This paper proposes a set of hypotheses on the nature of interrogation as a possible language universal. Examples and phrase structure rules and diagrams are given. Examining Tamazight and English, genetically unrelated languages with almost no contact, the author distinguishes two types of interrogation: (1) general, querying acceptability to the hearer of the speaker's proposition, as in English yes-no questions, and (2) local, requiring completion of the speaker's proposition, as in English wh-questions. Interrogative sentences share with possible non-interrogative constructions underlying modes characterized as: declarative, positive, interrogative, affirmative, ablative, focussed. (Negative can apply to these and others, but is not relevant to the discussion.) Local questions correspond only to focussed constructions and are closely related to relative clauses. General questions may correspond to either focussed or unfocussed constructions and are closely related to conditional clauses. (MK)

Interrogation: General vs. Local*

Jeanette Johnson

My observations on interrogation are based on my analysis
of Tamazight, a Berber language spoken in Central Morocco.** Some
interesting parallels between Tamazight and English interroga-
tive constructions are indicated in Table 1, where I have
given the English construction most closely analogous to the
Tamazight. The tactics differ--expectably--but the strategies
are remarkably similar.

This is a _typical_ set of constructions, in Table 1, in
that for any verbal sentence, it is possible to construct the
same variations, or sentence modes, around a nucleus which re-
tains the lexical content and the same grammatical features
below sentence level. For example, the verb tense is perfect
throughout this set. This is a partial set, in that other
variations of sentence mode are possible; for example, nega-
tive sentences could be constructed corresponding to sentences
1, 4, 9, 14.

The _modes_ of the sentences are expressed in terms of
grammatical (or perhaps conceptual) categories, (see Col. 3
of the table) rather than in terms of labels for morphemes
or for T-rules. This is done to give the analysis greater
generality and to facilitate comparisons between languages.

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The choice of sentence mode, in terms of these cate-
gories, is provided early in the phrase structure rules.
See on p. 2 of the handout, rules P1, 2, and 3 for the
Tamazight sentence mode rules. Some of the category labels
are in general use: imperative, declarative, negative, in-
terrogative. Other categories I have used for Tamazight may
be recognized as having some linguistic generality, although
the labels are less familiar: POS for positive, AFF for
affirmative, FOC for focused, and ABL for ablative -- all
to be explained shortly.

The constructions in Table 1 (I say constructions be-
cause Table 1 includes both clauses _and_ sentences) fall into
three groups: unfocused constructions, 1 through 4, and two
sets of focused constructions. Sentences 5 through 9 are
subject-focused, and 10 through 14 are object-focused.
Each subset contains a statement, plus one or two clauses,
plus one or two questions.

The unfocused subset, 1 through 4, has the simplest
sentence, with the shortest derivational history.

1. /i-wt muḥa ḥam:u/ (English 'Mike struck Henry').
See tree on p. 2. This sentence contains a simple transitive
verb in the perfect tense, /wt/, with its subject affix
/i-/ for third person singular masculine, agreeing with
the subject NP, /muḥa/. The complement of the VP is also
a noun phrase, functioning as direct object: /ḥam:u/.

Sentence 2 is a clause, which would be the condition of a conditional sentence. Sentences 3 and 4 are both __general questions:__ They ask for verification of the proposition they contain.

3. /ⁱs i-wt muḥa ḥam:u?/ and

4. /i-wt muḥa ḥam:u?/

Note that both are marked by rising intonation, as are the analogous English sentences. The tactical resemblance is fortuitous; more important is that in both examples, this type of question can be marked by a preposed element and intonation, or by intonation alone.

The preposed element for Tamazight is /is/, the same as found in sentence 2, the protasis of a conditional sentence:

/is i-wt muḥa ḥam:u/ 'If Mike struck Henry...'

Thus we see that, the morpheme /is/ is not just an exact translation of English 'if'. Rather, /is/ is a marker of a proposition which is __posited__, that is, __posed__ but not affirmed. Hence, it is labelled __positive__ (POS). In sentence 3, the proposition is posed __and queried__ -- hence the modal categories POS, INT. In 4, the proposition is still posed and queried, but the /is/ morpheme is deleted. This should probably still have the category POS (positive) in the third column, since POS is more than simply a morpheme.

The __unfocused__ subset has no __local__ question; for this sentence type we must look to the focused subsets. The local

question, as exemplified here by 7 and 12, queries one particular functional element of the sentence, such as the subject, direct object, time adverbial, etc. It is the subject which is queried in sentence 7:

/magːwutn ḥamːu?/ 'Who struck Henry?'

(Notice that the /gː/ in /magːwutn/ results from the juxtaposed i's; as explained in footnote two, the representation is more morphonemic than phonemic.) The question in 7 is about the subject. That is, for local questions, the interrogation is localized in one functional element of the sentence. This can be seen in the analogous English sentences for 7 and 12: 'Who struck Henry?' (subject-focused) and 'Whom did Henry strike?' (which is object-focused).

Each local question corresponds directly to a statement which focuses on a single sentence element, for example,

5. /d muḥa aqˑwutn ḥamːu/. 'It's Mike who struck Henry.'

Here the focus is on the subject, muha, or Mike.

The relationship between this sentence, 5, and sentence 1 is expressed by the category FOC, which 5 has and 1 does not. This category activates the focus transformation, which does several things: it shifts the focal element to the beginning of the sentence; it assigns to it primary stress; and it subordinates the rest of the sentence to it by the relative pronoun, here /ai/. The result for this set is /muḥa agːwt-n ḥamːu/; see the second tree, p. 2 of the handout, for the resulting phrase marker.

The /d/ preposed in sentence 5 (which is optional for

the declarative sentence) is the affirmative d particle which marks nominal predications in Berber.

The relationship between 5, the focused statement, and 7, the local question, is expressed by the categories of sentence mode in column 3. Both 5 and 7 are focused constructions: FOC. 5, the statement, is affirmed: AFF; 7, the question, is interrogative. The interrogation is located in the subject; in place of the noun /muḥa/, we have the morpheme /ma-/. The modal label for the erasure of a focused sentence element and substitution of the empty marker /ma-/ is ABL -- ablative.

Now the morpheme /ma-/ also occurs in the relative clause of the set, number 6, /mag:wtn ham:u/, which is not interrogative. The relationship between the relative clause, 6, and the local question, 7, is expressed by their both having the categories ABL -- ablative, and FOC -- focused, while only the question, 7, has the interrogative INT. Both are focused on the subject, both have the subject empty, but only 7 is a question.

The focused construction can also be found in a general question: see 9 and 14. This is not a third kind of question, but a higher level of complexity: The complete affirmed focused sentence of examples 5 and 10, can be posited, as in 8 and 13, or posited and queried, as in 9 and 14. To a basic phrase marker with the sentence mode POS, INT, AFF, FOC, the focus rule will apply first, then the AFF rule adding

the /d-/, affirmative, then the positive which adds the POS
marker /is/, and finally the interrogative, which adds sentence
intonation.

Thus it appears (or I hope that I have made it appear)
that one type of question is basically different from another:
the local question requires completion of a proposition by
presenting it with one element empty, and querying it. [The
emptiness of the element, in local questions and in relative
clauses, is marked in the deep structure by a category ABL;
in the surface structure of Tamazight it is marked by the
/ma-/ morpheme, in English by the /wh-/ morpheme. The
kind of element that is empty (subject, object, time adver-
bial, or whatever it is) is marked by the morpheme or con-
struction occurring with the empty /ma-/ or /wh-/ morpheme.
For example, wh + o in English marks subject, a human; /wh/ +
/om/ the object if human (or anthropomorphic). For Tamazight
the empty subject is marked, in 6 or 7, by /ma/ + /ai/ +
fourth person verb subject marker /i- -n/; the empty object
only by /ma/ + /ai/.]* Furthermore, the local question and its
related clause type are essentially focused constructions
derived directly from the focus transformation rule.

The other type of question, which I have called general
interrogation, presents to the hearer a complete proposition
and requires of him an indication of the status of that pro-
position, in his mind. In the third sheet of the handout, a
much oversimplified model of basic interrogative and related

*Omitted in presentation to L.S.A.

structures, I have said (under 2A) that general interrogation queries the <u>truth</u> of a proposition. This is not quite right, since we do not really expect our listeners to <u>know</u> the truth about everything, but only to have an opinion about it.

The same proposition <u>may</u> be posed, without being queried (POS but not INT), as part of a conditional sentence.

The set of hypotheses presented in page 3 of the handout seems to hold equally for Tamazight and for English, two languages with so little contact or likelihood of genetic relationship as to suggest that the features they share are general, if not universal, features of language. The hypotheses are presented for testing -- by those who wish -- on other languages. Comparison is facilitated by the use, in the rules for an example, or the most general categories available, rather than couching rules in terms of language-specific morphemes or T-rules.

Whether these general categories I have employed for sentence mode in Tamazight are truly grammatical categories, or whether they are conceptual categories, I am not yet sure. I <u>am</u> sure that each category used must have a grammatical effect, or realization, whether is is as a segmental morpheme, or a prosodic morpheme, or a T-rule effecting some other structural change.

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Post script: on focused sentences in English.

Let me distinguish between <u>focus</u> and <u>contrastive emphasis</u>. The sentence types exemplified by 5 and 10 are conceptually equivalent to sentences with a different (and apparently simpler) structure, 5a and 10a:

5. It's <u>Mike</u> who struck Henry.   5a. <u>Mike</u> struck Henry.

10. It's Henry whom Mike struck.   10a. Mike struck <u>Henry</u>.

Underlining here represents high stress value. Note that 5a and 10a form a natural paradigm with 15, with the stress on the verb:

15a. Mike <u>struck</u> Henry.

in which each sentence has contrastive emphasis, realized as a high stress value, on a different sentence element. The neutral member of this set is of course Sentence 1 in Table 1:

1. Mike struck Henry.

with no contrastive stress.

The focused sentences which are statements (Sentences 5 and 10) also have a high stress value on the focused element, which seems not to be shiftable to any other element. It may be necessary to recognize contrastive emphasis as another modal category, which ranges over the elements of unfocused sentences, but is localized in the focused element of a focused statement. Note that not all the focused constructions (5-14) have contrastive emphasis: the relative clause (6 and 11) do not, although they could have it on any non-relative element:

6a.   , who <u>struck</u> Henry, ... (not some other action)

6b.   , who struck <u>Henry</u>, ... (not some other object)

The relationship of contrastive emphasis and _focus_ must be considered further. The point to be emphasized here is that to say certain constructions are inherently focused, is one way of expressing the obvious relationship between them; and that this relationship, obtaining as it does in Berber and in English, may be a linguistic universal.

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Table 1.   Partial set of interrogative and related constructions sharing the same sentence nucleus

No.	Construction type (MODE)	Mode -- by categories[1]	Tamazight[2]	Analogous English constructions
Unfocused subset				
1	statement	DEC	i-wt muha ham:u.	Mike struck Henry.
2	clause (protasis)	POS	is i-wt muha ham:u,	If Mike struck Henry,
3	question (general)	POS, INT	is i-wt muha ham:u?	Did Mike strike Henry?
4	" "	(POS), INT	i-wt muha ham:u?	Mike struck Henry?
Subject-focused subset				
5	statement	AFF, FOC	d muha ai i-wt-n ham:u.	It's <u>Mike</u> who struck Henry.
6	clause (relative)	ABL, FOC	ma ai i-wt-n ham:u,	, who struck Henry, ...
7	question (local)	INT, ABL, FOC	ma ai i-wt-n ham:u?	Who struck Henry?
8	clause (protasis)	POS, AFF, FOC	is d muha ai i-wt-n ham:u,	If it's <u>Mike</u> who struck Henry,
9	question (general)	POS, INT, AFF, FOC	is d muha ai i-wt-n ham:u?	Is it <u>Mike</u> who struck Henry?
Object-focused subset				
10	statement	AFF, FOC	d ham:u ai i-wt muha.	It's <u>Henry</u> whom Mike struck.
11	clause (relative)	ABL, FOC	ma ai i-wt muha,	, whom Mike struck, ...
12	question (local)	INT, ABL, FOC	ma ai i-wt muha?	Whom did Mike strike?
13	clause (protasis)	POS, AFF, FOC	is d ham:u ai i-wt muha,	If it's <u>Henry</u> whom Mike struck,
14	question (general)	POS, INT, AFF, FOC	is d ham:u ai i-wt muha?	Is it <u>Henry</u> whom Mike struck?

[1] Declarative, positive, interrogative, affirmative, ablative, focused.

[2] To show morpheme boundaries clearly, transcription is not fully phonemic. Late rules make $i + i \rightarrow$ /g:/, and $a + a \rightarrow$ /a/; also, is + d $\rightarrow$ id: in some dialects.

INTERROGATIVE AND RELATED STRUCTURES IN TAMAZIGHT

Phrase structure rules providing choice of sentence mode:

P1. S → SM + SN   (sentence mode and sentence nucleus)

P2. SM → { IPV / DEC / CM } (NEG)   (imperative) (declarative) (negative) (complex modes)

P3. CM — (POS) (INT) {(ABL / AFF)} FOC) (ablative) (positive, interrogative, ablative affirmative, focused)

Structure of simple unnegated declarative sentence (No. 1 of Table 1):

Lex > (declar.
Phon /   intonation)
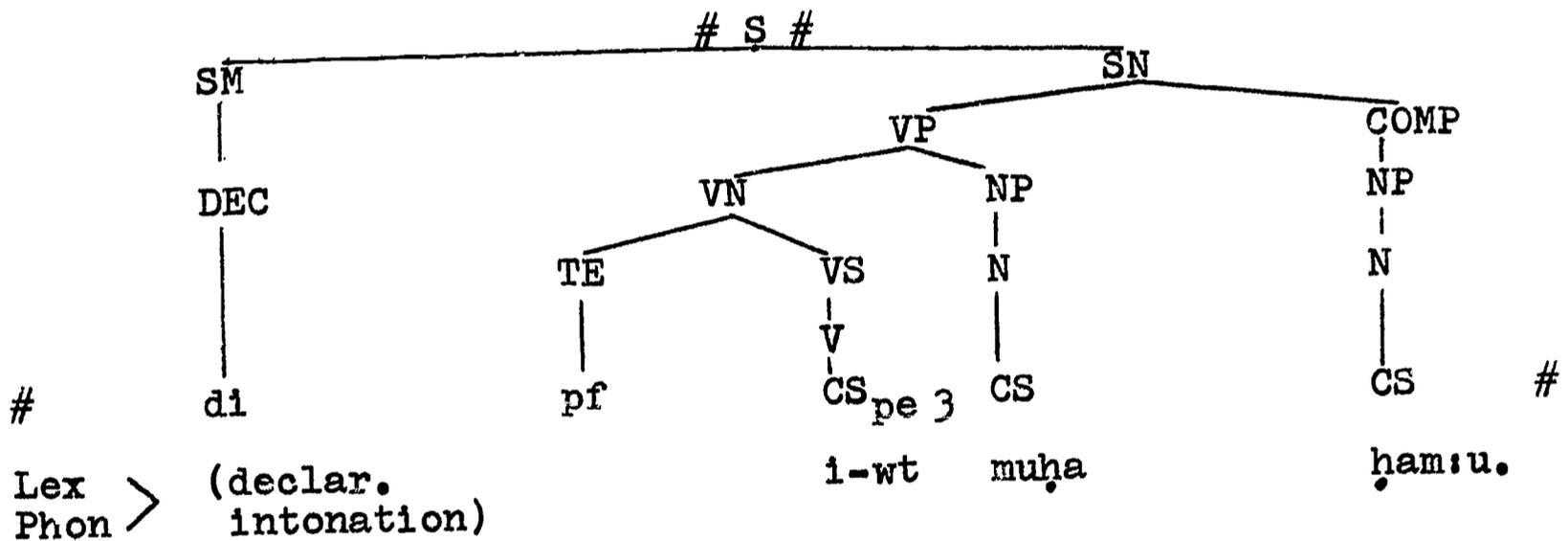
Structure of focused sentence (subject selected as focal element) (No. 5)
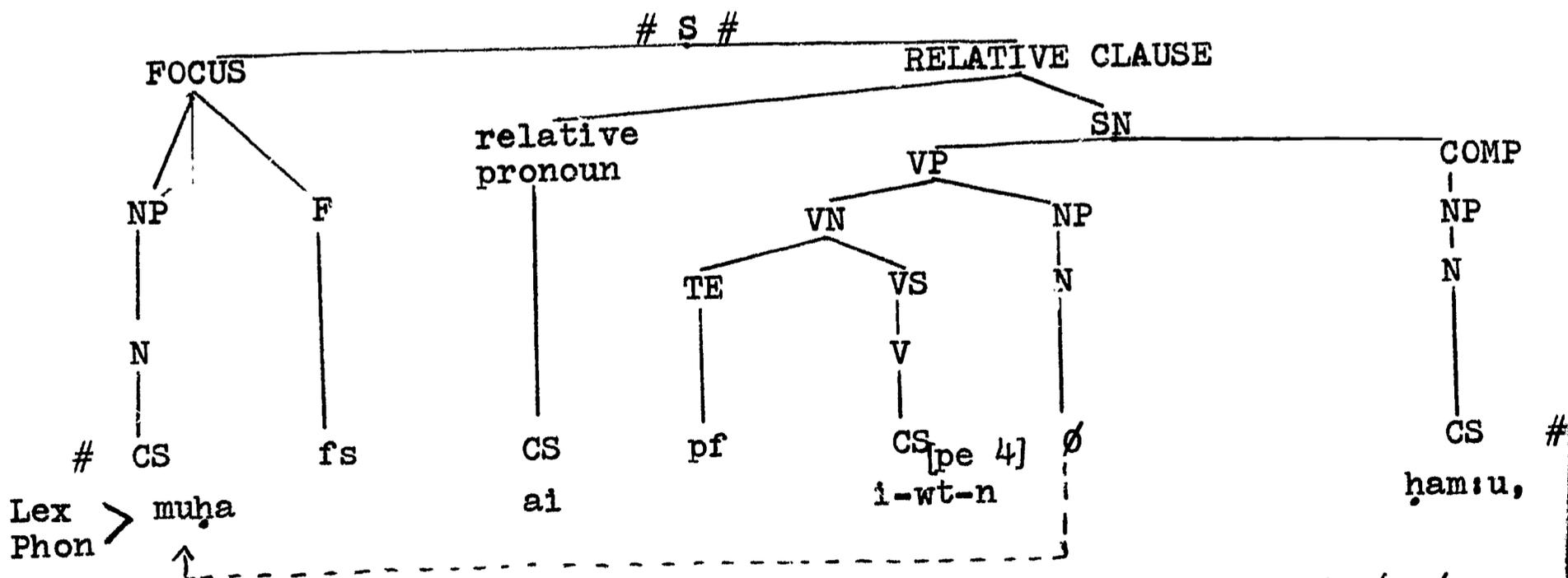
If SM → ABL,FOC, later rule deletes focused NP, replaces it with /ma/;
see 6, 7.

GENERAL VS. LOCAL INTERROGATION:

A SET OF HYPOTHESES TO BE TESTED ON VARIOUS LANGUAGES

1. Certain sentence types, formally distinct from others in the language, are
classified as interrogative on the grounds that they share certain semantic features;
principally, that they demand of the hearer information about the proposition con-
tained in the sentence.

2. Two major subcategories of interrogative sentence can be distinguished on
formal and semantic grounds. The latter are:

   A. One type demands verification of the proposition; i.e. it queries the
truth (or more often, the status in the hearer's mind, the acceptability to the
hearer) of the proposition it contains. Examples: English "yes-no" questions;
Berber questions in /is/. Call it general interrogation.

   B. One type demands completion of the proposition it contains; i.e., one
functional element of the sentence is empty (subject, object, verb, etc.). Call
this local interrogation; examples are English wh-questions, Berber ma-questions.

3. Each interrogative sentence shares an underlying structure with a possible
non-interrogative sentence, which may be focused (one functional element brought
into prominence) or not (according to these restrictions):

   A. General interrogation may correspond either to a focused or to an unfocused
sentence.

   B. Local interrogation corresponds directly only to the focused sentences;
in effect it is a focused sentence with the focused element null.

4. General interrogation is closely related to a type of clause which may occur
as the protasis of a conditional sentence; e.g. an if-clause in English, /is/ in
Berber.

5. Local interrogation is closely related to a relative clause; e.g. the wh-words
as relatives in English, the ma-words in Berber.