'has become red' in 3a), while stative verbs receive a

default present tense or stative interpretation (as **d'óng** 'is good' in 3b). This phenomenon is well attested in African linguistics, ever since Welmers (1973: 346–347) has noted that the interpretation of unmarked verb forms in Niger-Congo languages is sensitive to their lexical aspect.

(3) a. **Kàt   là   góe=ná   lá-t'éng=hók   b'áng**
         maybe   COND   2SGM.S=see   child(SG):GEN-tree=DEF   become.red
         ńt'ìt (. . .).
         well
         'If you see (that) the fruit has become thoroughly red (. . .).'
         (P00DCROPS)

    b. **Nyègòesék   dái,   bì   sh'è   d'óng   p'ùùr.**
         because.of.this   indeed   thing   learn/teach   be.good(SG)   very
         'Because of this, indeed, learning is very good.'   (C00ANYOUTH1)

Crucially, the two classes differ in that unmarked inchoative verbs cannot be used in reference to a state. The contexts in (3a) and (3b) above suggest, respectively, a completed state change and a state. These suggestions are confirmed by more experimental data that was collected with the help of visual stimuli. For example, the speakers were shown contrastive video clips of water turning red through the addition of hibiscus (creating a popular type of tea). In one clip, they witnessed a completed state change (a woman passes after the water has finished turning red), and they described this event with the verb unmarked for tense and aspect (as in 4a). And in another clip, they saw a state (a woman passes a glass of red water, which does not change color), and they responded with the nominalized verb in the equational construction (as in 4b). All speakers agreed that it would be ungrammatical to use the unmarked verb in this stative context. Conversely, a stative verb such as **d'óng** 'be good' occurs underived in the stative context of (4b), but has to be formally derived to be able to occur in the completed state-change context of (4a).

(4) a. **Hàngòed'è=hòk   b'áng.**
         water=DEF   become.red
         'The water has turned red.'   (B01ADPPROG-040)

    b. **Hàngòed'è=hòk   à   gòe-b'áng.**
         water=DEF   FOC   NMLZ(SG)-become.red
         'The water is red (lit. a red one).'   (B01NDPPROG-067)

The kind of evidence illustrated with the help of examples (4a) and (4b) is very important: without this evidence, it would be difficult to prove that verbs such as **b'áng** 'become red' are inchoative (and not stative or ambiguous stative-inchoative). The reason for this difficulty is that the corpus of natural texts does not contain enough information about the real-world scenarios that can and cannot be described by an expression. In the absence of such informa-

tion, it is impossible to know whether **b'áng** 'red' refers to a state change or a state: the discourse context may be suggestive of a state-change reading (as in 3a), but it does not prove it. This situation is further complicated by the fact that speakers tend to give stative translations whenever inchoative verbs are unmarked for tense and aspect. Indeed, the collection of natural texts contains very many instances where a sentence such as (4a) receives a spontaneous translation such as 'the water *is* red'. But when discussing these translations with the speakers, they invariably comment that such events took place in the past. Interestingly, their metalinguistic comments mirror a discussion in the typological literature on aspect (Bybee 1994; Comrie 1976: 82–84): the stative translation of unmarked inchoative verbs follows from a pragmatic implicature — the assumption that the state-change has been completed, and that the resulting state now obtains (e.g., if something *has become* red, then it *is* now red). That is, the translation captures contextual pragmatic information that may obscure the invariant meaning of the lexical item.

This completed state-change reading is especially prominent in the environment of ideophones. Such ideophones always co-occur with specific verbs, e.g., the ideophone **wùwák** 'bright red' in (5) is restricted to the verb **b'áng** 'become red'. Goemai ideophones specify a degree of change and thus serve lexical aspect functions: their presence always implicates an accomplished state-change resulting in the state expressed by the ideophone. As a consequence, speakers invariably translate the corresponding utterances as stative. Given this function, it is not surprising that ideophones are absent with stative verbs (including stative property verbs such as **d'óng** 'be good'): stative verbs code a state — not a state change — and hence no degree of change can be predicated of them.

(5) **Yìt   sh'él   múk   b'áng   wùwák.**
surface:GEN   wound   3SG.POSS   become.red   bright.red[IDEOPH]
'His wound has become bright red (= is bright red).'   (A-22/05/04)

Finally, inchoative property verbs (like many other state-change verbs in Goemai) can appear underived in the transitive construction with a causative reading (as **núng** 'become/make ready' in 6). The stative property verbs, by contrast, cannot occur in this type of construction. From a typological perspective, this distribution is not unexpected: Talmy (1985) suggests that languages may allow for the conflation of stative and inchoative within a single verb, or of inchoative and causative (as Goemai **núng** 'become/make ready'), or of stative, inchoative and causative — but not of stative and causative alone.

(6) **Mùèp   núng   jì.**
3PL.S   make.ready(SG)   SGM.LOG.SP.O
'(He$_1$ said) they made him$_1$ wise (lit. they readied him).'   (D04NSEM5)

The five properties discussed above reliably distinguish inchoative from stative property-denoting verbs in Goemai: they pattern differently in the various contexts, thus reflecting their different lexical aspect.

The basic lexical aspect of a verb can only by changed by means of derivational mechanisms. Most of these mechanisms serve to create stative expressions from inchoative verbs. This includes especially the nominalization of verbs by means of the prefixes **gòe-** (SG) and **mòe-** (PL). These nominalized verbs then occur as complements in equational clauses: a verbless clause (as in 4b above), or a verbal clause (as in 7a). Less commonly, Goemai uses partial reduplication to create adverbs, which then occur as complements in equational clauses (as in 7b). Finally, Goemai makes use of a distinct type of serial verb construction,[6] termed configurational serial verb construction. This construction is formed by means of a state-change verb (e.g., an inchoative property-denoting verb) plus a stative-locative or existential verb (as in 7c).

(7) a. **D'è   góe-b'áng.**
          exist NMLZ(SG)-become.red
          '(It) exists (as) a red one (= it is red).'   (C00ANDIALECT3)

     b. **Yít   múk   t'óng   b'ák   b'òe-b'áng   góe**
          eye/face 3SG.POSS sit(SG)   here   REDUP-become.red   COMIT
          hààm.
          water
          'His face here is (lit. sits) red with drink.'   (A-22/05/04)

     c. **Hàngòed'è=hòk b'áng   d'è   ńd'ùùn   cup.**
          water=DEF   become.red exist   INSIDE:GEN cup
          'The water exists (= is) red in the cup.'   (A-15/06/01)

All derived expressions in (7) above are stative expressions, i.e., their morphosyntactic distribution and interpretation mirrors that of underived stative verbs.

Conversely, Goemai has only one mechanism for creating inchoative expressions from stative verbs: the inchoative serial verb construction. In this construction, property-denoting stative verbs co-occur with the motion verb **bá** (SG) ~ **búk** (PL) 'return' (as in 8a). This construction is an inchoative expression and can, for example, be marked for progressive aspect. In this case, it receives the expected on-going state-change interpretation (as in 8b).

(8) a. **Bì   bá   nyán   k'á   nóe   nd'àsóenòe.**
          thing return(SG) be.bad HEAD(SG) 1SG.POSS now
          'The thing has turned bad for me now.'   (N00EFRIENDS2)

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6. Goemai has four distinct serial verb constructions that differ formally and semantically from each other (see Hellwig 2006 for details).

b. **Rèép   múk   bá   d'è   t'óng   d'óng**
   girl(SG) 3SG.POSS return(SG) exist(PROG) PROG   be.good(SG)
   yì.
   PROG
   'Her girl is turning more beautiful.'   (A-25/05/04)

Goemai thus has a number of mechanisms (changing the word class to noun or adverb, using specific serial verb constructions) that serve to create stative and inchoative expressions. These mechanisms allow basic inchoative verbs to occur in reference to a state, and basic stative verbs to occur in reference to a state change.

3.1.3. Property verbs and the verbal lexicon.   The preceding sections have outlined the lexicalization of property concepts in Goemai. It was shown that they are predominantly lexicalized in verbs, mostly in inchoative verbs. This section now takes a step back and relates property verbs to the Goemai verbal lexicon as a whole.

The property concepts discussed in this paper are those proposed by Dixon (1982): dimension, physical property, color, human propensity, age, value, and speed. However, there is no language-internal reason to single out these concepts, or to establish a lexical (sub)class of property-denoting or adjectival verbs for Goemai. In fact, they pattern just like any other inchoative or stative verb in the language. This includes contexts that cross-linguistically often serve to establish an adjectival (sub)class (Dixon and Aikhenvald 2004: 1–48): attributive contexts and comparative constructions.

As for attributive contexts, Goemai has a modifying construction that derives modifiers from other word classes by means of the prefixes **gòe-** (SG) and **mòe-** (PL). But there are no restrictions on the kinds of expressions that can enter this construction: property expressions (as **f'yér** 'become big' in 9a), other state-change verbs (as **k'óón** 'become face down' in 9b), and even entire verb phrases (as **yát nshì** 'trade honey' in 9c).

(9) a. **Gòe=nà   pín   gòe-f'yér**
        2SGM.S=see   hut   NMLZ(SG)-become.big(SG)
        ń-d'é-ńnòe=hòe=à?
        ADVZ-CL:exist-DEM.PROX=exactly=INTERR
        'Do you see this big hut?'   (M00ANDISPOS11)
     b. **shér   gòe-k'óón   wùm   n-yíl.**
        potsherd NMLZ(SG)-become.face.down(SG) bury   LOC-ground
        '(. . .) the face-down potsherd got buried in the ground.'
        (M00ANDISPOS8)
     c. **Yóng gùrùm mòe-yát   nshì   díp.**
        call   person NMLZ(PL)-advertize bee/honey   all
        '(He) called all the honey-trading people.'   (F99AMOESHAAR)

And as for comparative and superlative contexts, Goemai forms them by means of a serial verb construction containing the verb **mà** 'surpass'. Again, there are no restrictions on the kinds of verbs that can enter this construction, including property verbs (as **f'yér** 'become big' in 10a), but also all other kinds of verbs (as **màar** 'farm' in 10b).

(10)   a.   **Ní   gòebí   zwám=hòe,   àmmá   f'yér   mà**
              3SG.I   AS.IF   viper=exactly   but   become.big(SG)   surpass
              zwám.
              viper
              'It (is) like the viper, but (it) is bigger than the viper.'   (D04AWO)

       b.   **ńdòe̱=gùrùm   gòe-màar   mà   mu̱ép   yít   d'è**
              SPEC=person   NMLZ(SG)-farm   surpass   3PL.O   again   exist
              bá.
              NEG
              '(In the land of the Goemai) there is no-one who farms better than them again.'   (H99BTARIHI)

In fact, the lexical aspect diagnostics illustrated in section 3.1.2 do not only apply to property verbs. The inchoative property verbs pattern like other inchoative verbs, including especially verbs of position (e.g., **k'óón** 'become face down') and motion (e.g., **sù** 'start to run'). Similarly, stative property verbs pattern like other stative verbs, including especially verbs of internal experience (e.g., **lúút** 'be afraid') and location and existence (e.g., **t'óng** 'sit').

Interestingly, the findings emerging from the study of property concepts can be generalized to the verbal lexicon as a whole: Goemai predominantly lexicalizes verbal concepts as state-change verbs, not as statives. There are exceptionally few stative verbs in the language. And this includes lexical fields that are cross-linguistically often coded as statives, e.g., verbs of cognition such as **màn** 'get to know' or **b'óót** 'gain experience, get to be able'. This preference for state-change verbs is typologically unusual, but its origins are unclear: it could reflect an inherited Chadic pattern, a contact-induced change or a language-internal innovation. The reason for this uncertainty is an absence of studies on lexical aspect in Chadic and neighboring languages (with the notable exception of Abdoulaye 1992 on Hausa), and the resulting scarcity of comparative data. This scarcity of data is also the reason why this paper restricts itself to the limited field of property concepts: every grammar discusses such concepts, and it is thus possible to compare Goemai to related and non-related languages.

3.2.   *Jos Plateau*

Languages of the southern Jos Plateau tend to have a handful of true adjectives, but then lexicalize the majority of property concepts in verbs. This much is

undisputed. However, further comparisons face a major methodological diffi-culty: the question of how to determine the lexical aspect of these verbs. Authors usually gloss them as stative, but do not discuss their lexical aspect in detail. Those who offer some discussion, generally do not present the reasons for their stative analysis. In particular, the morphosyntactic distribution of stative verbs (as compared to non-stative verbs) is only rarely discussed. In this context, it is relevant to recall the discussion of examples (3) and (4) in section 3.1.2 above: recall that speakers tend to offer a contextual stative translation of inchoative verbs whenever they are unmarked for tense and aspect. That is, their transla-tions tend to reflect the fact that if something *has become* red, then it is conceiv-able that it *is* now red. Given this well-known phenomenon, it is not possible to prove conclusively on the basis of translations whether the relevant verbs are stative or inchoative. In the case of Goemai, proof was provided by two types of evidence. First, evidence from the use of visual stimuli that provided access to real-world contexts (see example 4); and second, evidence from the distribution of verbs in different morphosyntactic contexts (see table 1). The first kind of evidence is not available for this comparison, but the second kind is: the pub-lished grammars, dictionaries and text collections contain very many examples of property verbs in different contexts. This section focuses on examining their distribution across these contexts. When reading this section, one should bear in mind that this is an exercise in re-analyzing available, second-hand, data. It is entirely possible that this re-analysis is mistaken. However, I believe that the available data does point towards a common state-change semantics in property verbs. Minimally, it casts doubt on a stative analysis, suggesting that at least some of these verbs are — additionally or exclusively — inchoative.

This section is structured as follows. Section 3.2.1 focuses on the closest relatives of Goemai, the languages of the Angas-Goemai group. Section 3.2.2 then turns to the non-related Jukunoid languages — because all available historical sources suggest that speakers of Goemai were in close contact with speakers of Jukunoid. Finally, section 3.2.3 very briefly outlines the informa-tion from other potentially relevant languages: the Chadic languages of the Ron group (West Chadic A), and the Benue-Congo languages Tarok (Tarokoid) and Fyem (Southeastern Plateau).

3.2.1. Angas-Goemai group languages.   The lexicalization patterns outlined in section 3.1 are probably shared among all the languages of the Angas-Goemai group. Unfortunately, there is no information on the more closely related languages of the southern branch, but we do have excellent information on the more distantly related languages of the northern branch: Angas (Foulkes 1915; Burquest 1973; Gochal 1994; Jungraithmayr 1964), Mwaghavul (Jun-graithmayr 1963a), Mupun (Frajzyngier 1991; 1993) and Mushere (Jungraith-mayr and Diyakal 2008).

Some sources analyze the relevant expressions as either adjectives or nouns. There is, however, considerable evidence that such analyses are influenced by the word class of their English and Hausa translation equivalents (Hellwig, 2010). Indeed, the text corpora of all sources contain abundant examples of property expressions in verbal contexts, e.g., with tense and aspect marking (as with continuous aspect in 11a), or with the subject pronouns of verbal sentences (as with the logophoric pronoun **gwār** in 11b).

(11) a. **Tār   pǒ   wărn   pǒ   wărn.**   [Angas]
            moon   CONT   big   CONT   big
            'The moon is waxing.'   (Foulkes 1915: 301)

     b. **Lǐ   tě,   "gwār   kǔn (. . .)."**   [Angas]
            say   that   SGM.LOG.AD.S   strong
            '[He said] "you are the strongest (. . .)."'   (Foulkes 1915: 116)

Most authors therefore explicitly analyze such expressions as verbs. Frajzyngier (1993: 66) remarks for Mupun that "adjectival verbs constitute a subset of verbs." And Jungraithmayr and Diyakal (2008: 29) comment for Mushere that there is "no separate morphological class of adjectives" and that "they are derived from a verbal or a verbonominal base."

The lexical aspect and morphosyntactic distribution of these verbs is not explicitly discussed, but the authors implicitly assume a stative analysis in that they mostly opt for stative glosses. They only occasionally give additional inchoative glosses, e.g., Angas **son** (SG) ~ **shual** (PL) 'to be/grow tall' (Gochal 1994: 74), or Mushere **pyáa** 'to be(come) white' (Jungraithmayr and Diyakal 2008: 277). Interestingly, however, all sources contain frequent examples like the following, where context and translation suggest a state-change meaning.

(12) a. . . . **kó   mwá   pán   'gyăm   kó   kun   ɗə.**   [Angas]
              CONJ   3PL.IPF   keep   child   CONJ   big   there
            '(. . .) und sie zogen das Kind auf ('und es wurde groß').'
            = '(. . .) and they raised the child ('and he became big').'
            (Jungraithmayr 1964: 32)

     b. **paat   nə   loom**   [Mupun]
            olive   DEF   flexible/soft/weak
            'the olive(s) shrank'   (Frajzyngier 1991: 34)

     c. **Féel   ɗál   ngwóm,   ɓu   pee**   [Mushere]
            gullet   swallow.VN   food   then   place
            ràp.
            be.dark.VN
            'A gullet swallows food, then the place becomes dark.'   (Jungraithmayr and Diyakal 2008: 137)

Frequently, the relevant expressions are marked for some form of perfect, perfective or completive aspect. This aspectual marking suggests that the verbs code a state change, and that the grammatical aspect indicates the completion of this state change — thus triggering a stative translation (as in 13a). Furthermore, there are examples that are marked for some form of continuative or progressive aspect and that then receive an on-going state-change reading (as in 11a above and 13b below). That is, they occur in aspectual contexts that are incompatible with a stative semantics.

(13) a. **"Kafwăn 'hằắ ɓɛ laŋkaŋ funu đà** [Angas]
rabbit ?? then groundnut 1PL.POSS DET
kɔ̀ nùŋ kàa?"
PRF ripe NEG:INTERR
' "Nun, Hase, sind unsere Erdnüsse nicht schon reif?" '
= ' "Now, rabbit, aren't our groundnuts ripe yet?" ' (Jungraithmayr 1964: 114)

b. **mwá née nyi pɔ̀ lóom pɔ̀ lóom** [Angas]
3PL.IPF see 3SG.CONT CONT thin CONT thin
'(. . .) (sie) bemerkten (. . .), dass sie dünner und dünner wurde.'
= '(. . .) (they) saw (. . .) that she became thinner and thinner.' (Jungraithmayr 1964: 117)

Moreover, the verbs have additional causative uses, such as Angas **nùŋ** 'ripe' (intransitive in 13a, transitive in 14a) or Mushere **ràp** 'dark, black' (intransitive in 12c, transitive in 14b).

(14) a. **'Àm là-lá kɔ̀ nùŋ ɣərəm kà.** [Angas]
water donated FUT ripe beans NEG
'Mit geschenktem Wasser kann man Bohnen nicht gar machen.'
= 'Donated water doesn't cause the beans to be cooked (lit. doesn't ripen the beans).' (Jungraithmayr 1964: 34)

b. **đekel ràp lú mìni mû.** [Mushere]
smoke blacken.VN house 3SG.POSS NEG
'(. . .) smoke will not blacken her house.' (Jungraithmayr and Diyakal 2008: 187)

The similarities to Goemai are not restricted to the lexicalization patterns, but also extend to the derivational possibilities. All the languages have mechanisms for deriving expressions that occur as complements of verbless equational clauses, which are analyzed as stative clauses in the respective grammars. These mechanisms are similar to the ones attested in Goemai. First, derivation is achieved by means of a morpheme that is glossed 'relativizer' (as in 15a and 15b). In some languages, this morpheme is even cognate to either

Goemai **gòe-** (SG) (as **kù** in 15b) or **mòe-** (PL). The categorical status of the derived forms is not always discussed, but indications are that they constitute nominalized elements, like in Goemai. For example, Frajzyngier (1993: 254) says for Mupun that "(a)n inherently verbal form may occur in an equational sentence only after it has been nominalized, which in most cases means after it is preceded by the relative marker [. . .]." Second, another common derivational mechanism is reduplication (as in 15c). Again, the categorical status is not entirely clear, but indications are that the forms constitute some type of adverb. For example, Gochal (1994: 76) explicitly discusses full reduplication as a means to form adverbs in Angas. And Frajzyngier (1993: 69–73) describes partial reduplication in Mupun, saying that it creates a new lexical class that is different from that of verbs and nouns.

(15) a. **nwo mo a ɗe bis kə́də́ŋ**   [Mupun]
      snake PL COP REL bad all
      'all snakes are bad'   (Frajzyngier 1993: 254)

   b. **Wòo ɗǐ làa njép móp a**   [Mushere]
      snake can deliver children PL be(COP)
      kù ˈseen.
      REL long
      'A snake delivers long children (lit. (which) are long).'
      (Jungraithmayr and Diyakal 2008: 186)

   c. **tom nyi net-net**   [Angas]
      blood 3SG REDUP-red
      'blood is red'   (Gochal 1994: 80)

The examples above illustrate the most common stativizing devices within the Angas-Goemai group. Goemai additionally uses locative and existential verbs to create stative expressions (illustrated in 7a and 7c above). It is not clear if other Angas-Goemai group languages make use of similar constructions. The text corpora contain examples that look similar to the Goemai examples: a locative verb with an adverbialized complement (as 'stand strongly' in 16a) or a nominalized complement (as 'be/become a white one' in 16b), or a locative verb as the first of two verbs in a series (as 'sit careful' in 16c). However, there are no explicit discussions of these forms and their semantics, and it is thus impossible to say whether the similarities to Goemai are more than superficial similarities.

(16) a. **ɗǐ ɗer ɓálɓál pèe cen kèlèng.**   [Mushere]
      can stand strong place drive.VN hawk
      '(. . .) should be prepared to drive away hawks (lit. should stand
      strongly).'   (Jungraithmayr and Diyakal 2008: 81)

b. **Tìp vel dí dee kû pyaa mû.**   [Mushere]
    black two can become REL white NEG
    'Two black things cannot be white (lit. be/become a white one).'
    (Jungraithmayr and Diyakal 2008: 139 and 251)

c. **mwá tɔŋ táp kə-nə.**   [Angas]
    3pl.IPF sit be.careful PREP-3SG
    '(. . .) sie (möchten hingehen und) darüber wachen.'
    = '(. . .) they (should go and) look after it (lit. sit careful).'   (Jungraithmayr 1964: 115)

To summarize, the data suggests that the predominant lexicalization of property concepts in inchoative verbs is not restricted to Goemai, but also attested in the northern Angas-Goemai branch. In light of the above evidence, it is very likely that at least some property verbs — if not most — express inchoative lexical aspect, not stative. The languages also show formal similarities in their derivational mechanisms: the use of nominalized and reduplicated forms in equational clauses. The main uncertainty concerns the use of locative verbs to derive stative expressions: there are indications that the languages share this pattern, too, but there is too little information to conclusively prove this hypothesis.

3.2.2. Jukunoid languages.   This section now turns to the lexicalization of property concepts in the Jukunoid languages. Different from the Angas-Goemai group of languages, these language are not related to Goemai. Historical sources (see section 2) show that speakers of Goemai were in close contact with speakers of Jukunoid languages. And given their traditions of origin, it is even possible that speakers of Jukunoid at some point shifted towards Goemai. Of particular interest are those varieties that are spoken at the northern periphery of the present-day Jukunoid area, in geographical proximity to the Goemai. This includes especially the Central Jukunoid languages Wapha (Wase Tofa), Wapan of Awe, and Hone.

For Hone, there exists an excellent reference grammar, which shows that the language has only very few true adjectives, which — different from Goemai — include the core color terms **àpɔ̄rzèmē** 'black', **àmə̀ktìr** 'white' and **àgwɔ̀nʃééʃéé** 'red'; the majority of property concepts, however, are lexicalized in verbs (Storch 1999: 117–119, 160–161, 242–244). These verbs are usually labeled stative verbs, but there are also indications that point towards a state-change semantics. A first indication is an occasional variation in the glossing practice. For example, the derived participle **àhóyē** is glossed alternatively as 'groß seiend (= being big)' (thus deriving from a verb **hóy** 'be big') (Storch 1999: 139) and 'gewachsen (= grown)' (thus deriving from a verb **hóy** 'grow, become big') (Storch 1999: 115). Or the verb **tùù** 'heiß sein (= be hot)' appears

in the tonally-marked imperative as **tūū kyɛ́pkyɛ́p** 'werde schnell heiß! (= become hot quickly!)' (Storch 1999: 201).

Another indication is the occurrence of such verbs in compounds (as in 17a) and aspectual constructions (as in 17b) that originated in serial verb constructions with 'finish' as their second member. The glosses and discussions suggest that these verbs have a basic state-change meaning, and that the construction expresses the completion of this state change. Hence, they receive either a contextual stative translation (as in 17a) or a completed state-change translation (as in 17b). There is even an indication that at least one of the true adjectives, the color term **àpə̄rzèmē** 'black', is derived from a state-change verb plus the verb 'finish': there still exists the verbal form **pə̄r zə̀k** 'become black', which is formed on the basis of a verb **pə̄r** '(become?) black' plus the serial verb **zə̀(k)** 'finish (completive)' (Storch 1999: 117–118).

(17) a. ** n̄-Ø-ní**   **-kə̀n**   [Hone]
          NEUTRAL.SUBJECT.1SG-AORIST-become.tired   -finish
          'ich bin müde'
          = 'I am tired'   (Storch 1999: 249)

      b. **kū-Ø-hóy-zə̀**   [Hone]
          NEUTRAL.SUBJECT.3SG-AORIST-grow-finish[COMPLETIVE]
          'er/sie ist groß geworden'
          = 'he/she has grown big'   (Storch 1999: 172)

Finally, property verbs preferably occur in the unmarked aorist, which expresses "ein perfektives Ereignis [. . .], das unmittelbar vor dem Zeitpunkt der Äußerung oder zu einem bestimmten Zeitpunkt in der Vergangenheit stattgefunden hat (= a perfective event, which occurred immediately before the time of the utterance or at a specific point of time in the past)" (Storch 1999: 194). Verbs that are analyzed as stative receive a present or past tense stative translation in this context. As discussed at the beginning of section 3.2, it is possible that this stative translation is a pragmatic implicature, i.e., that it reflects contextual factors. It is not clear if this alternative analysis also holds true for Hone, but the following example is suggestive in this respect. The example is taken from the text appendix in Storch (1999: 403–407), and it features two verbs that are explicitly analyzed as stative in other parts of the grammar: **tàk** 'naß sein (= be wet)' (1999: 119) and **ŋwùm** 'trocken sein (= be dry)' (1999: 119). The remaining verb is **zə̀n** '(be?) bitter', which is not attested elsewhere in the grammar. These verbs occur in a text that describes the brewing of local beer from millet (repeated in extracts in 18). In this process, the millet undergoes various state changes (becoming wet, dry and finally bitter). Given this context, it is possible that the corresponding verbs also express the state change, not the state. If this is true, then the suggested stative translation

is only a contextual translation that arises because of the assumption that the state change has been completed.

(18) . . . **kɔ̄-máá-tàk (. . .).** [Hone]
        NEUTRAL.SUBJECT.3SG.NEUTER.AORIST-COND-be.wet
    '(. . .) und wenn sie durchweicht war (. . .).'
    = '(. . .) and when it was wet (. . .).'
    . . . **kɔ̄-máá-ŋwúŋ.**
        NEUTRAL.SUBJECT.3SG.NEUTER.AORIST-COND-be.dry
    '(. . .) bis es trocken war.'
    = '(. . .) until it was dry.'
    Kɔ̄-zɔ̀n   **rí (. . .).**
    NEUTRAL.SUBJECT.3SG.NEUTER.AORIST-be.bitter   already
    'Es ist nun schon bitter (. . .).'
    = 'It is now bitter (. . .).'   (Storch 1999: 406)

This inchoative analysis is supported by the existence of constructions such as (19a) and (19b), which are attested in Wapha, Wapan and Hone, but apparently not in those Central Jukunoid varieties that are spoken further away from the Goemai-speaking area (Storch, p.c.): the property verbs refer to a completed state change when marked for perfective aspect, but to an on-going state change when marked for imperfective aspect.

(19) a. **á-gbán**   **káŋ** [Wapha]
      NMLZ-be(come).red:PFV   become:PFV
      'It is red.' (Storch, p.c.)
   b. **gî**   **kàŋ**   **à-ŋ́gbàn** [Wapha]
      3SG.S become:IPFV NMLZ-become.red:IPFV
      'It is becoming red.' (Storch, p.c.)

Further similarities are attested in another Central Jukunoid language, Takum Jukun. Welmers (1949) discusses the use of verbs in contexts where English would use adjectives. He explicitly refers to their state-change nature, saying that they occur in "expressions of complete and incomplete action" (1949: 48), and observing that "constructions expressing completed action may sometimes be translated by the English 'present'" (1949: 47), as in (20).

(20) **zape**   **fã**   **rȧ** [Takum]
    water become.hot ASPECT
    'The water is hot (has become hot and is still hot).' (Welmers 1949: 37, 47)

The evidence for Wukari Jukun is a bit more mixed. Shimizu (1980a: 158–159, 182–184, 200–214) remarks that the language uses verbs to express property concepts. Most of these verbs seem to simultaneously lexicalize state,

state change and causation. For example, he (1980a: 150) glosses **gon** as 'be long, become long, lengthen'. He then goes on to argue that these verbs overwhelmingly occur intransitively followed by degree adverbs (as in 21a) — even in the absence of such adverbs, the default interpretation is still one of emphasis. This observation recalls the discussion above on Goemai ideophones (see example 5; see also 26a and 26b below): in Goemai, these ideophones predicate a degree of change and serve to emphasize the completed state change, thus triggering a stative interpretation. It is possible that a similar process is taking place in Wukari, too. In addition to their basic form, many verbs have two types of reduplicated forms (that are distinguished tonally): one form receives a stative interpretation (as in 21b), and another receives a state-change interpretation (as in 21c). It thus seems that both stative and state-change forms are overtly derived by some form of reduplication. This differs from Goemai, where only the stative forms are derived.

(21)　a.　**atukpa　rá　pè　　(ka cin)**　　　　　　　　　　[Wukari]
　　　　　cloth　　the　black　(very)
　　　　　'the cloth is very black'　(Shimizu 1980a: 209)

　　　b.　**atukpa　rá　pèpè**　　　　　　　　　　　　　　[Wukari]
　　　　　cloth　　the　REDUP:black
　　　　　'the cloth is black'　(Shimizu 1980a: 208)

　　　c.　**atukpa　rá　pèpê**　　　　　　　　　　　　　　[Wukari]
　　　　　cloth　　the　REDUP:black
　　　　　'the cloth has become black'　(Shimizu 1980a: 211)

Interestingly, Wukari also seems to have a construction where property verbs combine with a (presumably) stative existential or locative verb in order to express a state (as in 22).

(22)　**be　na　bé　rí-to**　　　　　　　　　　　　　　　　[Wukari]
　　　3PL　be　3PL　exist-become.cool
　　　'they are well'　(Shimizu 1980b: 232)

The languages above all belong to the Central Jukunoid branch. In addition, there are languages from the Yukuben-Kuteb branch, which are spoken further south of the Goemai-speaking area. The discussion below shows that there are a large number of interesting similarities, but that there is also one crucial difference. All information comes from Kuteb.

In his grammar, Koops (2009: 81) argues that "many quality ideas such as color, size, and physical dimension [. . .] are expressed by stative verbs in Kuteb." He shows that present-day adjectives are an emerging category that was diachronically derived from the relativizer **tī** plus a stative verb. In many cases, both the original verb (as in 23a) and the derived adjective (as in 23b) co-exist. The two examples below are reminiscent of the distribution of Goe-

mai expressions in verbal and verbless clauses (see the discussion of examples 4a and 4b). However, it is not known if there is a similar meaning difference between (23a) and (23b).

(23) a. **Mbapkú-m   byāen.**   [Kuteb]
          dog-1SG   red[V]
          'My dog is red.'   (Koops, 2009: 155)

      b. **Mbapkú-m   si   tībyāen.**   [Kuteb]
          dog-1SG   is   red[ADJ]
          'My dog is red.'   (Koops, 2009: 155)

Koops analyzes the Kuteb property verbs as stative verbs, and he presents a very good argument for his analysis: these verbs cannot occur in the progressive aspect. That is, a sentence such as (24a) is ungrammatical. To occur in the progressive construction, these verbs need to be reduplicated first (as in 24b). Koops (2009: 145) suggests that these reduplicated forms express an on-going action, but he also says that "[t]he significance and distribution of the reduplicated forms needs further research."

(24) a. *****Afu   kú   wáe.**   [Kuteb]
          2SG   IPFV   tall
          *'You are talling.'   (Koops, 2009: 144)

      b. **Ayī   kú   bībyāen.**   [Kuteb]
          3   IPFV   REDUP:red
          'It is getting red.'   (Koops, 2009: 145)

The data in (24a) and (24b) thus point towards the opposite situation from Goemai: the basic verbs are stative and the derived (i.e., reduplicated) forms are inchoative. Despite this seemingly clear situation, there remain a number of open questions, which are outlined below.

First, stative verbs can occur with overt perfective aspect marking, in which case they indicate the completion of the state change (as in 25).

(25) **Ayī   byāen   pú-yī.**   [Kuteb]
      3   red   PFV-3
      'It has become red.'   (Koops, 2009: 145)

Second, these verbs very often occur with degree adverbs (such as **tímambē** 'very much' in 26a) and with ideophones (as in 26b). This is reminiscent of the remarks about the Goemai ideophones (see example 5): they express the completion of a state change, and hence they often receive a contextual stative translation.

(26) a. **Umbae   ne   wáe   tímambē.**   [Kuteb]
          child   DEM   tall   very
          'This child is very tall.'   (Koops, 2009: 146)

b.   **Awāen   tumátur-fu   byāen   nwámime.**   [Kuteb]
fruit   tomato-2SG   red   very.red[IDEOPH]
'Your tomatoes are very, very red.'   (Koops, 2009: 75)

And third, at least some of these verbs occur both intransitively (as in 27a) and transitively (as in 27b). Recall that languages tend not to allow for the conflation of stative and causative meanings within a single verb (without also including inchoative) (Talmy 1985).

(27)   a.   **Kitub   tsēn.**   [Kuteb]
cotton   white[STATIVE]
'Cotton is white.'   (Koops, 2009: 70)
b.   **Awū   tsēn   m   utōb.**   [Kuteb]
3SG   white[TRANSITIVE]   1SG   heart
'He made me happy (lit. whitened the heart).'   (Koops, 2009: 70)

It is not clear how to interpret the above data. On the one hand, there are similarities to Goemai that are suggestive of a state-change semantics: the parallel existence of two predicative structures (in 23), the state-change reading in the perfective (in 25), the prevalence of degree adverbs and ideophones (in 26), and the existence of transitive uses (in 27). On the other hand, there remains the fact that the basic (i.e., non-reduplicated) verb cannot occur in the progressive aspect (in 24), and this behavior points towards a stative semantics. A reconciliation of these contradictory observations could be achieved if one assumes that the verbs are ambiguous between stative and state-change readings, with aspectual markers coercing specific readings. In this case, the unmarked verb would trigger a stative reading, and the perfective verb would trigger a completed state-change reading. Their non-occurrence in the imperfective would follow from the existence of reduplicated forms with an unambiguous on-going action semantics. From a pragmatic perspective, it would not be surprising that the existence of a dedicated form pre-empts the occurrence of another form. This alternative analysis would still allow us to differentiate between stative/inchoative property verbs, on the one hand, and non-stative/ non-inchoative (e.g., activity) verbs, on the other. From a lexical aspect perspective, it would not be surprising if they showed different morphosyntactic distributions. However, this alternative analysis is necessarily speculative, and for the moment, we can only state with certainty that there are the above superficial similarities — but not that they necessarily reflect the same lexicalization pattern.

To summarize, the data suggests that at least those Central Jukunoid languages that are spoken in the vicinity of the Goemai lexicalize property concepts in inchoative verbs (which may or may not have additional stative meanings). For the Yukuben-Kuteb branch, the evidence is more mixed, but at least

some indications point towards a state-change semantics. Notice that languages of this latter branch are spoken further south of the Jos Plateau, i.e., they may not constitute part of the *sprachbund*.

3.2.3.   Other languages of the southern Plateau: Ron, Tarok, Fyem.   In addition to Angas-Goemai and Jukunoid languages, there are a number of other related and non-related languages that are spoken in the wider vicinity of the Goemai. There is very little information available on the coding of property concepts in these languages, and this section therefore only presents a cursory overview.

The related languages are the Ron languages. At least two of the Ron languages, Ron of Bokkos (Jungraithmayr 1970) and Ron of Daffo (Jungraithmayr 1970; Seibert 1997), predominantly lexicalize property concepts in verbs. Again, indications are that these verbs have an inchoative semantics. Jungraithmayr (1970: 107, 170) suggests state-change glosses for the relevant verbs, e.g., **jijyu** (Ron of Bokkos) and **shaar** (Ron of Daffo) 'rot werden (= become red)'. For Ron of Daffo, Seibert (1997: 36–37) labels these verbs "Zustandsverben (= stative verbs)", but both his glossing practice and his explicit discussions make clear that he uses this term as a cover term for both stative and inchoative lexical aspect. Throughout his grammar, he uses stative and inchoative glosses interchangeably, compare, e.g., **shambar** 'weiß werden (= become white)' (1997: 27) and 'weiß sein (= be white)' (1997: 36), or **hyaw** 'schön sein/werden (= be/become beautiful)' (1997: 50). In fact, his discussions suggest that these verbs are basically inchoative, and that their stative glossing results from the interaction of the semantics of the verb with the semantics of tense and aspect marking. For example, he argues that the verbs receive a resultative or stative reading in the perfect, arguing that resultative "etw. geworden sein (= have become something)" results in stative "etw. sein (= be something)" (1997: 83), e.g., basic **hwer** 'become old' results in perfect **hwerán** '(be) old (= have become old)'. Similarly, all examples from natural texts reflect a state-change semantics, as in (28).

(28)   **hwèr   tí   shar   á fa   ham   háy.**   [Ron of Daffo]
　　　 red.earth   3F   become.red   on   water   head
　　　 '(. . .) und die Erde färbte die Wasseroberfläche rot.'
　　　 = '(. . .) and the earth colored the surface of the water red (lit. it became red on the surface of the water).'   (Seibert 1997: 141)

The non-related languages include especially Tarok (Tarokoid) and Fyem (Southeastern Plateau). Tarok (see Longtau 2009; Sibomana 1980: 204; 1981a: 29–30; 1981b: 242) predominantly lexicalizes property concepts in verbs, but there is little information about their lexical aspect. And Fyem (see Nettle

1998: 21–22, 45–47), too, lexicalizes these concepts mostly in verbs. The grammar analyzes them as stative verbs, but there are again indications that point towards a state-change semantics. In some cases, property verbs are even explicitly glossed as inchoative, e.g., **kʷík** 'get old' in (29a). Nettle (1998: 33) states that stative verbs preferably occur in the perfective aspect, where they receive a stative atemporal reading. Interestingly, he exemplifies this reading by means of the verb **kʷík** 'get old', which he analyzes as inchoative and which conveys its stative reading only in the free translation (see the first translation in 29a). Alternatively, it would be possible to argue that this example conveys a completed state change reading — and, indeed, it is translated as such in a different part of the grammar (see the second translation of 29a). Nettle presents a similar argument for verbs of cognition, which he also analyzes as stative (as in 29b). But interestingly he does not venture such an analysis for verbs such as **hú** 'die' (as in 29c), e.g., he does not suggest an analogous translation of 'the old dog *is* dead'. The fact that he does not do so makes me suspect that the lexical aspect of the English translation equivalents may have influenced the analysis: 'die' is a state-change verb in English (and perfective aspect conveys the expected completed state-change reading), but 'be old' and 'know' are stative verbs in English. Incidentally, recall that Goemai lexicalizes cognition verbs such as 'know' as state-change verbs, too.

(29) a. **has-moɟin taa   kʷík**   [Fyem]
          dog-DET   3SG.PFV get.old
          'The dog is old'   (Nettle 1998: 33)
          'The dog got old (i.e. it is an old dog)'   (Nettle 1998: 22)

      b. **náá   yí   ɗufál   ɓafʲem**   [Fyem]
          1SG.PFV know   language   Fyem
          'I know the language of the Fyem people'   (Nettle 1998: 34)

      c. **has kʷíkʲá-mo   taa   hú**   [Fyem]
          dog   get.old:ADJ-DET 3SG.PFV die
          'The old dog died'   (Nettle 1998: 22)

To summarize the discussion, it seems that the lexicalization of property concepts as inchoative verbs is a common characteristic of the entire southern part of the Jos Plateau *sprachbund*. It would be very interesting to include further languages in this comparison, especially the various subgroups of Plateau, but also Kainji and Jarawan Bantu, in order to establish the areal boundaries of this particular feature. For example, indications are that at least some Benue-Congo languages from the northern part of the *sprachbund* pursue a nominal coding strategy (see, e.g., Bouquiaux 1970: 177–178, 201–204, 251–253 for Birom).

4.   Conclusion: Property concepts and the Jos Plateau *sprachbund*

This paper has examined the lexicalization of property — or adjectival — concepts in related and non-related languages of the southern Jos Plateau *sprachbund*. The starting point for this investigation was an unusual lexicalization pattern in the West Chadic language Goemai (section 3.1): this language predominantly lexicalizes property concepts in inchoative verbs, which need to be overtly derived in order to refer to a state. From a West Chadic perspective, this pattern is unexpected: the present-day languages tend to code property concepts in nouns or noun-like adjectives. Based on our general knowledge of language contact in this area (section 2), this paper therefore set out to explore if the Goemai pattern is shared among the languages of the *sprachbund*. It has discussed the available data and analyses from Angas-Goemai group languages (i.e., the closest relatives of Goemai; section 3.2.1) as well as from Jukunoid languages (i.e., the most important contact languages; section 3.2.2); and it has sketched out the situation in Ron, Tarok and Fyem (i.e., the remaining languages of the southern Plateau; section 3.2.3).

The discussion in section 3 strongly suggests that the languages of the southern Jos Plateau *sprachbund* share the Goemai lexicalization pattern: with the exception of a handful of true adjectives, these languages lexicalize property concepts in verbs. The comparative difficulty has revolved mainly around determining the lexical aspect of these verbs. Most available sources have analyzed them implicitly or explicitly as stative verbs. Against these analyses, section 3 has advanced the hypothesis that these verbs are state-change verbs — minimally, that they are ambiguous between stative and inchoative meanings, and possibly, that they are unambiguous inchoative verbs (which can then receive contextual stative translations, especially if unmarked for tense and aspect). This hypothesis was put forward on the basis of the following observations: some authors use stative and inchoative glosses interchangeably, all grammars contain natural examples whose contexts and translations point towards state-change readings, some languages allow these verbs to occur in progressive contexts where they express an on-going state change, some languages use a form of perfective marking to express the completed state change, the relevant verbs are often used both intransitively and transitively (thus suggesting that the intransitive form has a state-change semantics, too), and, finally, there often exist derived (nominalized and adverbialized) forms that occur in stative contexts. All these observations suggest that the property-denoting verbs express a state change. For the moment, however, this analysis is only a hypothesis, since it rests on the re-interpretation of second-hand data. To prove this hypothesis, it would be necessary to gain systematic information about the real-world contexts that these expressions refer to (along the lines of the stimuli-based data introduced in section 3.1.2), as well as distributional

analyses that systematically compare the morphosyntax of property verbs with that of other verbs. With the exception of Kuteb, such information is not available. In the absence of such information, it is not possible to prove conclusively that the detected similarities are more than superficial similarities, and that they do, indeed, reflect a common underlying lexicalization pattern. However, I believe that the accumulated evidence of section 3 suggests that this hypothesis is, at the very least, a plausible hypothesis.

With due caution, we can therefore tentatively conclude that the languages of the southern Jos Plateau *sprachbund* share the predominant lexicalization of property concepts as state-change verbs. Given the use of nominal coding strategies in West Chadic languages outside the Jos Plateau, this pattern does not seem to be of Chadic origin. Niger-Congo languages, by contrast, are known for their use of inchoative property verbs (Stassen 1997: 470–485; Welmers 1973: 249–274, 336, 343–415), and it is thus possible that they constitute the source for this pattern in the Chadic languages of the Jos Plateau, too. In some cases, there are even similarities in form, which point to a lexical borrowing. Where known, these forms seem to be of a Benue-Congo origin. For example, the following forms reconstructed for northern Central Jukunoid (see Storch 1999: 374–378) have correspondences in Goemai: ***dor** 'enjoyable, sweet' (cf. Goemai **d'óór** 'be good, beautiful'), ***san** 'good' (cf. Goemai **sáán** 'become clear, bright'), ***gban** 'red' (cf. Goemai **b'áng** 'become red') and *-**pyi**- 'new' (cf. Goemai -**p'uóe** 'new'). However, in the majority of cases, the forms are not similar, i.e., the attested convergence resulted from the borrowing of patterns, not from the borrowing of forms.

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