On (ir)realis in Seenku (Mande, Burkina Faso)
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Abstract
This article explores the cyclic interplay of documentation and linguistic theory, focusing on the case study of Southern Seenku (Gbene Ku) verbal morphology. Southern Seenku is a hitherto undocumented Mande language of Burkina Faso. Preliminary fieldwork on the language revealed that all verbs have two stem forms, each used in a variety of constructions. I hypothesized that this division was based on an irrealis/realis distinction. Theoretical predictions of where realis and irrealis forms should be found were tested in subsequent fieldwork, and I show that the results of this fieldwork uphold the original analysis. Finally, I consider how the Seenku data patterns fit into the broader context of Mande verbal morphology and the typology of (ir)realis.

1 Introduction
The goals of this paper are twofold. The first is to present the first description of verbal morphology in the southern dialect of Seenku \[^2\text{See}n\text{ku}] (ISO 639-3 [sos], exonym Sembla/Sambla), a hitherto undescribed language of Burkina Faso. The second is to illustrate the symbiosis of documentation and linguistic theory, which form a cycle driving linguistics forward. This relationship can be schematized as in (1):

(1) \textit{The cyclic interplay of documentation and theory}

For the documentary linguist, the starting point is \textbf{fieldwork}, which generates as much \textbf{data} on the undescribed or endangered language as possible. The next step is developing \textbf{descriptive analyses} of the data, either focusing on particular areas (e.g. paradigms, phonemic analysis, characterizations of subordination strategies, etc.) or the language as a whole (in the case of a descriptive reference grammar). These descriptive analyses can then be checked against \textbf{linguistic theory}, or can be reanalyzed from a theoretical standpoint. If the theoretical analysis makes predictions about how the language behaves, then those predictions can be tested by more fieldwork to gather more data. One researcher may

\(^1\)I would like to thank the audience at ACAL 45, Jason Kandybowicz and Harold Torrence, as well as two anonymous reviewers for helpful feedback on this work. All remaining errors are my own. Many thanks to my patient consultants, Sy Clément Traoré, Gni Emma Traoré, and Gni Fatou Traoré, for the data and judgments. Financial support for this work comes from NSF grant BCS-1263150 and the Dartmouth College Burke Award.
traverse the entirety of the cycle, or data may pass from one specialist to another. In this paper, I present a case from my own work that has made the full cycle.

Before turning to the case study itself, I first clarify what I mean in this context by “description” versus “theory”, as these terms can have very different meanings depending on the tradition, framework, or even the author using them. In beginning a large-scale documentation project, I aim as much as possible to follow what Haspelmath (2010) refers to as “framework-free grammatical theory”, the aim of which is to approach the target language on its terms and let the data speak for themselves. Rather than approaching a language with the aim of identifying the constructions for various grammatical categories or phenomena determined a priori, I survey a broad range of general topics in elicitation and collect and transcribe texts; the data gathered in these methods are then described and categorized based on how they function in the context of the language as a whole. In practice, this method is quite similar to Dixon’s (2010) Basic Linguistic Theory, but in spirit, the two approaches differ in that Basic Linguistic Theory does aim to describe languages in terms of core concepts or widely-applicable descriptive tools, like those found in Payne (1997) or Shopen (2007), while framework-free grammatical theory may create new labels if the data motivate them.

As this article will demonstrate, an atheoretical approach to documentation and description does not preclude later theoretical treatments of the data in any number of frameworks, nor should theoretical or typological insights be completely ignored in data collection in the name of unbiased documentation. I view these enterprises as separate but symbiotic, each helping to enrich the other while remaining focused on different goals.

The case study in this article of documentary and theoretical symbiosis focuses on Seenku verbal morphology. In particular, I focus here on the existence of two stem forms for every verb, which are used in different constructions. This distinction came to my attention during my first dedicated field trip to Burkina Faso in 2013. During the five weeks of this trip, I aimed as much as possible to follow the atheoretical approach to fieldwork, surveying various broad topics through elicitation and pursuing Seenku constructions as they emerged. Work on the verbal system revealed these two stem forms, which I refer to as Stem 1 and Stem 2. These forms do not themselves create any TAM distinctions but instead are systematically found in various larger frames that encode these distinctions. Progressing from preliminary description to theoretical analysis, I investigated what functional or grammatical underpinnings these two stem forms might have. Here, I argue that the two stem forms in Seenku encode reality status (realsis versus irrealis), and I show how subsequent fieldwork has tested and upholds this hypothesis, thus completing the cycle from fieldwork to theory and back again.

This paper proceeds as follows: in §2, I provide background information on the language and its vitality. §3 gives the empirical facts on the form and distribution of Stem 1 and Stem 2, as found in my first field trip, relating the data to Mande cognates where possible. In §4, I argue for an analysis of the data based on the notion of (ir)realis and show how subsequent fieldwork tested and upholds this hypothesis. §5 considers how this system may have developed and lays out questions for future work.


2 Background

2.1 Dialects and previous work

Seenku is a Mande language of the Samogho subfamily, spoken in a cluster of villages approximately 40km west of Bobo Dioulasso. It has two primary dialects, Northern Seenku (Timi Ku [timi\textsuperscript{2}-ku\textsuperscript{2}], literally “language of Karangasso”) and Southern Seenku (Gbene Ku [gbene\textsuperscript{2}-ku\textsuperscript{2}], literally “language of Bouendé”).\textsuperscript{2} The northern dialect, subject of Prost’s (1971) grammar sketch, has around 5000 speakers, while the largely undocumented\textsuperscript{3} southern dialect has 12,000 speakers (Ethnologue 2014).

2.2 Phoneme inventory

Seenku has seven contrastive oral vowel qualities, /i e æ a o u/, collapsing to only five for nasal vowels: /i ë æ å u/; length is phonemic for both oral and nasal vowels.

The following table summarizes my current understanding of the consonant phonemes, though there is some question as to whether “palatal” should be a place of articulation unto itself or whether palatal phonemes are due to secondary palatalization of alveolar and velar consonants:

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|}
\hline
 & Bilabial & Alveolar & Palatal & Velar & Labiovelar \\
\hline
Stop & p b & t d & gy & k g & kp gb \\
Affricate & & ts dz & c j & & \\
Nasal & m & n & ñ & ñ & ñm \\
Fricative & f & s & ñ & & \\
Approximant & w & l/r & y & & \\
\hline
\end{tabular}
\end{table}

Finally, Seenku is a three-tone language, distinguishing H (3), M (2), and L (1), which can combine to form (at least) the contours HL (31), LH (13), ML (21), and MH (23); of these, there is only evidence for LH and ML being underived.

2.3 Vitality

In terms of vitality, Seenku is currently robust. It is used in day-to-day life in the villages and is the first language of children born there. There is also significant ethnic pride in being Sembla. However, the future vitality of the language is far from clear. Nearly all Seenku speakers are bilingual in Jula, the major lingua franca of the region, and the proximity of the villages to Bobo Dioulasso means that it is easy to travel there for work and education. With increasing urbanization, Seenku could easily become threatened, making it all the more important to document the language while it still thrives.

\footnote{The transcription system used in this paper is roughly IPA, with the following differences: <y> stands for IPA [j], <c> stands for IPA [ʃ], <j> stands for IPA [ʒ], <gy> stands for IPA [j], and tone is marked with superscripted number values: 3 = High, 2 = Mid, 1 = Low. If two or more syllables of a polysyllabic word have the same tone, tone is marked only once at the end of the sequence, e.g. jìgë\textsuperscript{1} = jìgè ‘dog’.}

\footnote{Save for Congo’s (2013) master’s thesis, documenting aspects of the phonology and lexicon.}
Every verb stem in Seenku has two allomorphs, which I will call here Stem 1 and Stem 2. Stem 1 is distinguished from Stem 2 in two regards: First, its lexical tone is stabler than that of Stem 2, which interacts with the tone of the preceding direct object. Second, in some lexically-listed cases, Stem 1 displays palatalization of the initial consonant. The table in (3) first illustrates cases of Stem 1 vs. Stem 2 differentiated solely by tone. The tonal contrast between M and H verb stems is neutralized in Stem 1. In Stem 2, all three are neutralized after nonpronominal objects, which spread their tone onto the verb, but the three-way contrast is visible following pronominal objects, which trigger tonal changes on the verb depending on its underlying tone while at the same time altering it on the surface (see §3.2 for further details); in the following table, Stem 2 forms are unmarked for tone:

(3) Stem 1 vs. Stem 2 for non-palatalizing stems

<table>
<thead>
<tr>
<th>Tone</th>
<th>Stem 1</th>
<th>Stem 2</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>sä₁</td>
<td>sä</td>
<td>'buy'</td>
</tr>
<tr>
<td></td>
<td>fɔ¹</td>
<td>fɔ</td>
<td>'uproot'</td>
</tr>
<tr>
<td></td>
<td>gyɔ̃¹</td>
<td>gyɔ̃</td>
<td>'grill'</td>
</tr>
<tr>
<td></td>
<td>səre¹</td>
<td>səre</td>
<td>'pound'</td>
</tr>
<tr>
<td>M</td>
<td>tsǐ³</td>
<td>tsǐ</td>
<td>'cut'</td>
</tr>
<tr>
<td></td>
<td>ga:³</td>
<td>ga:</td>
<td>'pull'</td>
</tr>
<tr>
<td></td>
<td>sɔ:³</td>
<td>sɔ:</td>
<td>'sell'</td>
</tr>
<tr>
<td></td>
<td>dɔge³</td>
<td>dɔge</td>
<td>'cook'</td>
</tr>
<tr>
<td>H</td>
<td>bã³</td>
<td>bã</td>
<td>'hit'</td>
</tr>
<tr>
<td></td>
<td>dzǐ³</td>
<td>dzǐ</td>
<td>'put'</td>
</tr>
<tr>
<td></td>
<td>jigi³</td>
<td>jigi</td>
<td>'crush'</td>
</tr>
</tbody>
</table>

A small class of verb stems undergoes palatalization of the initial consonant in Stem 1 in addition to the regular tonal changes. The attested verbs that follow this pattern are shown in (4):

(4) Stem 1 vs. Stem 2 for palatalizing stems

<table>
<thead>
<tr>
<th>Tone</th>
<th>Stem 1</th>
<th>Stem 2</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>jɛ¹</td>
<td>sɛ</td>
<td>'dig'</td>
</tr>
<tr>
<td></td>
<td>fyɛ¹</td>
<td>fɛ</td>
<td>'heat'</td>
</tr>
<tr>
<td>M</td>
<td>jɔfɛ³</td>
<td>sɔsɛ</td>
<td>'look at'</td>
</tr>
<tr>
<td>H</td>
<td>pɔ³</td>
<td>nɔ</td>
<td>'eat'</td>
</tr>
</tbody>
</table>

In the M-toned verb jɔfɛ³ 'look at', both consonants undergo palatalization. This could either due to all consonants in the root undergoing palatalization or base-reduplicant identity effects (McCarthy and Prince 1995), assuming this root is reduplicated.

4I will be focusing mainly on transitive verbs here so that these interactions are visible.
5I have heard some consultants pronounce Stem 2 as tsæsɛ, and it is not clear how these consultants would pronounce Stem 1 (i.e. where palatalization would occur).
Prost (1971) lists stems that differ in other ways between what I call Stem 1 and Stem 2 for the northern dialect, including stems that undergo vowel changes and stems that undergo labialization of the initial consonant. As I have not confirmed these patterns for Southern Seenku, I leave them out of the following discussion.

Stem 1 and Stem 2 differ in their distribution across inflectional categories. In the following subsections, I illustrate them in their most common uses according to my original data sample.

3.1 Stem 1

Stem 1 is used in the perfective, the perfect, the progressive, and a periphrastic recent past. The latter two constructions share a verbal complex with a postposition and differ in their auxiliary verb selection.

3.1.1 Perfective

The perfective uses no auxiliaries, only the main verb. L-toned Stem 1 forms are used without any overt changes, but surface H-toned Stem 1 forms (i.e. underlying M and H verbs) lower to M.\(^6\) The examples in (5) illustrate the perfective with an underlying L-toned, M-toned, and H-toned stem, respectively:

(5) a. \(m^2\) ny\(^1\) dyi\(^1\) ge\(^1\) s\(^1\)a\(^1\)
1SG.EMPH mother dog buy.PFV
‘My mother bought a dog.’

b. \(n^2\) gya\(^1\)n\(^3\)-go\(^3\) s\(^3\)a\(^2\)
1SG corn-field sell.PFV
‘I sold a cornfield.’

c. mi\(^3\) kɔe\(^2\)1 b\(^a\)\(^2\)
1PL man hit.PFV
‘We hit a man.’

This construction can also be made explicitly past by adding the past particle \(l^3\) immediately after the subject; the particle is optionally realized instead as a H-toned mora, lengthening the final vowel of the subject:

(6) a. kɔ\(^2\)rO\(^2\) mi\(^3\) bi\(^3\) sɔ\(^2\)
    yesterday 1PL.PST goats sell.PFV
    ‘Yesterday we sold goats.’

b. a\(^1\) ni\(^2\) k\(^e\)\(^3\) br\(^e\)\(^2\) f\(^w\)r\(^1\) s\(^3\)a\(^2\)
    3SG father PST pigs three sell.PFV

\(^6\)In the interest of space, I will not delve into tonal changes here, but elsewhere (McPherson 2015) I argue for [upper] and [raised] tonal features in Seenku, with the perfective formed with a [raised] featural suffix. This could be a tonal reflex of Babaev’s (2011) reconstructed Proto-Mande perfective suffix \(^*da/*la\), all of whose segmental material has been lost in Seenku.
‘His father sold three pigs.’

c. mi³ le³ kɔre²¹ bã²
  1PL PST man  hit.PFV
  ‘We hit a man.’

Crucially and characteristically of Stem 1 forms, we find no tonal interactions between the verb and the object, as can be seen by comparing (6a) and (6b). Regardless of the tone of the object, the verb retains its perfective M tone.

3.1.2 Perfect

A similar Stem 1 construction, differentiated only by tone, is the perfect. In place of the lowering of H to M, the perfect concatenates a HL contour onto the verb stem, resulting in a simple HL fall on H-toned verbs and a LHL “bell-shaped” tone on L-toned verbs. One consultant translates this construction consistently with ‘already’. Like the perfective, the perfect can be either present (unmarked) or past (with the addition of post-subject lE³). Consistent with a perfect interpretation, the present form is incompatible with temporal adverbs like ‘yesterday’ (though this may be used with past perfects, as in (7c)). Examples include:\n
(7) a. a¹ ka:¹³¹
  3SG go.PERF
  ‘He has (already) gone.’

b. mo² ne²² sa³ jɔ³¹
  1SG.EMPH food  eat.PERF
  ‘I have (already) eaten.’

c. kɔrɔ² a:¹³  bɛ:¹ sã¹³¹
  yesterday 3SG.PST pig  buy.PERF
  ‘Yesterday, he had (already) bought a pig.’

Stem 1 form is particularly visible in (7a) and (7b), where we find segmental differences from Stem 2: ‘go’ has Stem 2 form kε³ and ‘eat’ has Stem 2 form nɔ (tone determined by context).

3.1.3 Progressive

The progressive construction involves an auxiliary verb ‘be’ in its usual position after the subject (Seenku being an S Aux OV language), then the object, then a Stem 1 verb form followed by the postposition nɛ. Though Prost (1971) treats this element as a verbal suffix (-ne) in his description of northern Seenku, I treat it as a postposition, since the same construction appears to be used for both verbal and nominal forms:

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₇Monosyllabic stems are lengthened to accommodate the complex contour tone.
While the nominal postposition takes the tone of the preceding noun, the verbal postposition is uniformly H (with transitive verbs; with intransitive verbs, it is uniformly L). Similar progressives with their origins in nominal periphrasis are well-attested in the Mande languages; for discussion, see Heine and Reh (1984), Heine (1994), Claudi (1994), or Tröbs (2004), among others.

The progressive auxiliary ‘be’ has the following suppletive allomorphs for the affirmative and negative:

(9) **Inflectional paradigm for ‘be’**

<table>
<thead>
<tr>
<th>Affirmative</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>si₁³</td>
<td>pa²</td>
</tr>
</tbody>
</table>

The rising tone of si₁³ often simplifies depending on tonal context. As with perfective aspect, the progressive can be put in the past tense using the post-subject past particle lε³.

Examples of progressive forms include:

(10) a. a₁ si³ mo² bå³ ne³ (Present affirmative)

3SG be 1SG.EMPH hit in
‘S/he is hitting me.’

b. mi³ pa² be:¹ sā¹ ne³ ye² (Present negative)

1PL be.NEG pig buy in NEG
‘We are not buying a pig.’

c. mo² le³ si₁³ bå:²¹ bo³rε³ ne³ (Past affirmative)

1SG.EMPH PST be xylophone play in
‘I was playing the xylophone.’

d. ne³ pa² kwo¹ po³ ne³ ye² (Past negative)

1SG.PST be.NEG toh eat in NEG
‘I was not eating toh (grain paste).’

In (10d), ne³ is the result of merging 1sg n² with the past particle lε³. The palatalization of Stem 1 can also be seen on the verb po³ ‘eat’ in this example (cf. Stem 2 form no). As expected for Stem 1 forms, there is no tonal interaction between the verb and the object.
3.1.4 Periphrastic recent past

The other postpositional Stem 1 construction is a periphrastic recent past, offered in translation and similar in use to the French periphrastic immediate past *venir de faire* (cf. English ‘just did/have done’). Despite being perfective in interpretation, the verb form does not take perfective tone; instead it is identical to the verb form used in the progressive, belying the fact that both of these constructions arose from nominal periphrasis. For more on the relationship between Stem 1 and nominal forms, see §4.3

In place of the auxiliary *si*³ ‘be’ used in the progressive, the recent past uses the auxiliary *fo*³, meaning roughly ‘come from’. Like the progressive, the recent past parallels a nominal construction, shown in (11):

(11)  n² fo³ sogi²¹ ne¹
     1sg come.from market in
     ‘I just came from the market.’

The following examples illustrate the recent past construction:

(12) a.  mi³ fo³ so²¹ ko¹ ne³
     1pl come.from song sing in
     ‘We just sang a song.’

b.  mo² fo³ be¹ ka³ ne³ so³ sa² ne²
     1sg.emph come.from pig chase in right.now
     ‘I just now chased a pig.’

c.  n² fo³ ble³ ku¹ bwo³ ne³
     1sg come.from duck kill in
     ‘I just killed a duck.’

I tested whether this construction could be put into the past tense, which we might expect given the otherwise parallel form with the progressive. A consultant rejected these forms, but stated that a L-toned particle *ke*³ could follow the auxiliary, but that this did not mean anything different from the version without the particle (i.e. it was not a past tense). It is not clear at this stage what this particle means, and thus I omit these forms here pending further investigation.

3.2 Stem 2

Stem 2, which differs from Stem 1 in its tonal interactions with the object and its lack of palatalization, is used in the prospective, habitual, and imperative. Of these, only the prospective involves an auxiliary verb.

In Stem 2 constructions, the object and the verb come together to form what I call “tonal compounds”. The exact nature of these tonal interactions depends on the structure of the object. If it is a simple noun (i.e. nonpronominal), it spreads its final tone onto the verb stem, neutralization lexical tone contrasts, schematized in (13):
Tonal compounding in Stem 2 forms

If the object is pronominal, the tone of the verb stem is perturbed in systematic ways depending on the tone of both the object and the verb. The following table summarizes these changes, where the final tone of the object is listed down the lefthand side and the tone of the verb across the top row:

### Schematic of tonal changes involved in pronominal tonal compounds

<table>
<thead>
<tr>
<th>L</th>
<th>M(L)</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>M</td>
<td>H</td>
<td>L</td>
</tr>
<tr>
<td>H</td>
<td>H</td>
<td>H</td>
</tr>
</tbody>
</table>

H-final pronominal objects neutralize tonal contrasts on the verb in the same way as simple nonpronominal objects, but L-final and M-final objects provide evidence for the underlying three-way tonal contrast on verbs. In particular, the M vs. H lexical contrast, neutralized in Stem 1, is revealed with a L-final object, as shown in the following imperative examples:

(15) a. a¹  sɔ:¹
    3SG sell
    ‘Sell it!’ (/sɔ:²/)

    b. a¹  bã²
    3SG hit
    ‘Hit it!’ (/bã³/)

Tonal compounding is a general process in the language, found also in inalienable possession and some compound nouns (Poss/N N). In subsequent examples, tonal compounds will be enclosed in parentheses: (O V).

### 3.2.1 Prospective

The prospective is formed with an auxiliary verb na¹ after the subject. Though used as a future construction, the prospective is aspectual in Seenku, compatible with present (unmarked) and past (particle lɔ³) and incompatible with any other aspect. The auxiliary is probably derived from the verb ‘come’, segmentally identical in its Stem 1 form but with L instead of LH tone:

(16) mor²³  na¹  lɔ³
    1SG.PST come.Pfv here
    ‘I came here.’
This prospective construction (with origins in ‘come’) has been reconstructed back to Proto-Mande "nà (Babaev 2011). The following examples systematically show the neutralization of verbal tone with a L, M, and H-toned nonpronominal object:

(17) a. mi\(^3\) !na\(^3\) (be:\(^1\) sā\(^1\)) (L verb)
   1PL PROSP pig  buy
   ‘We will buy a pig.’

b. mi\(^3\) !na\(^3\) (be:\(^1\) sō:\(^1\)) (M verb)
   1PL PROSP pig  sell
   ‘We will sell a pig.’

c. mi\(^3\) !na\(^3\) (be:\(^1\) bā\(^1\)) (H verb)
   1PL PROSP pig  hit
   ‘We will hit a pig.’

(18) a. mi\(^3\) !na\(^3\) (be:\(^2\) sā\(^2\)) (L verb)
   1PL PROSP pigs  buy
   ‘We will buy pigs.’

b. mi\(^3\) !na\(^3\) (be:\(^2\) sō:\(^2\)) (M verb)
   1PL PROSP pigs  sell
   ‘We will sell pigs.’

c. mi\(^3\) !na\(^3\) (be:\(^2\) bā\(^2\)) (H verb)
   1PL PROSP pigs  hit
   ‘We will hit pigs.’

(19) a. mi\(^3\) na\(^1\) (bi\(^3\) sā\(^3\)) (L verb)
   1PL PROSP goats buy
   ‘We will buy goats.’

b. mi\(^3\) na\(^1\) (bi\(^3\) sō:\(^3\)) (M verb)
   1PL PROSP goats sell
   ‘We will sell goats.’

c. mi\(^3\) na\(^1\) (bi\(^3\) bā\(^3\)) (H verb)
   1PL PROSP goats hit
   ‘We will hit goats.’

Regardless of whether the verb L, M, or H, it always takes the tone of the preceding object.

The prospective is also compatible with the past tense particle, creating a past prospective (“was going to do...”). Examples include:

(20) a. mo\(^2\) lē\(^3\) !na\(^3\) (bi\(^2\) sā\(^1\))
   1SG.EMPH PST PROSP goat buy
‘I was going to buy a goat.’

b. a:13  lna3 (mo2  don1  bā1)
3SG.PST  PROSP  1SG.EMPH  child  hit
‘He was going to hit my child.’

3.2.2 Habitual

The basic habitual construction consists of a Stem 2 verb with the suffix -웨. As in the prospective, tonal compounding occurs between the object and the verb. In the interest of space, I will not provide the full range of examples illustrating these tonal changes, since they follow the same pattern seen in the prospective.

(21) a. jige1  la31 (be:2  ɲmā2-웨2)
dog  this  pigs  eat-HAB
‘This dog eats pigs.’

b. jige1  la31 (a1  don3  n̥3-웨3)
dog  this  3SG  children  eat-HAB
‘This dog eats children.’

8c. mi3  (bi3  sɔ:3-웨3)  kere1-о:3-kere1
1PL  goats  sell-HAB  day-LINK-day
‘We sell goats everyday.’

The habitual aspect can be put into the past tense with the use of the post-subject particle ㄴ드:

(22)  mo2  ㄴ드  (be:2  sɔ:2-웨2)
1SG  PST  pigs  sell-HAB
‘I used to sell pigs.’

For the habitual suffix on Stem 1 forms, see §4.2.6 on the experiential perfect.

3.2.3 Imperative

The singular affirmative imperative consists of the tonal compound (O V) alone:

(23) a. (be:1  sɔ:1)  (M verb)
pig  sell
‘Sell a pig!’

8The verb ㄴ is used with meals and soft foods while ɲmā is used with meat and other tough foods that require chewing. My consultant accepted this form containing ㄴ but suggested it might be better with the verb ɲmā, since humans do consist of meat. Note that the 3sg in this example is a dummy pronoun with no specific referent, since inalienable nouns like ‘child’ must always be used with a possessor.
b. (be₁ sā³) (L verb)
pig  buy
‘Buy a pig!’

(24) a. (bi³ sɔr³) (M verb)
goats sell
‘Sell goats!’

b. (bi³ sā³) (L verb)
goats buy
‘Buy goats!’

In the negative, the second person pronoun must be used, placed before the tonal compound:

(25) a. a² (bi³ sā³) ệ²
2SG goats buy NEG
‘Don’t buy goats!’

b. a² (dɔ₁ gyɔ¹) ệ²
2SG beer brew NEG
‘Don’t brew beer!’

In the plural imperative, the second plural pronoun i² is always used:

(26) a. i² (ɓe₂ sā²)
2PL pigs buy
‘Buy pigs!’

b. i² (mæ²1-den¹ sɔr¹) ệ²
2PL millet-grain pound NEG
‘Don’t pound millet!’

3.3 Local summary

This section has laid out the basic verbal morphology found in main clauses in Seenku. The following table summarizes TAM specifications along with the stem used in each.

(27) a. Summary of present/past verbal morphology

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
<th>Perfect</th>
<th>Progressive</th>
<th>Rec. Past</th>
<th>Prospective</th>
<th>Habitual</th>
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<tr>
<td>Present</td>
<td>Stem 1</td>
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<td>Stem 2</td>
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<td>Past</td>
<td>Stem 1</td>
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<td>Stem 1</td>
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<td>Stem 2</td>
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b. Summary of imperative verbal morphology

<table>
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<th>Imperative</th>
<th>Stem 2</th>
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Aspectual marking is crosscut by present and past tense (with the exception of the recent past). Unsurprisingly, the imperative is incompatible with other tense/aspect marking. Stem 1 is found in perfective, perfect, progressive, and recent past, while Stem 2 is found in the prospective, habitual, and imperative; tense (past and present) has no effect on stem form.

4 Realis vs. Irrealis

Descriptive analysis of the data gathered in preliminary fieldwork on Seenku revealed the distribution of stem forms outlined in the last section. At this point, the task moves from describing the distribution of stems to asking the question, “Why should we find this distribution as opposed to any other?” Here we turn to linguistic typology and theory to shed light on the question, embodying the shift from description to theory in the fieldwork cycle in (1). Resulting theoretical analyses make predictions about what data patterns we expect to see (or not see), which can be tested by further fieldwork, the starting point of the cycle.

In this section, I argue that Seenku Stem 1 and Stem 2 encode realis and irrealis, respectively. I begin by presenting the theoretical reasoning based on the data from the last section, then turn to the predictions of this analysis and show how these predictions were upheld by subsequent fieldwork.

4.1 The hypothesis and predictions

The distribution of Stem 1 and Stem 2 forms can be explained by appealing to the notion of (ir)realis. Quoting Mithun (1999:173), “The realis portrays situations as actualized, as having occurred or actually occurring, knowable through direct perception. The irrealis portrays situations as purely within the realm of thought, knowable only through imagination.” Stem 1 constructions (perfective, perfect, progressive, and recent past) all encode concrete, actualized events (either completed or in the process of completion), consistent with realis. In contrast, Stem 2 constructions (prospective, habitual, and imperative) all encode either an unrealized event, in the case of the prospective and imperative, or a pattern of events, episodes of which may have already been realized but whose continuing occurrence can be viewed as “within the realm of thought”, consistent with irrealis. For example, if I say, “I will go to the gym tonight”, but one cannot be certain this will take place. The same holds of an imperative; I can tell someone, “Go to the gym!”, but there is perhaps even less guarantee that the situation will be actualized. Finally, even a habitual shares this uncertainty; a statement like “I go to the gym every week” generalizes over my past behavior, but how the pattern will extend into the future remains purely in the realm of thought.\(^9\)

\(^9\)As anyone establishing a gym habit knows all too well.
The correlation between irrealis and future (here, prospective aspect) and imperative is well established (Givón 1994) and widely attested crosslinguistically, e.g. in Anjam (Roberts 1990), South Efate (Thieberger 2004), Manam (Lichtenberk 1983), Nunggubuyu (Heath 1984, Verstraete 2005), Central Pomo (Roberts 1994), Takelma (Mithun 1999), and Tsou (Zeitoun 2005). The correlation between irrealis and habitual is much less uniform (Givón 1994, Plungian 2005, de Haan 2012), but plenty of languages do categorize it in this way; including Bininj Gun-Wok (Evans 2003), West Greenlandic (Cristofaro 2004), Manam (Lichtenberk 1983), Yurakaré (Van Gijn and Gipper 2009), etc. Thus, the distribution of Stem 1 (realis) and Stem 2 (irrealis) in Seenku is unsurprising from a crosslinguistic perspective.

Finally, it should be noted that the exact nature of (ir)realis is contentious (de Haan 2012), and indeed, some even argue that it may not be a typologically valid category (Bybee et al. 1994). It is not my aim in this paper to untangle this situation, but simply to investigate the Seenku distinction in light of the (admittedly diverse) theoretical and typological claims in the literature. The more we add new data like Seenku to the discussion, the more we can hone these theories (that is, fieldwork drives theory forward just as much as theory can drive fieldwork forward).

The classification of Stem 2 as irrealis makes predictions about where else it might be used. First, we might ask whether there is any interaction between negation and reality status, since in some languages (e.g. Caddo and Muyuw) negative propositions are always irrealis regardless of other tense/aspect specifications (de Haan 2012). In Seenku, negation has no effect on stem distribution, consistent with Mithun’s (1995) assertion that in some languages, negation scopes over reality status and hence cannot affect its selection (while in Caddo and Muyuw the opposite scope would hold true). The following example shows that Stem 2 is used in negative prospective; for negative imperatives, see (25) above:

(28)  
\[ \text{mi}^3 \text{ na}^1 \quad (\text{bi}^3 \text{ sā}^3) \quad \text{ye}^2 \]  
\[ 1\text{PL PROSP goats buy.irreal NEG} \]  
\[ \text{‘We will not buy goats.’} \ (/[sā^1]/) \]

Here and henceforth, I gloss Stem 1 forms as REAL for ‘realis’ and Stem 2 forms as IRREAL for ‘irrealis’.

Other common contexts for irrealis crosslinguistically include conditionals, purposives, hortatives, and modal contexts (ability, permission). Data on these constructions were sparse in the original dataset, and so I designed further elicitations to specifically test these predictions.

### 4.2 Confirming the hypothesis

The data gathered in subsequent elicitations provide additional evidence that the Stem 1/Stem 2 distinction is driven by (ir)realis: all of the predicted irrealis forms take Stem 2 except for one, the conditional, where we find another crosslinguistically common verb form: the perfective, which is realis. The following subsections briefly illustrate these patterns.
4.2.1 Purposives: irrealis

Preliminary data from purpose constructions show clear Stem 2 (irrealis) usage:

(29)  
(a) n² na¹ (bi²¹ so¹) soŋ²¹ ne¹  
1SG come.REAL.PFV goat sell.IRREAL market in  
‘I came to the market to sell a goat.’  
(b) mo² na¹ a² wo² ge¹ra³ me¹ (kwo¹ na¹)  
1SG.EMPH come.REAL.PFV 2SG EMPH home COMP toh eat.EMPH  
‘I came to your house to eat toh.’

In (29a), the lexically M-toned verb takes L from the object due to tonal compounding found with irrealis stems. In (29b), the case is even clearer, since here we see not only tonal compounding (n² ‘eat’ being a M-toned verb) but also the use of the non-palatalized Stem 2 (irrealis) form. A complementizer is optional with this construction. In (29a), it is unclear whether the O+V phrase is internal to the main clause or not (i.e. whether the PP soŋ²¹ ne¹ ‘at the market’ modifies the main verb, as the translation suggests, or the subordinated verb, as word order suggests).

4.2.2 Hortatives: irrealis

Hortatives take roughly the same form as imperatives, and as such, they employ the irrealis verb stem:

(30)  
(a) (a¹wa³) m³¹ (gyan¹-den³ sore³)  
(HORT.AFF) 1PL/GEN corn-grain pound.IRREAL  
‘Let’s pound corn!’  
(b) m³¹ (be¹ sᵃ¹)  
1PL/GEN pig buy.EMPH  
‘Let’s buy a pig!’

The morpheme a¹wa³ is optionally used in affirmative hortatives, but is ungrammatical in negative hortatives:

(31) *a¹wa³ m³¹ gyan¹-den³ sore³ nge²  
HORT.AFF 1PL/GEN corn-grain pound.IRREAL NEG  
‘Let’s not pound corn!’

The form in (31) is grammatical without a¹wa³.

4.2.3 Modal contexts: irrealis

As predicted, we find Stem 2 irrealis forms in modal ability contexts, as illustrated by the following examples:
In this construction, either a complementizer or a repeated subject pronoun may be used in the complement clause; it is unclear whether they are in true complementary distribution or whether their coexistence is an accidental gap in the data.

We also find Stem 2 irrealis forms in the complement clause of modal ‘should/must’ (no difference in Seenku):10

Here, the subject of the complement clause is followed by a particle ƙe² (note the tonal difference with the past), whose exact meaning is not clear. Like the past particle, it is allowed to blend with the pronoun, resulting in either nasalization or lengthening.

### 4.2.4 Conditionals: realis (perfective)

Crosslinguistically, conditional clauses tend to prototypically contain (at least) one of two verb forms: irrealis or past/perfect(ive). The former follows naturally from the semantics of a conditional if-clause, which is inherently uncertain (though in varying degrees depending on the exact construction). The latter is more surprising, since past or perfect(ive) forms are canonically realis. Bybee (1992) and Givón (1994) offer a diachronic explanation, in which past or perfective forms came to be used as past subjunctives then as counterfactuals, and from there they could expand their domain and “colonize” other conditionals.

Seenku appears to be in this latter camp. The form of the verb in the if-clause is Stem 1, with the tonology of the perfective (H tones lower to M). The verb stem is followed by ƙe³, which at first glance appears to be the same postposition that is found in the auxiliary constructions (progressive and perfect), but we find a difference when we look at conditionals with intransitive verbs. Here, too, the particle ƙe³ is H-toned (34b), in contrast to the L-toned postposition in progressive and recent past construction. Thus, I gloss ƙe³ as the conditional particle ‘if’, which is accidentally homophonous with the

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10 The modal ka²ɲi¹ is a loanword from Dioula, where it consists of a predicate marker ka and the predicate adjective ɲi ‘be good’.
postposition ‘in’. This same form is found in all kinds of conditionals (high certainty (34a), lower certainty (34b), counterfactual (34c)):

(34) a. a² do₂¹ mbä² ne³ a¹ na¹³ sa²¹
   2SG child hit-REAL.PFV if 3SG PROSP cry.IRREAL
   ‘If you hit a child, he will cry.’ (/bä³/)

b. a² na¹ ne³ mo² ge¹ra³ mɔ¹₁³ na¹ (bi²¹
   2SG come-REAL.PFV if 1SG.EMPH home 1PL.PST PROSP goat
   kɔ¹-ts₁)
   head-cut.IRREAL
   ‘If you came to my house, we would slaughter a goat.’

c. ne³ kwo¹ na² ne³ fe³ ne² na³ (kɔ¹ka²¹
   1SG.PST toh eat-REAL.PFV if already NEG 1SG.PST PROSP meat
   ɳma₁)
   eat.IRREAL
   ‘If I had not already eaten toh, I would have eaten meat.’

In all if-clauses, the perfective Stem 1 realis form is used. The certainty levels are distinguished in the subsequent clause: in higher certainty forms like (34a), the regular prospective is used (hence irrealis); in lower certainty forms (past conditional and counterfactual), the past prospective is used (34b-c).

While we may have expected irrealis in these constructions, Seenku is not unusual in using a realis past or perfective form instead, and I argue that these data do not undermine the original analysis.

4.2.5 Other irrealis contexts

A use of Stem 2 in line with the irrealis hypothesis is in the complement of ‘try’ (literally ‘look at’ in Seenku):

(35) naa³¹ fə²fe² ne² (bɛɛ¹ ʂɔ¹)
   1SG.PST.3SG look.PFV.REAL 1SG.SUDBORD pig sell.IRREAL
   ‘I tried to sell a pig.’

We see here that even though the main clause is perfective (employing Stem 1), the complement is irrealis. The use of irrealis in the context of ‘try’ is natural, since trying does not entail actualization of the action.

More surprising, we find the irrealis in causative constructions, in the complement of the verb ‘make’. For example:

(36) a¹ mo³ ba¹ mo² (nɔ²ne³san³ nɔ³)
   3SG 1SG.EMPH make.PFV.REAL 1SG.EMPH food eat.IRREAL
   ‘He made me eat.’
The causative, especially in the perfective, might seem like an unusual place for an irrealis complement, since at least in English, this construction implies that the subject of the complement has indeed eaten. However, in Seenku, a consultant reports that it is grammatical to add “but I refused” after such a phrase, indicating that actualization of the eating is not implied. Even were this not the case, a reviewer points out that if irrealis is a morphosyntactic concept rather than a purely semantic one, these forms may extend to constructions that are not prototypically irrealis in meaning.

4.2.6 Other realis contexts

Finally, we find contexts with exclusively realis complements that also support the hypothesis. First, the experiential perfect (‘have done X before’, or French avoir l’habitude de faire X) uses an auxiliary verb de:\[^{131}\], followed by the main verb in realis form but carrying the habitual suffix -wE[^2]:

\[(37)\]
\[
\begin{align*}
\text{a} & \text{ de:\[^{131}\] kwo\[^{1}\] p} & \text{3SG EXP.PERF toh eat.REAL-HAB} \\
\text{b} & \text{na\[^{3}\] (be:\[^{1}\] so\[^{3}\] ts\[^{3}\]k\[^{3}\])} & \text{3PL PROSP pig sell.REAL begin.IRREAL} \\
\end{align*}
\]
‘He has eaten toh before.’

It is likely that the bell-shaped tone on the auxiliary is related to regular perfect formation. Realis forms are also used in the complements of ‘begin’ and ‘finish’:

\[(38)\]
\[
\begin{align*}
\text{a} & \text{ i\[^{3}\] na\[^{3}\] (be:\[^{1}\] so\[^{3}\] ts\[^{3}\]k\[^{3}\])} & \text{3PL PROSP pig sell.REAL begin.IRREAL} \\
\text{b} & \text{mi\[^{3}\] s\[^{3}\] be\[^{2}\] so\[^{3}\] nya\[^{1}\] ne\[^{3}\]} & \text{1PL be pigs sell.REAL finish.REAL in} \\
\text{c} & \text{mi\[^{3}\] s\[^{3}\] nya\[^{1}\] ne\[^{3}\] be\[^{2}\] so\[^{3}\] ne\[^{3}\]} & \text{1PL be finish.REAL in pigs sell.REAL in} \\
\end{align*}
\]
‘They will start to sell a pig.’

In (38a), the O+V phrase ‘sell a pig’ acts as the object of the irrealis verb ‘begin’, and thus ‘begin’ takes H in tonal compounding. The examples in (38b) and (38c) show that the complement of ‘finish’ can either precede the verb or follow it; if it follows, it also takes the postposition ne\[^3\], but it is always realis in form.

4.3 Is Stem 1 nominal?

A reviewer suggests that the difference between Stem 1 and Stem 2 is not reality status but rather nominalization, with Stem 1 representing nominalized verbs and Stem 2 representing true verbs. Indeed, this explanation seems particularly appealing for the postpositional constructions of the progressive and recent past, which are clearly derived from nominal periphrasis, as they are in many Mande languages. I suspect that though this may be the origin of the postpositional constructions in Seenku, and perhaps Stem 1
forms in general, they are no longer treated as nominal synchronically (see also Nikitina 2011 for a discussion of verbalization of nominal periphrasis in Mande).

First, the object and verb do not form a possessive construction, the typical relation between an object and a nominalized verb. Possession in Seenku involves spreading of the tone of the possessor onto the possessed noun, just as we see in Stem 2 forms; Stem 1 forms are tonally independent. Nevertheless, explicitly nominalized verb forms also do not take form a possessive construction with the object, so this may not be a good criterion for Seenku. Second, the form of explicitly nominalized verbs is not the same as that found in postpositional constructions; while the latter retain lexical tone, nominalized verbs uniformly end in H, regardless of lexical tone:

(39)   a.  ci\textsuperscript{21}  s\tilde{a}\textsuperscript{3}  go\textsuperscript{1}
        house buy.NOM dry

        ‘Buying a house is expensive.’ (cf. /s\tilde{a}\textsuperscript{1}/)

   b.  b\textsuperscript{1}  b\tilde{a}\textsuperscript{3}  dz\varepsilon\textsuperscript{3}  n\textsuperscript{2}  n\textsuperscript{1}
        pig  hit.NOM good 1SG with

        ‘I like hitting pigs. (cf. /b\tilde{a}\textsuperscript{3}/)

Finally, if Stem 1 is nominalized, then non-postpositional forms with Stem 1 (perfective and perfect, including that found in the conditional) contain no verb at all.

In the end, even if Stem 1 were to be analyzed as nominal, we would still need to explain why all nominal forms are concentrated in realis contexts, especially when the prospective also contains a diachronic spatial/locational auxiliary (na\textsuperscript{13}, ostensibly related to ‘come’) yet employs Stem 2.

5 Conclusion

This paper has taken data from Seenku, an underdescribed Mande language of Burkina Faso, as an illustrative case of the interplay between documentation and linguistic theory. Preliminary data collection and description revealed two stem forms in various inflectional constructions. Through the lens of linguistic theory, these two forms appeared to line up with realis and irrealis, which made predictions about their distribution in the language. This brought us back to the starting point of the cycle, where further fieldwork produced more data to confirm this hypothesis.

While the various inflectional constructions in Seenku follow typical Mande patterns, we might ask whether the reality status division argued for in this paper is mirrored elsewhere in the language family. There is, to my knowledge, no systematic study of reality status in Mande with which to compare the Seenku data, nor am I aware of other systems with two or more verb stem forms used in different contexts (determined by reality status or otherwise). My best guess is that Seenku Stem 1 may have begun as a nominalization, used in locative periphrastic constructions, in which the current perfective construction could have had its start. This extra layer of structure on the verb could account for the fact that the object NP does not form as tight of a tonal relationship with it as it does with Stem 2. Through the process of language change, this locative nature may have become obscured in certain cases, like the perfective, and learners reanalyzed the form
as verbal, with reality status driving the distribution of verb forms; the original tonal phrasing was maintained, such that we find tonal interactions between object NPs and Stem 2 but not with Stem 1.

In the absence of parallel cases in Mande or a firm reconstruction of Seenku verbal morphology, we can only speculate on the origins of the system. Perhaps future fieldwork on Seenku and other closely related languages, all of which have small populations in a region of rapid Bambara/Jula expansion, can help shed light on the question; in the cycle of fieldwork, this would drive forward both a description and analysis of Seenku verbal morphology as well as the typology of (ir)realis and its paths of grammaticalization.

New data on Seenku will continue to test and confirm this hypothesis—and the cycle continues. In the absence of theory, descriptive analyses are just well-organized data. In the absence of data and new documentation, theories stagnate and never evolve. Their cyclic interplay allows our field of study to advance while at the same time facilitating the documentation of ever-decreasing linguistic diversity, both in Africa and beyond.

Abbreviations

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<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<td>AFF</td>
<td>affirmative</td>
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References


