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Quoting and reporting across languages: A system-based and text-based typology

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This paper reports on a cross-linguistic corpus-based investigation of linguistic strategies of quoting and reporting of speech and thought across six genetically unrelated languages (Arabic, English, Dagaare, Hindi, Spanish and Japanese). Specifically, the study draws on Michael Halliday's concept of projection that covers the traditional categories of quoting and reporting as a type of logicosemantic relation. The study also examines projection "trinocularly", by viewing quoting and reporting from three viewpoints, namely their semantics, their lexicogrammatical realizations and the structural configuration they display. The use of projection as a unified domain of inquiry and the trinocular perspective ensures a systematic accounting of the generality and specificity of projection across the languages. Section 1 specifies our investigation, relating it to the traditional account of quoting and reporting. Section 2 describes our corpus data. Section 3 introduces the theoretical and descriptive categories used to describe verbal and mental projection as a type of logico-semantic relation, using English for illustration. Section 4 presents a crosslinguistic discussion of the data from the six languages. Finally, Section 5 compares and contrasts the results of this study, discusses the general and language-specific features of projection and concludes by commenting on how our approach to quoting and reporting extends previous approaches.

Keywords: projection; quoting; reporting; cross-linguistic; reportative constructions; logico-semantic relation; systemic functional linguistics

Key to abbreviations:

first person 2 second person third person 3 ablative ABL ACC accusative adverbial particle ADV adverbializer ADVLZ AFFR affirmative aspect ASP

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AUX auxiliary
COND conditional
CONJ conjunction
CONV con-verb
COP copula
DAT dative

DEF definite (article)
DEM demonstrative

dual DU **EMPH** emphasis ERG ergative existential verb **EXIST** evidential EVD F feminine focus particle FOC future FUT GEN genitive HAB habitual human HMhonorific HNimperative IMP indicative IND INDF indefinite article Infinitive INF INTJ interjection

INT.FP interpersonal final particle

IPFV imperfective
JUNC juncture
LOC locative
M masculine
MOD modal

NAFFR non-affirmative NEG negative non-future NFUT NH non-honorific nominative NOM object OBJ PASS passive PFV perfective PLplural POSS possessive PROG progressive projection marker PROJ reportative R

PST past
PTCP past participle
Q question particle
REFL reflexive pronoun

PRS

present

REL relativizer
REM remote
SBJV Subjunctive
SG singular
TOP topic
VOC vocative

<>>> enclosed projected clause

1. Introduction

The aim of this study is to examine quoting and reporting of saying and thinking from a cross-linguistic point of view. Previous studies have problematized the use of the terms, direct and indirect reporting, by arguing that the distinction between quotations and reports is not in fact valid across languages, in the sense that not all languages grammatically realize this distinction (cf. Güldemann 2008, D'Arcy 2015). Currently, the term "quotation" or "quotative" has been adopted as a comparative term to refer to both quoting and reporting phenomena across languages. This situation, in turn, blurs the distinction between quotative and reportative constructions in languages that show differences in their realizations. There is, therefore, a need for a more general and inclusive term to subsume this entire phenomenon of quoting and reporting not only of speech but also of thought (and even hoping or wanting). Following Halliday, we will use the term "projection" as a cover term for both quoting and reporting of speech and thought (see Halliday 1985, Halliday & Matthiessen 2014; Ch. 7).

Projection manifests as a clause complex relation where one clause, the "projecting", frames the quoted or reported material, what Güldemann (2008) refers to as "quotative index", and another clause, the "projected", contains the quoted or reported material. The projecting clause may frame or index the projected clause typically as a speech, thought, belief or desire. In each of the clauses in (1) and (2) below (extracted from Achebe's *Anthills of the Savannah*), the initial clause projects the second clause, while in (3), it is the second clause that projects the initial clause.

- (1) Without raising my eyes I said again: 'I am very sorry, Your Excellency.'
- (2) I believe he does.
- (3) 'What is going on?' he demands frantically.

Traditionally, projection has been treated under the heading of complementation where the reported or quoted clause is treated as a complement of the verb in the projecting clause. Since the late 1960s, however, some typological studies have recognized the uniqueness of projected clauses in grammatical systems across languages (Partee 1973, Munro 1982, D'Arcy 2015), with Güldemann (2008) giving a rich comprehensive discussion based on data from African languages. Many of these studies have also discussed that the lexicogrammatical characteristics associated with projection are not limited to verbal processes but are also associated with mental and other process types. Although this systemic perspective of projection is emphasized in systemic functional descriptions of English (e.g. Halliday & Matthiessen 2014) and other languages (e.g. Teruya 1998, 2004, 2007, Patpong 2006, Arús 2007, Bardi 2008, Lavid et al. 2010, Mwinlaaru 2017), it is yet to be studied systematically in the typology literature. This paper, therefore, makes an important contribution to the typological literature by explicating both verbal and mental projection across six genetically unrelated languages, namely, Arabic (Afro-Asiatic: Semitic), Dagaare (Niger-Congo: Gur), Hindi (Indo-European: Indo-Aryan), Spanish (Indo-European: Romance), Japanese (Japonic: Japanese) and English (Indo-European: Germanic). The choice of languages was motivated by the native linguistic backgrounds of the research team, plus English as a typical reference language in studies on projection. Moreover, the languages are typologically varied enough to allow the identification of generalities and specificities in projection.

On the one hand, many grammatical descriptions of Arabic (e.g. Cantarino 1975, Holes 2004, Badawi et al. 2004) and Hindi (e.g. Shapiro 2003) have dealt with projected clauses either as complements in transitive clauses or as subordinate or conjunct clauses. On the other hand, there are comprehensive accounts of projection in the literature, for example, on Japanese (Teruya 2007), Spanish (Ghio & Delia Fernández 2008: 70, Lavid et al. 2010), Arabic (Bardi 2008), Bajjika (Kumar 2009, Kashyap, forthcoming) and, a most recent account of Dagaare by Mwinlaaru (2017). In this paper, we complement their grammatical findings by providing discourse data on the cross-linguistic manifestations of projection. Our cross-linguistic comparison will be guided by Halliday's notion of *trinocular perspective* (cf. Halliday 1996, 2008, Matthiessen 2007, 2013), an approach to the study of a linguistic system (or 'category') from three vantage points. More specifically, we examine projection from the following perspectives:

- (i) A perspective "from above", from the vantage point of the semantics of projection: the two phenomena that are projected, i.e. locutions and ideas; and the differences in the manner of projection, i.e. either quoting or reporting.
- (ii) A perspective "from below", from the vantage point of lexicogrammar: the realization of projection by morphological and/or phonological indicators; whether reporting and quoting are realized differently within and across languages.
- (iii) A perspective "from round about", from the vantage point of the projection itself: the relationship between the projecting clause and the projected clause in terms of taxis or dependency, i.e. whether or not one clause is dependent on the other; the interaction of projection with the grammatical system of MOOD, i.e. the grammatical realization of different speech functions (or "speech acts"), for example, what mood types can be projected; the interaction of projection with the grammatical system of PROCESS TYPES, e.g. the similarities and/or differences between verbal and mental projection (see Halliday & Matthiessen 2014: Ch. 5 on PROCESS TYPES).

These complementary perspectives intend to provide a clear comparative framework for the study of projection across languages while ensuring a holistic account of projection across the languages under examination.

The rest of the paper is organized as follows. Section 2 will briefly describe the data set of the study. Section 3 will discuss projection in English, drawing on Halliday & Matthiessen (2014: Ch. 7). This will in turn contextualize the cross-linguistic description we provide in the subsequent sections and serve as a point of reference since the metalanguage that we use to characterize different language-specific and cross-linguistic differences is English. Section 4 will examine projection across Arabic, Dagaare, Hindi, Spanish and Japanese, considering the three perspectives outlined above. Section 5 concludes our findings.

2. Data sources

The data sets for the present study are derived from variable sources and different in size. Since not all the languages examined here have existing corpora available in the public domain, our data also include data sets that are compiled for our research

purposes or related research. English and Spanish data are drawn from the following corpora: the Mark Davies interface of the British National Corpus (BNC) and Corpus of Contemporary American English (COCA) (Davies 2004, 2008, respectively), and the Corpus de Referencia del Español Actual (Real Academia Española). Similarly, Japanese data are drawn in part from the large balanced corpus, The Balanced Corpus of Contemporary Written Japanese (BCCWJ). Hindi data come from The Corpus of Contemporary Hindi (CCH), which is currently being developed by one of the co-authors of this article. Currently, CCH contains a range of texts, including news report, editorial, interview, public speech, narratives and blogs. As for Arabic and Dagaare, text archives have been compiled: the Arabic archive, which comprises a mixture of poetry and prose, includes a vast selection in both classical and Modern Standard Arabic. The collection in classical Arabic extends from the pre-Islamic era to the fourth-century of the Islamic calendar. The Modern Standard Arabic collection includes contemporary novels and newspaper and magazine articles published across the Arab world. The archive also includes audios and videos of movies and plays in dialects spoken in a variety of Arab countries. The Dagaare text archive comprises spoken discourse data of about 65,000 words, including conversations, interviews and panel discussions, workshop reports, movies and an unscripted play. This archive forms the Lobr Dagaare component of the Niger-Congo Archive of Languages (NiCAL-DGL) that is currently being developed at the University of Cape Coast. This archive is supplemented by a few passages from biblical texts.

3. The grammar of projection in English

Projection is one of the two major types of logico-semantic relationships available to speakers, together with expansion. While in expansion, the phenomena represented by the primary and the secondary clause are related "as being of the same order of experience" (Halliday & Matthiessen 2014: 443), in projection the phenomena related belong to different orders of experience, as what is quoted or reported is brought into existence by the saying or the thinking of the projecting clause. This can be seen by comparing the expansion relationship between the primary (α) and the secondary (β) clause in (4) to the projection relationship illustrated by (5).

- (4) $[\alpha:]$ They exchanged photographs $[\beta:]$ before they met
- (5) $[\alpha:]$ I explained $[\beta:]$ that she was merely a listener

Halliday & Matthiessen (2014: 509–11) identify the following projection systems: (i) LEVEL OF PROJECTION (idea [mental] vs. locution [verbal]); (ii) MODE OF PROJECTION (reporting [hypotactic] vs. quoting [paratactic]; and (iii) SPEECH FUNCTION (proposition [statements and questions] vs. proposal [offers and commands]). Examples (6–13) illustrate all the possible co-selections from the three projection systems.

- (6) *Verbally quoted proposition*: That was probably the turning point, said the former champion
- (7) Mentally quoted proposition:

 If ever a house cried out for a woman's hand, thought the lady dramatically, this was it!

- (8) *Verbally quoted proposal:* 'Now, give me a letter 'A',' commanded the teacher
- (9) Mentally quoted proposal: but I shall not believe that, thought Fenella
- (10) Verbally reported proposition: Emily explained that this had once been a riding school
- (11) Mentally reported proposition: Rachel believed that mechanistic science could explain all phenomena, even those of the heart and soul
- (12) Verbally reported proposal:
 I told them to say we weren't interested
- (13) *Mentally reported proposal:*They wanted it to come as a sudden surprise

An important difference between expansion and projection is that in the latter, paratactically related clauses do not have a fixed order, i.e. the primary (or projecting) clause may precede or follow the secondary, as illustrated by (14a, b). The primary clause is in fact often placed not before or after the quote but inside (15).

- (14) a. As the victims fell, a white policeman yelled: 'Christ, the troops are out of control. They're going mad.'
 - b. 'Mind where you're goin'!'yelled the angry driver.
- (15) 'Good heavens!'he exclaimed. 'What a superb collection!'

The contrast between expansion and projection in hypotactically related clauses is quite the opposite from parataxis. Here, the order is very rigid in projection, with the primary clause preceding the secondary, whereas there is great reversibility in hypotactic expansion. Compare the examples of expansion in (16) with the projection in (17), which cannot be reversed.

- (16) a. α I fled back to the sitting room β before they could try and kiss me
 - b. β Before they could move, α someone pushed past them and shambled off down the corridor
- (17) a. α The Judge declared β that the foundation to this treason was setting up a false religion
 - b. * β That the foundation to this treason was setting up a false religion α the Judge declared

Unlike in expansion, different kinds of projection are not associated with different conjunctions: *that* is the conjunction typically used in the hypotactic projection of propositions (see examples (10) and (11) above), mostly in writing as it is usually left out in speaking. The co-selection of reporting and proposal, on the other hand, does not take a conjunction either in writing or in speaking (see (12) and (13) above). Parataxis is in turn marked in writing by punctuation, e.g. the quotation marks in (6) and (8) above, though not necessarily (see 7 and 9). The level, mode and speech function of the projection is thus in general not determined by the conjunction employed, as in the kind of expansion, but rather by the process type – either mental or verbal, but not material or relational – and the grammatical configuration of the projected clause.

Verbal processes are more likely to quote than mental processes, although quoting does also happen among the latter as in (18). Some processes are a blend of verbal and mental, e.g. "telling oneself" is a verbal act in which the actual words are often not

uttered; therefore, the projected clause could be interpreted either as a verbal locution or as a mental idea. This is illustrated by (19).

- (18) I've got to know, he thought
- (19) 'Too late', Gazzer told himself, 'I should have listened!'

On the other hand, hypotactic projection pervades both mental and verbal TRAN-SITIVITY. Projected ideas appear as indirect thought (20), whereas projected locutions are presented as indirect speech (21). The projected clause, the same as seen in parataxis above, refers to one of the four speech functions of statements, questions, offers or commands (e.g. (20)–(23), respectively, where mental and verbal processes are alternated).

- (20) He thought that the prairie grassland climax had been stable since the last ice age
- (21) She asked if anything was the matter
- (22) She decided she would tell Angel all her history
- (23) She ordered them to make a tiny boat with sails

Say is the default projecting verb in verbal processes both in hypotaxis (24) and in parataxis; likewise, there are specific verbs for quoting or reporting the different speech functions, although they cannot always be used for both modes of projection (see Halliday & Matthiessen 2014: 526). Examples (21) and (23) above illustrate typical verbal processes of asking and commanding, respectively, whereas (25) and (26) do likewise with stating and offering, respectively (for a comprehensive list, see Halliday & Matthiessen 2014: 514, 523).

- (24) Dr Hendron said it was time for political talks to be re-activated
- (25) Ginger then explained that Sam had taken away his girl, who claimed to be pregnant.
- (26) They offered to take her down to the sea, so off they went

Think is the general mental verb for the projection of all speech functions (see its use in (7) and (9), above). Statements are also projected by a set of mental verbs such as believe or know ((27) and (28)); verbs often projecting questions are wonder and forget (29, 30), whereas offers and commands are often projected by intentional verbs such as would like and want ([31] and [32]; see Halliday & Matthiessen (2014: 517) for a more comprehensive list).

- (27) She firmly believed that her life as a royal was over
- (28) I know that one shouldn't mix business with pleasure
- (29) She wondered whether she would find enough to discuss with a stranger to fill the evening
- (30) Riven forgot why he had come
- (31) He would like her to bring some spiritual qualities to the performance
- (32) I wanted you to have tea

It is important to differentiate between projections and fact clauses such as those in (33)–(35); fact clauses are not projected, i.e. not created by saying or sensing, but rather pre-existing entities that fulfill the function of Phenomenon, i.e. "that which is felt, thought, wanted or perceived" (Halliday & Matthiessen 2014: 251). Fact clauses may be introduced by *the fact*, *the possibility*, *the necessity*, etc., as explained by Halliday & Matthiessen (2014: 540–41) and as illustrated by (34) and (35).

- (33) I regret that certain people were unable to accept the majority decision of the executive
- (34) She didn't like the fact that the wallet still hadn't been given back to her
- (35) We considered the possibility that the client might be not one individual

4. The grammar of projection across languages

This section examines the similarities and differences in projection in the six languages under study. The discussion will focus on the research questions stated in the introduction. The issues to be discussed are how projection is realized, in terms of the specific markers associated with it (Section 4.1), the differences in the realization of reporting and quoting (Section 4.2), the commonalities and differences between verbal and mental projection (Section 4.3), the relationship between the projecting and the projected clause in terms of taxis or clause complex relations (Section 4.4) and the interaction between projection and mood, the grammar of speech acts (Section 4.5).

4.1. Realization of projection

Projection is realized differently both within and across languages and it normally overlaps with resources of the modal assessment system of evidentiality (cf. Matthiessen & Teruya 2014). These range from the use of particles placed prosodically in clause initial or final position as in Korean and Japanese (see Teruya 2007 for Japanese; Ahn & Yap 2015 for Korean) to clause complex nexus. The common realization of projection among the languages under study is through a clause complex. Illustrations are given for English, Arabic, Dagaare, Hindi, Spanish and Japanese in (36)–(41) below in their respective order:

- (36) a. [α:] She firmly believed[β:] that her life as a royal was over
 b. [α:] The CAB is asking [β:] if the door is as wide open as it could be
- (37) a. [1:] wa man qa:la and who say-MSG:PFV
 - [2:] ?inna ?aTTu:fa:na sayusallimu
 that/indeed DEF-flood-MSG.ACC 3MSG:FUT-surrender
 nafsahu liyadayka?
 self-FSG-his-POSS-3MSG.NOM to-hand-FDU-your-POSS.2MSG.ACC?
 'And who said [that/ certainly] the flood would surrender to you?'

[Arabic]

b. [α:] *?umirtu* order-1sg:PFV-PASS

[β:] ?an ?aGbuda rabba hadhihi that 1sg:sbjv-worship God-msg.acc this-dem-fsg ?albaldati Def-town-fsg.gen

'I have only been commanded to worship the Lord of this city.'

[Arabic]

- (38) a. [1:] À Pier tì kàbr à yèl

 DEF Peter PST.REM gesture.PFV AFFR say.PFV
 - [2:] $k\acute{\epsilon}$ $b\acute{\epsilon}$ $b\acute{\epsilon}r$ $g\grave{\supset}m\grave{\epsilon}.$ PROJ 3PL stop.PFV noise

'Peter gestured that they should keep quiet.'

- b. [1:] $D\grave{a}v\acute{u}ir$ $t\grave{\iota}$ $y\grave{e}l=\iota$ \grave{a} \grave{v} $y\grave{a}w$ David PST.REM say.PFV=FOC DEF 3SG sake
 - [2:] **ké**: "Î tì nyề nì à Sórè v̀ bè

 PROJ 1SG PST see.PFV FOC DEF Lord 3SG EXIST.PFV
 à ĩ nìŋé kừràle."

 DEF 1SG front forever

'David said about him that: "I saw the Lord leading me forever ...""

[Dagaare: Lobr]

- (39) a. [α:] lekin koī nahĩ jān-tā but anyone NEG know-HAB
 - [β:] ki khud sarkār ne hī us-se apne PROJ self government ERG EMPH that-ABL self kadam pīche kyō khīc liye. step back why pull ASP.PFV

'But no one knows why the government itself stepped back.'

- b. [α :] vipaksh ne pūch-ā opposition ERG ask-PFV
 - [β:] ki kyā sarkār duśman ke ākramaṇ kā intazār
 PROJ Q government enemy of attack of wait
 kar rah-ī hai?
 do PROG-PFV.F AUX.PRS

'The opposition asked if the government was waiting for the enemy's attack.'

[Hindi]

- (40) a. $[\alpha:]$ *Me* preguntó $[\beta:]$ (que) si estaba dispuesta. 1SG.DAT ask-PST PROJ if be-PST.1SG ready-F.SG 'He asked me (that) if I was ready.'
 - b. [1:] *¡Esa descripción parece la de un*DET.F.SG description seem-PRS.3SG DEF.F.SG of INDF.M.SG

 pterodáctilo!,

 pterodactyl
 - [2:] pensó el escritor think-PST.3SG DEF.M.SG writer

'This description looks like that of a pterodactyl, thought the writer.'

[Spanish]

```
(41)
          [a:] Ore wa
                I-TOP
                << tanbo
           Γβ:1
                                   hatake o
                                              jibun no
                                                         mono
                                                                da
                                                                      to >>
                             va
                    paddies
                             and fields-ACC
                                              self-GEN
                                                         thing
                                                                COP
                                                                      PROJ
                kangaeta
                thought
           'I thought the paddies and fields were my own'.
          [a:] Ranko ga
                              keikantachi ni
                Ranko-NOM policemen-DAT
           [β:]
                << akari o tsuketekureru voo >>
                                                    tanonda.
                   light-ACC turn on
                                          PROJ.R
                                                    asked
           'Ranko asked the policemen to turn on the light.'
```

[Japanese]

As the examples show, there are specific lexicogrammatical markers that signal projection across the languages. Reports can be introduced in English by the conjunction that, more in writing than in oral speech, except when reporting a question through a wh-interrogative or if-clause, where that cannot be used (36b). Spanish uses the particle que, which can only be optionally ellipsed in front of reported wh- or if questions (40a). Dagaare uses the particle $k\varepsilon'$ (or the phonologically reduced forms k= and $-\varepsilon'$) typically to introduce reports (38a), but it can also be used to introduce quotes as in (38b). Hindi, in turn, uses a reportative particle ki to mark reports, even in wh-lif-clauses (39b). As in English, the particle is sometimes dropped in Hindi conversation. In Japanese, the quotative particle to (or tte in spoken) is used to mark off the preceding clause as the projected idea or locution. In the projected indirect command, however, the auxiliary element yoo "(be sure to)" is used and signals its reportative nature.

In Arabic, ?anna, ?inna, ?in or ?an are the particles used to introduce a report. When ?inna is used, one cannot say for certain whether the projected part is relayed word for word or whether it is paraphrased as it is typically construed by an independent clause and consequently the distinction between quoting and reporting may become ambiguous (see (37a) above).

In addition to the realization through clause complex, Arabic can realize projection at clause simplex level, with the projected idea represented as circumstance of Matter that can even have a projection marker (i.e. ?anna or ?an) as in "fi:?an taHDa: bimaDharin faxmin" in (42) below which literally translates into 'in that my return should benefit with a lavish appearance.' The circumstantial segment can be as complex as a clause, the only difference between the clause complex and these circumstantial realizations is the preposition that ties what is being projected to the projecting clause (42). The circumstance here serves as an alternative realization of projection in construing reports.

```
(42)
       fakkartu
       think-1sg:PFV
       fi:
             ?anna
                      Gawdati:
                                       yajibu
                                                             ?an
                                                                   taHDa:
       in
             that
                      return-FSG-my-
                                        3MSG:IPFV.PASS-
                                                            that
                                                                   3FSG:SBJV-benefit
                      POSS, 1SG, GEN
                                       have-to
       bimaDharin
                                         faxmin
       with-INDF-appearance-MSG.GEN
                                         INDF-luxirious-MSG.GEN
       'I thought that my homecoming should be celebrated with style.'
       Process-(Senser)
                            Circumstance: Matter
```

[Arabic]

4.2. Differences between reporting and quoting

Across all six languages, there is generally no specific morphological marking that distinguishes between reporting and quoting. In other words, there are no distinct quotative and reportative markers. However, some of the particles introducing projected clauses have special characteristics and may occur more frequently in one form rather than the other. For example, in Dagaare, while the projection marker $k\varepsilon'$ or its clitic form $(k=\text{ or }=\varepsilon')$ is normally required in reports, its use in quotes is optional (see (38b), above). In Arabic, the particle *?inna* can indiscriminately introduce a report or a quote. In fact, without a clear context, it is often extremely hard to tell whether the projected part it introduces is a quote or a report. Likewise, English is characterized by the recruitment of *like* as a quotative marker, what Buchstaller (2014) calls "innovative quotatives", as shown by (43) below, taken from the *Corpus of Contemporary American English* (COCA, Davies 2008-).

(43) [1:] And she was like, [2:] I'm so sorry

Rishi

apnī

Kapoor

hāt

one

kah-ne

Quotes are typically signaled by pauses between the projecting clause and the projected clause and this is captured in writing by quotation marks and other punctuation markers such as commas, hyphens and colons in all six languages, as illustrated by (7–11).

(44) [1:] 'Now, give me a letter 'A',' [2:] commanded the teacher

```
(45)
        [1:] wa
                      baGda
                                   gali:lin
                                                             qa:lat:
            and
                      after
                                  INDF-little-MSG.GEN
                                                             say-3FSG:PFV:
        [2:] "Haddithni:
                                                  Ganha:. ...
             "tell-IMP:2MSG-me-OBJ.1SG.GEN about-her. ..."
        'And after a while she said: -"Tell me about her. ..."
(46)
                        sèb =à
        [1:] B\dot{\varepsilon}
                                                                                     [Arabic]
               3PL.HM
                        write.PFV=AFFR
        [2:]
               kέ:
                        "fú
                                       kñ
                                                       ί
                                                                  à
                                                                        fὺ
               PROI
                        2s<sub>G</sub>
                                      NEG.IND.FUT
                                                       do.PFV
                                                                  DEF
                                                                        2s<sub>G</sub>
               Sórè
                        Nàaŋmìn
                                       kàa
                                                       1."
               Lord
                        God
                                       check.PFV
                                                       NAFFR
        'They have written that: "you will not test the Lord your God."
                                                             [Dagaare: Lobr]
(47)
        [1:] Razā Murād
                                       kah-\bar{a},
                                ne
              Raza Murad
                                ERG
                                       say-PFV
        [2:]
              'Riśi
                      kapūr
                                ek
                                          āzād
                                                 nāgrik
                                                            hai-N,
                                                                            un-hNe
```

self matter say-INF of right COP.PRS 'Raza Murad said, 'Rishi Kapoor is an independent citizen and he has a right to express his opinion''

citizen

adhikār

hai'.

[Hindi] (48)"en la representado pueblo", [1:] Duma está be.PRS represent.PTCP in DEF.F.SG Duma DEF.M.SG people elpresidente [2:] dijo DEF.M.SG president say.PST

free

kā

"in the Duma is represented the nation", said the president."

[Spanish]

COP.PRS-HON 3SG.DAT.HN

In Hindi, as shown in (47) above, the quoting and quoted clauses are additionally separated by a comma. However, the presence of such markers is not obligatory in any of the six languages. In classical Arabic, citations are normally presented without quotation marks or any punctuation.

Another issue has to do with the order of the projecting and the projected clauses in reports and quotes. Among our language samples, there is a strong cross-linguistic tendency for reports to be progressive, i.e. reported clauses to follow the reporting clause except in Japanese where the ordering is, all things being equal, always regressive as in (41); even though the theme of the reporting clause may come before the reported clause, its clause-final reporting process always follows the reported clause. However, there is a flexible variation with quoting in relation to this phenomenon. As illustrated by (49) and (50), quotes can be either progressive or regressive, with the quoting clause preceding or following the quotes in English and Spanish, and to some extent in Arabic (51a) and (51b).

- (49) a. As the victims fell, [1:] a white policeman yelled: [2:] 'Christ, the troops are out of control. They're going mad.'
 - b. [1:] 'Mind where you're goin'!' [2:] yelled the angry driver.

```
(50) a. [1:] ella entonces exclamó: [2:] -Ah, sí, perdona 3F.SG then exclaim-PST.3SG ah yes sorry 'and she then exclaimed: -Oh, yes, I'm sorry.'
b. [1:] "¿Qué solución se os ocurre?",
```

what solution REFL 2PL.DAT occur-PRS.3SG

[2:] preguntó la profesora ask-PST.3SG DEF.F.SG teacher

"what solution can you think of", asked the teacher."

[Spanish]

```
(51) a. [1:] - "la: ma:niGa, la: ma:niGa
- "NEG INDF-objection-MSG.ACC NEG INDF-objection-MSG.ACC ?abadan,"
ever,"
[2:] ga:la ?alGami:du
```

[2:] qa:la ?alGami:du say-3MSG:PFV DEF-dean-MSG.NOM - "I don't mind, I don't mind at all," the dean said."

b. [1:] sa?alani: biSalafin:

ask-3MsG:PFV-me-OBJ-1SG.GEN with-INDF-arrogance-MSG.GEN

[2:] - ma:dha turi:du?
-"what 2MSG:IPFV-want?"

'He asked me with arrogance: "what do you want?""

[Arabic]

In Hindi (52) and Dagaare (53), however, the quoting clause always precedes the quoted clause. As discussed in Section 3, English may also embed the quoting clause within the quoted clause (see (15)). This is also possible in Spanish (54) and in Arabic (55) and in Japanese, to a lesser extent, but not in Dagaare or Hindi.

(52)mamtā banarjī ne katākshpurn lahje meN kah-ā, ERG with.insinuation tone Mamta Baneriee LOC sav-PFV big bazār kā hamāre deś kā pradhānmantrī bps Big Prime.Minister Bazar of boss our country **POSS** hogay-ā hai.' happen go-PFV AUX.PRS 'Mamta Banerjee said in a tone of insinuation, 'our Prime Minister has become the boss of Big Bazaa'.' [Hindi] Ù (53)[1:1 tì là na laugh.PFV 3SG PST.REM AFFR [2:] kέ tìɛrè: CONJ think.IPFV [3:] "À sầan bὲ màal bầw ì visitor know.PFV 1s_G DEF NEG.IND.NFUT ADV DEF nùɔr ε." yómè number vears NAFFR 'S/he laughed and was thinking: "The visitor doesn't know my age well." [Dagaare: Lobr] (54)[1:] A través de hechos como éste [2:] –prosiguió Molinscontinue-PST.3SG Molins Through acts like DEM.M.SG [1':] se puede estar planteando un IMP can-PRS.3SG be-INF propose-PROG INDF.M.S pulso alEstado wrestle to-DEF.M.SG State 'Through acts like this – continued Molins – one could be challenging the State.' [Spanish] (55)[1:] "xila:fa:tun? bayni: INDEF-disagreement- FPL.NOM between-MSG-my- POSS.1SG.GEN bavnaka?" and between-MSG-your-POSS.2MSG.ACC [2:] *qa:la* [3:] *wa* gahgaha. say-3MSG:PFV and laugh-3MSG:PFV [4:] "ka:nat tilka muHaffiza:tun, be-3FSG:PFV that-3FSG.DEM INDEEF-incentive-FPL.NOM ya: Gala:u..."

[Arabic]

In reports, the ordering of the reporting clause followed by reported clause is fixed in English, Arabic, Dagaare and Hindi (56–59). As already mentioned, in Japanese, reports and quotes have the same ordering in that both reporting and quoting clauses always come after the reported and the quoted clause.

"Disagreements between you and me" he said and laughed loudly. "These

o-voc.PTCLE Alaa.VOC.NOM

were more like incentives, my dear Alaa..."

- (56) [α:] The Judge declared [β:] that the foundation to this treason was setting up a false religion
- (57) [α:] *ka:nat tas?aluhu* be-3FSG:PFV 3FSG:IPFV-ask-him-OBJ-3MSG.NOM *?ummi:* mother-FSG-my-POSS.1SG.GEN
 - [β:] ?in ka:na qad ra?a: ?aHla:man that be-3MSG:PFV OPERATOR see-3MSG:PFV INDF-dream-FPL.ACC 'My mother used to ask him if he had any dreams.'

(58)[1:] Τí yél 1pt. say.PFV [2:] kέ . Òrbílì dèmè, kùɔbὲ ànì na PROJ Orbili people farmers eight REL yί Òrbílì рùэ a, tì na. Orbili be:from JUNC PST.REM be:among AFFR 'Let's say that Orbili people, eight farmers [[who are from Orbili]] were among.'

[Dagaare: Lobr]

- (59) [α:] *pote ne batā-yā* grandson ERG tell-PFV
 - $[\beta:]$ kido mahine se gharī kī suī paune PROJ two month from clock POSS niddle quarter 9 baje par hī atkī huī hai. 9 o'clock LOC EMPH stuck PFV AUX.PRS

'The grandson told that for the past two months the hand of the clock was stuck at quarter to nine o'clock.'

[Hindi]

[Arabic]

In Spanish, however, although the order of reporting clauses followed by reported clause is still a high tendency (60), casual conversation occasionally shows reversibility (61).

(60) [α:] *Yo creia*1.sG believe-PRS.1sG

[β:] que los catalanes lo Celebraban todo
PROJ DEF.M.PL Catalans 3M.SG.ACC Celebrate-PST.3PL all
con cava
with cava

'I thought that Catalans celebrated everything with cava.'

[Spanish]

(61) [β:] *que vengas*, [α:] *dice mamá*PROJ come-PRS.SBJV.3SG say-PRS.3SG mum

'that you should come, mum says.'

[Spanish]

As said above (see (37a)), there are cases in Arabic when quoting and reporting are not clearly distinguishable from each other. This typically occurs when *?inna* is used. As *?inna* is a particle that construes an emphatic rather than subordinating meaning, when it occurs in projected clauses, it is impossible to tell whether what is being projected is a quote or a report (62).

(62) [α:] *qa:la* shiha:bun say-3MSG:PFV shihab-NOM

[β:] ?inna ?ummahu ka:nat indeed mother-FSG-his-POSS-3MSG.NOM be-3FSG:PFV GHajariyyatan INDF-gypsy-FSG.ACC

'Shihab said his mother was a gypsy.'

[Arabic]

In example (62), the projected clause can be either a quote or a report. Out of context, there is nothing that indicates whether or not these were the exact words the speaker said.

4.3. Verbal and mental projection

We proceed to examine the similarities and differences between verbal and mental projection. In this respect, we already discussed in Section 3 that quotes in English are primarily associated with verbal processes. This is also the case with the rest of the languages under study, as literal wording in principle presupposes the actual utterance of those words. However, as in English (see (18), (19) in Section 3 above), in Dagaare (53), Hindi (63), Spanish (64) and Japanese (41a), verbs that are equivalent to English "think" can project and also occur with quotes. Similarly in Arabic, it is possible for quotes to be construed by verbal processes equivalent to "think" in English (65a).³ It is also possible for reports to occur with mental processes equivalent to "say" such as "notice" or "observe," as illustrated by (65b) below, where the mental process "observe" is used to mean "comment"/ "say". In fact, when a quote accompany a mental process such as observe (65b), these processes come to entail the meaning of "saying" while verbal processes such as "say" (65a) come to represent the meaning of "thinking". The semantic shift in the nature of the projecting process is quite similar to that in English, when processes such as "observe" and "notice" are used to project verbally instead of mentally and processes like "say" project mentally as in "he said to himself" (e.g. 19 vs. 65a).

(63) [1:] 'āj maĩ cāh-kar bhī apnī beti-võ ke=live today 1sg want-conv also self daughter-PL for acche sampann ghar kā svapn nahī dekh sak-tā.' good well.off house of dream NEG MOD-HAB see [2:] Dadan ne $h\bar{i}$ man soc-ā. man Dadan ERG heart EMPH heart think-PFV

"I cannot dream of a good and well off family for my daughters today even if I want it." Dadan thought within himself."

[Hindi]

(64) [1:] *Y* entonces pensó Ipi con dulzura:
And then think-PST.3S Ipi with sweetness

[2:] "En verdad que eres tonto, flautista..." really that Be.prs.3s stupid flutist

'And then Ipi thought with sweetness: "you really are stupid, flutist...""

[Spanish]

(65) a. [1:] qultu fi: nafsi:

say-1sg:pfv in self-fsg-my-poss.1sg.gen

[2:] [2:] "?innahu na:?imun

"indeed-he INDF-asleep-MSG.NOM

[3:] lakinna ?ashshaxi:ra yataGHayyaru" but DEF-snoring-MSG.ACC change-3MSG:IPFV

'I thought "he is sleeping but the snoring changes patterns."

b. [\alpha:] wa qad la:HaDa jama:l sa:lem
and OPERATOR notice-3MSG:PFV jamal salem
(?aHadu qa:dati ?alDHDHubba:ti
(INDF-one-MSG.NOM INDF-leader-MPL.GEN DEF-officer-MPL.GEN
?al?aHra:ri) sa:xiran

DEF-free-MPL.GEN) INDF-mockingly-MSG.ACC

[β:] ?anna ?aSSaHa:fata ?aSbaHat that DEF-press-FSG.ACC become-3FSG:PFV tamdaHu ?assikkata ?alHadidiyyata... 3FSG:IPFV-exhalt DEF-rail-FSG.ACC DEF-iron-FSG.ACC...

'Jamal Salem (one of the leaders of the free officers movement) has observed sarcastically that the press started making compliments about the railways...'

[Arabic]

'H thought, "it's scary if everybody says the same thing".'

[Japanese]

In the Japanese example (see example (66)), the projected idea is clearly that of quote, for it carries one of the interpersonal clause final particles, *naa* (exclamation), which is one of the features of spoken Japanese; they add negotiatory or attitudinal value, of emphasis in this case, to a free independent clause.

In contrast to mental processes, verbal processes both quote and report extensively in all language samples, as illustrated in the different examples throughout this paper, the choice between quoting and reporting in the environment of the verbal process often depends on different registers or text types. For instance, we can arguably expect fiction to be more dominated by quotes, in proportion to reports, than news reports and in these the proportion of quotes with respect to reports is expected to be higher than in minutes of meetings and historical accounts (cf. Matthiessen 2015). Further research is, however, needed to validate these tendencies.

4.4. Relationship between projecting clauses and projected clauses

Regarding the relationship between the projecting and the projected clause in terms of taxis, quoting in English and Spanish is always paratactic and reporting is always hypotactic. In these two languages, paratactically related clauses are free clauses that have the status of an independent speech act, whereas hypotactically projected clauses often shift in tense and deixis, as illustrated by (67) and (68). For example, in (67), the report [β:] is in the conditional where the presupposed actual thought would have been in future and both *she* and *her* would have been *I* and *my* if the given clause was a quote. In the projected hypotactic reporting clause in (68), the tense shifts from present to past and the deictic from second to third person. In other words, hypotactic projection preserves the orientation of the projecting clause (Halliday & Matthiessen 2014: Ch. 7).

(67) [α :] shedecided [β :] shewould tell Angel all her history

```
    (68) [α:] A David le preguntaron
        to David 3sg.DAT ask-PST.3PL
        [β:] si conocía a algún filósofo alemán
        if know-PST.3sg to any philosopher German
        'David was asked whether he knew any German philosopher.'
```

[Spanish]

In Hindi, quoting is also always paratactic and reporting hypotactic; yet, although reports are dependent on the reporting clause with respect to taxis, there is no impact of the reporting clause on the status of the reported clause in terms of tense or deixis. Thus, in (69), the verb *uthayenge* ('will raise') in the report retains the future tense, marked by the future tense morpheme *-ge*, which corresponds to the original utterance being reported. This contrasts with the English translation, which illustrates the point we have already made, i.e. the shift in tense, e.g. from *will* to *would*, the reported-nature of the projected utterance.

```
(69)
       [a:] unhõ-ne
                          redio
                                 pākistān se
                                                 kah-\bar{a}
            3SG.HN-ERG Radio Pakistan
                                          ABS
                                                 sav-PFV
       [β:] ki
                               masle
                                                           level
                   vah is
                                       ko
                                             intarneśnal
                  3sg dem
            PROJ
                              matter DAT international
                                                           level
            par
                  utha-yen-ge
            LOC
                  raise-1-FUT
       'He said to Radio Pakistan that he will (=would) raise this issue at
       the international level.'
```

[Hindi]

In Japanese, there is a clear distinction between quoting and reporting when the projected clause is a question or a command as grammatical realizations of these speech functions are different between quotes and reports. For example, in (70), indirect speech function of command is realized by an auxiliary yoo '(be sure to)' as in yooisuru yoo 'to prepare' that contrasts with its direct version realized by the imperative form, vooi-shiro 'Prepare!'.

However, when statements are projected, the distinction between quotes and reports becomes indeterminate unless there exist dialogic features of spoken Japanese such as clause final particles, vocatives and politeness, all of which generally stand for quoted speech. Having said that, unlike our other language samples, Japanese operates with grammatical evidentials (Aikhenvald 2004, Teruya 2007) when it comes to distinguish an indirect statement, i.e. reports, from that of a direct statement, i.e. quotes, as in (70). In the environment of statements, evidentials thus assign the feature of "hearsay", e.g. soo "they say, it is said that" as in (71), to what is otherwise an ambiguous statement in terms of the source of information.

(70)[a] Jooriku-suru kara senchoo ni $[\beta:] \le booto o yooi-suru yoo$ will land so captain DAT boat ACC prepare-yoo: sure to [a cont'd:] itte kure. say please

'Please tell the captain to prepare a boat as we are going to land.' [Japanese]

(71)Senshijidai niwa, mono o horu no wa on'na no Prehistoric ages LOC TOP, things ACC dig NOM TOP women GEN shigoto de atta soo da. work COP was EVID COP

'It is said that in the prehistoric ages, digging up things was women's job.'

[Japanese]

On the other hand, in Dagaare, the projecting and projected clauses are always related paratactically both in quoting (72a) and reporting (72b) environments:

```
(72)
          [1:]
                  ()
                          s \hat{o} w r = i
                                                               pò-tùurbè:
       a.
                                               à
                                                       ù
                                                               back-followers
                   3sg
                          ask.PFV=FOC
                                               DEF
                                                       38G
           [2:]
                   "À
                                      zìe
                          níbè
                                               a,
                                                       àа
                                                               nì
                  DEF
                          people
                                      place
                                               JUNC
                                                       who
                                                               COP.FOC
                                      Bìe?"
                  à
                          Nísàal
                  DEF
                          human
                                      child
            'He asked his followers: "For the people, who is the Son of Man?""
       b. [1:]
                 Fὺ
                        sầa
                                v e l (=a)
                  2sg
                        father say.PFV=AFFR
                        fὺ
                              kiil = i
           [2:] k\varepsilon
                                                    vìr.
                        2sg go:home.pfv=foc
                  PROI
                                                    house
           'Your father said you have gone home.'
```

[Dagaare: Lobr]

A comment needs to be made here on the paratactic relationship between projecting and projected clauses in Dagaare, particularly in the environments of reporting. The first point can be made with reference to the characteristics of bound clauses. In Dagaare, a bound clause cannot take an information focus particle, which is required for a (corresponding) free clause nor can it occur with negotiation particles, such as the affirmative (na) or non-affirmative (t, e) particles, which are obligatory elements in a (corresponding) free clause (cf. Mwinlaaru 2017: 98–106). Thus, while the projected clause [2] in (72b) is a free clause and has the information focus particle =t, the first clause in (73) is bound and cannot take a focus marker on a yir ('the house'). In terms of taxis, therefore, the clauses in (72a) are related paratactically while those in (73) are related hypotactically. In this sense, projected clauses are clearly grammatically distinct from bound clauses (in this case, clauses functioning as complements) in Dagaare.

(73) [
$$\beta$$
:] $F\dot{v}$ na $k\dot{u}l$ \dot{a} $y\dot{r}$ a, 2SG ADVLZ go:home.PFV DEF house JUNC [α :] \dot{i} $p\dot{\imath}\epsilon n\dot{\imath}$ na. 1SG rest.PFV AFFR 'When you went home, I had a rest.'

[Dagaare: Lobr]

The projection particle $k\varepsilon'$ is a conjunctive marker specific to projection, that is, both a quotative and a reportative marker. As shown in the underlined clause in (74), it introduces a projected clause, specifically, a reported clause, where the reporting clause is assumed.

```
(74)
         A:
             Dèr
                           i!
              Der
                           VOC
         B:
              Ooi!
              INTJ
         A:
              kέ
                           fὺ
                                       <u>dì</u>
                                                         <u>na</u>?
                            2sg
              PROI
                                       eat.PFV
                                                         AFFR
         A:
              Der!
         В
              Yes!
         A:
              '(Someone is asking) that have you eaten?'
```

[Dagaare: Lobr]

Any native speaker of Dagaare will interpret the underlined clause in (74) as a reported clause and that the source of the proposition is presupposed. This tendency of the projected clause to occur with a covert projecting clause supports its interpretation as a free independent clause. The projection particle tte in Japanese functions similarly to that of Dagaare. It is attached to the end of an independent clause and expresses the meaning of hearsay, thus the given clause becomes a report as in Iku tte "(they say, s/he) will go".

In Arabic, the relationship between quoting and parataxis and reporting and hypotaxis is quite defined. However, realizational differences in tense and deixis depend on the projecting verb and the way one chooses to report a proposition or a proposal. For example, if we are reporting a yes or no question and choose to use *qa:la* ('he said'), one of the options available is not to make any grammatical changes to what is to be reported and to relay it paratactically. One might even mimic the voice and the tone of the Sayer. However, if we choose to use sa?ala ('he asked'), then we need to use ?in as in sa?alani?in 'he asked me if' in (75) below. In this case, the report is hypotactically related to the projecting clause and consequently a few changes in tense and deixis will have to be made as illustrated by (75), where *kuntu* ('was- Π '), is actually *hal*? anta ('are-[you]?') in the original question.

```
(75) [α:] sa?alani:
           ask-3MSG:PFV-me-OBJ-1SG.GEN
          ?in kuntu
                            ?ainabivvan
                be-1sg:pfv INDF-foreigner-Msg.acc
     'He asked me if I was a foreigner.'
```

[Arabic]

Similarly, in an example such as (76), the only indicator that this is a report is the Sayer in the projecting clause, i.e. *People*: when people in a crowd speak, they do not all say the exact same words. So we assume that what is projected is the gist of what these people said and therefore the projected clause is a report.

```
(76)
      [1:] qa:la
                           lahum
                                          ?anna:su
            say-3MSG:PFV
                           to.them-3MPL DEF-people-MPL.NOM
                                        qad
      [2:] ?inna
                                                   iamaGu:
            indeed
                   DEF-people-MPL.ACC OPERATOR gather-3MPL:PFV
            lakum
            to.you-2MPL
      '[Those] unto whom men said: Lo! the people have gathered against you.'
                                                                        [Arabic]
```

Within hypotactic projection, it is important to also consider those cases in which quoting and reporting merge, as is the case with free indirect speech, where, as described by Halliday & Matthiessen (2014: 476) for English, "the projected clause is set up as a reported clause introduced by the binder that but quoting is then introduced at some point in the development of the clause". This is possible in all six languages, as illustrated by examples (77)–(86).

[Japanese]

blaming delays on "leaves on the line" – explained [β:/2:] that lost trains did "occasionally occur" (78) $[\alpha:/1:]$ tagu:lu ?almaSa:diru 3FSG:IPFV-sav DEF-course-FPL.NOM $[\beta:/2:1]$?inna mushkilataha: "maGa: indeed problem-FSG-her-POSS-3FSG,ACC with ... ?assaGu:diyyati HaSran", ... saudi-arabia.GEN INDF-exclusively.ACC", ... 'The sources confirmed that it has got issues "exclusively with Saudi Arabia", ...' $[\alpha:/1:][\beta:/2:]$ [Arabic] $[\alpha:/1:]$ Be $s\varepsilon b = a$ (79)3PL.HM write.PFV=AFFR kε: "fv kυ $[\beta:/2:]$ а PROI 2SG NEG.IND.FUT do.PFV DEF Naanmin Kaa ı." Sore fv Lord 2sg God check.pfv NAFFR "They have written that: "you will not test the Lord your God" [Dagaare: Lobr] (80) $[\alpha:/1:]$ us-ne jawāb di-yā 3sg.nh-erg reply give-PFV ho?" $[\beta:/2:]$ ki "tum yahāN Kaise thahar sakte PROJ 2sg.nh here how stay MOD-HAB AUX.PRS 'He replied that: "how can you stay here?"" [Hindi] (81) $[\alpha:/1:]$ *El* vice presidente económico le respondió DEF.M.S vice president 3SG.DAT answer-PRS.3SG economic "las tarifas eléctricas han bajado $[\beta:/2:]$ que electric AUX.3PL go down.PTCP PROJ DEF.F.PL rates 17% en términos nominales desde 1999..." DEF.M.SG 17% in terms 1999 nominal.PL since 'The Vice-president for Economy replied that "electricity rates have gone down by 17% in nominal terms since 1999..." [Spanish] (82) [α/1:] *Obama daitooryo-wa kongetsu* hajime no ooshuu Obama president-TOP this month beginning-GEN European rekihoo de EU shunoo ni countries visit-LOC EU presidents-DAT << "Toruko o $\lceil \beta/2:1 \rceil$ ooshuu ni tsunagitomeru"yoo >> "Turkish-ACC European countries-DAT anchor" PROJ.R $[\alpha/1 \text{ cont'd:}]$ sokushi... encourage 'President Obama urged the EU leaders to "anchor Turkey to the European countries" during his European trip at the beginning of this month.'

(77) [\alpha:/1:] After the engine turned up at Three Bridges, a BR spokesman – skilled at

4.5. Projection and mood

All six languages can project all speech functions, although some speech functions are unlikely to be projected by mental processes, mostly when the projection is a quote. As we saw above, the capacity of mental processes to quote is more limited than that of verbal processes in all six languages. 5 Given that mental quotes are possible, theoretically one would expect examples of mentally quoted proposals (i.e. offers and commands) to be quite common. However, our discourse data shows evidence of mentally quoted propositions (i.e. statements and questions) only, as illustrated by (18) for English (Section 3), (65) for Arabic, (53) for Dagaree, (63) for Hindi and (64) for Spanish. While it is not as common as those of propositions, in Japanese, mentally quoted proposals are possible as in the following example (83).

```
(83)
        "Chotto matte" to
                               omotte iru
                                              uchi ni, ....
       "a little wait" PROJ
                               is thinking
                                              while LOC
       'While I was thinking "Wait a little"...'
```

[Japanese]

Turning now to reports, an interesting area of contrast is that of the Mood of reported questions. These retain the mood realization of actual questions in Dagaare (86) and Hindi (87) – something to be expected as projected clauses are always free clauses in these two languages— as well as in Spanish (88). In Japanese, while Mood structure of the reported questions is similar to that of the quoted questions, the grammatical markings of questions are different between quotes and reports: question particle ka as in (84) and ka doo ka "whether ... (or not)" as in (85), respectively. The general quotative particle toltte presents in the case of quoting however generally not in that of reporting.

```
(84)
       [1:] Kanja mo
             Patient also
                                                       ka">>
       [2:] << "sensei mo
                              shujutsu-shita no desu
                                                                                 itte ...
                                                                 [1 cont'd:]
                 "doctor
                                                        0"
                               operated
                                             NOM
                                                                 PROJ
                                                                                 say ...
             also
                               COP
       "Patient also said "Did you also have surgery?" ..."
```

[Japanese]

```
(85)
       [α:]
             Ten'in o mitsuketa uchira wa,
             shop assistant ACC found we TOP,
       [\beta:] << motto zaiko ga aru
                                        ka doo ka>>
                more stock NOM have Q:whether-or-not
       [\alpha cont'd:]
                    kiite mimashita.
                    ask-tried to-polite
       'We who found a shop assistant asked whether or not they have more stock.'
```

[Japanese]

Unlike those aforementioned languages, reported questions in English typically – though not always – have the mood of declaratives, i.e. Subject ^ Finite, as in (89).

Ù (86)[1:] sòwrì mὲ na 3SG ask, PFV 1sg.acc AFFR dầa. [2:] =έ nvínè cèrè nì go.IPFV =PROJ where 1s_G CAUS DEF beer. 'He asked that where am I sending the beer.'

[Dagaare: Lobr]

(87) [α:] bujurg mahilā ne puch-ā [β:] ki kaun ho?

old lady ERG ask-PFV PROJ who COP.PRS.2SG

'The old lady asked who (you) are (= who I was)?'

[Hindi]

(88)[Process:] fue $[\alpha:]$ El Γβ:1 cuándo fiscal le preguntó fiscal 3sg.dat ask-PST.3SG when be.pst.3sg DET.M.SG [Subject:] su Bengoechea siguiente contacto con with Bengoechea poss.3sg contact 'the fiscal asked him when his next contact with Bengoechea had been.'

[Spanish]

(89) [α:] Well he er he asked [β:] where [Subject:] I[Finite:]'d [Predicator:] been working

Unlike English, the order of Subject and Finite in Arabic remains unchanged. There is a range of options available to the speaker depending on whether the question is realized as polar (i.e. yes/no) or elemental (i.e. English *Wh*-) interrogative.

Polar interrogatives can be reported in three different ways: (i) Using *qa:la* ('he said') as an introductory verb, where the projection is typically paratactic and there are no grammatical shifts with respect to the direct question, not even in prosody (90); (ii) Using *sa?ala* + ?in ('he asked if'), where the projection is hypotactic and a few changes are made including deixis, tense and prosody (91); (iii) Using *sa?ala* or *qa:la* and retaining the Mood (but not the prosody: the tone falls at the end instead of rises) of a direct question, in which case the projection is paratactic (92).

Lastly, regarding elemental questions in Arabic, the projection is typically paratactic and also retains the original mood realization of reported questions (93).

(90) a. [1:] *qa:la*

say-3MSG:PFV

[2:/\alpha] ?a-xaraqtaha:

polar interro.particle-puncture-2MSG:PFV-her.OBJ.3FSG.ACC

[2:/β] lituGHriqa ?ahlaha:... to-2MsG:SBJV-drown people-MsG-her.Poss.3FsG.ACC

'(Moses) said: Hast thou made a hole therein to drown the folk thereof?'

b. [1:/α] *qa:la lahu Sa:Hibuhu* say-3MSG:PFV to-him companion-MSG-his.POSS.3MSG.NOM

[β] wa huwa yuHa:wiruhu and he 3MSG:IPFV-dialogue-him.OBJ.3MSG.NOM

[2:] ?a-kafarta billadhi:
polar-interrogative particle-disbelieve-2MSG:PFV with-who
xalaqaka min tura:bin...
create-3MSG:PFV-you.OBJ.3MSG.ACC from INDF-sand-MSG.GEN...

'His comrade, when he (thus) spake with him, exclaimed: Disbelievest thou in Him Who created thee of dust...?'

[Arabic]

(91) [α:] sa?alani: bilahjatin ask-3MSG:PFV-me.OBJ.1SG.GEN with-INDF-accent-FSG.GEN ba:risiyyatin INDF-parisian-FSG.GEN

[β:] ?in kuntu ?aHta:ju ?ila: tadhkaratin if be-1sg:PFV 1sg:IPFV-need to INDF-ticket-Fsg.gen 'He asked me with a parisian accent if I needed a ticket.'

[Arabic]

(92) a. [1:] fa-qa:lat

so-say-3fsg:pfv

[2:] hal ?adullukum
polar interro particle 1sG:IPFV-direct-you.OBJ.2MPL
Gala: ?ahli baytin
on INDF-parent-MSG.GEN INDF-house-MSG.GEN
[yakfulu:nahu lakum]
3MPL:IPFV-sponsor-him.OBJ.3MSG.NOM to-you-3MPL

'so she said: Shall I show you a household who will rear him for you...?'

b. [1:] sa?alani:

ask-3MSG:PFV-me-OBJ-1SG.GEN

[2:] hal ?anta mutazawwijun?
polar interrogative particle you.2MSG INDF-married-MSG.NOM?
'He asked me if I was married/ He asked me are you married?'

[Arabic]

(93) [1:] qa:la [2:] kam labithta...
say-3MSG:PFV how long stay-2MSG:PFV
'He said: How long hast thou tarried?'

[Arabic]

Another interesting area of contrast related in this occasion to the verbal mood, or equivalent, of reports is that of reported proposals. As we saw in Section 2 for commands (Example 12, renumbered here as 94), English typically chooses a full infinitive, although there are other options such as modulated finite clauses or clauses in the subjunctive, all these realizations reflecting the "irrealis or non-actualized" nature of projected proposals (cf. Halliday & Matthiessen 2014: 524–25). Example (95) illustrates a modulated realization of an offer in English.

- (94) $[\alpha:]$ I told them $[\beta:]$ to say we weren't interested
- (95) $[\alpha:]$ Mr Healey said $[\beta:]$ he would go round quoting that example to people

This irrealis nature can also be evident in the realization of reported proposals in Arabic, Dagaare and Spanish, but not in Hindi. Thus, commands in Arabic can be reported at a simple clause level as *a preposition* + *nominalized verb form* (96) or at a clause complex level by ?an + ?almuDHa:raG ?almanSu:b (the subjunctive in some Western descriptions of Arabic) (97).

(96) wa qad naha:hu
and OPERATOR forbid-3MSG:PFV-him-OBJ.3MSG.NOM
Gan ?alkadhibi...
from DEF-lying-MSG.GEN
'and he had ordered him not to lie.'
[Independent clause]

[Arabic]

(97) [α:] wa ?umirtu and order-1sg:pfv-pass

[β:] ?an ?aku:na mina ?almuslimi:na that 1SG:SBJV-be from DEF-muslim-MPL.ACC

'And I am commanded to be of those who surrender (unto Him)...'

[Arabic]

Example (98) below illustrates how the irrealis is expressed in Dagaare. Dagaare metaphorically employs relational clauses in projecting proposals. The verbs realizing the process in the projecting clause is normally one of two synonymous verbs, $s\varepsilon$ 'w ('become necessary', 'be appropriate') and $f\varepsilon$ 'r ('be necessary', 'be crucial'). Clauses in which they occur can only project imperative clauses. As (98) shows, these relational clauses have no participants. The Subject, which is always realized by the pronoun \dot{a} (third plural, non-human), is a dummy Subject and has no role in the transitivity structure of the clause. The function of the projecting clause as a whole is to modulate the proposal realized by the projected clause. It characterizes the projected clause as a necessity, a metaphorical strategy speakers use to distance themselves (and others) from the projected proposal. It should be noted that the clitic particle $=\varepsilon$ 'mark the clause it introduces as projected.

(98) [1:] \grave{A} $s\grave{\epsilon}w$ na 3PL.NHM be:necessary AFFR [2:] $=\acute{\epsilon}$ $b\acute{\epsilon}$ $y\acute{\epsilon}r\acute{\epsilon}$ $w\acute{o}n\acute{e}$

[2:] =\(\xi\) b\(\xi\) \(\y\xi\) fr\(\xi\) won\(\xi\) taar.

=PROJ 3PL speak.IPFV hear.IPFV each other 'this processory that they are agreeable with each other'.

'It is necessary that they are agreeable with each other.'

[Dagaare: Lobr]

Spanish, as in examples (99) and (100) below, expresses the irrealis by means of the subjunctive *dejáramos* ('leave-SBJV.1PL') in commands and the conditional *iria* ('go.AUX.COND.3SG') in offers. The latter may have an infinitival realization *acompañar* ('accompany-INF'), as in (93).

(99) [α:] Nos pidió 1PL.DAT ask-PST.3SG

[β:] que le dejáramos donde le
PROJ 3SG.DAT leave-SBJV.1PL where 3SG.DAT
habíamos cogido
AUX-PST.1PL pick up-PTCP

'he asked us to drop him where he had picked him up.'

[Spanish]

(100) [α :] Le dijo 3SG.DAT say.PST.3SG

[β:] que iría a visitarlo, a la

PROJ go.AUX.COND.3SG to visit-INF-3SG.ACC at DET.F.SG

La caída del Sol

[β:] DET.F.SG fall of-DET.M.SG sun

'He told him that he would go and visit him at sunset.'

[Spanish]

- (101) [α:] El Padre se ofreció
 DET.M.SG Father REFL.3SG offer-PST.3SG
 [β:] a acompañarlos ante las autoridades
 to accompany-INF-3PL.ACC before DET.F.PL authorities
 - 'the Father offered to accompany them before the authorities.'

[Spanish]

Hindi, as example (102) illustrates, the reporting of a proposal is very much like a quoted projection: the projected clause is in the form of a typical free finite clause, with the exception of the presence of the reporting binder ki (i.e. a projective particle). If this particle is removed and quotation marks are added, this will result in a projected quote. There is an alternative to it in which the projected proposal takes the form of a non-finite dependent clause, as in (103).

(102)kah-ā [a:] batā-ne par pote tell-INF grandson say-PFV LOC ABS ΓB:1 cārpāī bichā d-o. spread do-IMP PROJ cot 'On disclosing (who I was) (the old lady) asked his grandson to prepare the cot.'

[Hindi]

(103)pote bichā-ne batā-ne par cārpāī ko kah-ā. se spread-INF tell-INF LOC grandson ABS cot for sav-PFV 'On disclosing (who I was) (the old lady) asked his grandson to spread the mat'

Finally, Japanese is in some respect similar to Hindi in that reported proposals may behave like a free finite clause. As already pointed out in Section 4.4, while the predicator in the reported proposal is realized by an auxiliary *yoo* '(be sure to)' as in *yooisuru yoo* 'to prepare' in (41b) above, this reported proposal could also stand independently as a free clause expressing indirect commands.

5. Discussion and final conclusions

In the preceding sections, we have provided an introduction to the concept of projection as it is understood within the framework of systemic functional linguistics, followed by a comparative description of this phenomenon in English, Arabic, Dagaare, Hindi, Spanish and Japanese, thus covering a spectrum of genetically unrelated languages of the world.

As illustrated, logical projection is realized in all six languages by means of two distinct clauses, the projecting and the projected, with the possibility, in Arabic, of a realization which seems to be half way between experiential (as clause constituent) and logical (as projection beyond the clause simplex), i.e. with the projected clause being a "projected" circumstance of matter. In terms of how to signal the status of quoting and reporting, all six languages include in writing the possibility of using a colon (:) as well as quotation marks to distinguish what is quoted from the rest. In Arabic, a hyphen may be used to introduce a quote instead of enclosing it between quotation marks. Hindi adds a comma between the quoting clause and the quote. Reporting, in turn, is indicated by the presence of a projection marker, obligatory in

Table 1. Realization of projection and projection markers.

	English	Arabic	Dagaare	Hindi	Spanish	Japanese
(a) Realization of logical projection	Two distinct clauses	Two distinct clauses Sometimes simple clause with "projected" circumstance of matter	Two distinct clauses	Two distinct clauses	Two distinct clauses	Two distinct clauses
(b) Punctuation: in quotes	Often ":" and quotes in written mode	Often ":" and quotes in written mode. Sometimes quotes are hyphenated instead of being enclosed in quotation marks.	Often ":" and quotes in written mode	Often ":" and quotes in written mode; quoting and quoted clauses separated by comma	Often ":" and quotes in written mode	Often ":" and quotes in written mode
(c) Report markers	that (optional) with statements	?anna, ?inna, ?in or ?an,	$k\varepsilon$ also possible with quotes	ki, optional with statements; possible with questions	que, obligatory with statements; possible with questions	toltte, generally obligatory both in reports and quotes;

Table 2. The realization of quoting and reporting.

	English	Arabic	Dagaare	Hindi	Spanish	Japanese
(a) Quoting vs. reporting	Clearly distinct	Generally clearly distinct, except ?inna + accusative	Generally clearly distinct, but see Table 1c	Generally clearly distinct, but see Table 5	Clearly distinct	Generally clearly distinct except for projected statements
(b) Clause ordering: quoting	[1:quoting]→ [2:quoted] [1:quoted]→ [2:quoting]	Usually [1:quoting]→ [2:quoted] Also possible: [1:quoted]→ [2:quoting]	[1:quoting]→ [2:quoted]	Usually [1:quoting]→ [2:quoted] Also possible: [1:quoted]→ [2:quoting]	[1:quoting]→ [2:quoted] [1:quoted]→ [2:quoting]	Usually [1:quoting]→ [2:quoted] but [2:quoted] may be enclosed in [1: quoting], thus: ([1: quoting → <2:quoted>→ [1:quoting_cont'd]) Also possible: [1:quoted]→ [2:quoting]
(c) Clause ordering: reporting	[α:]→[β:]				Rare [β:]→[α:]	$[\alpha:] \rightarrow [\beta:] \rightarrow [\alpha_cont'd:];$

Table 3. Verbal vs. mental projection.

	English	Arabic	Dagaare	Hindi	Spanish	Japanese
(a) Verbal process and mode of projection	Quoting and reporting					
(b) Mental process and projection type	Typically	reportin	g, but quo	ting pos	sible	

some languages, optional in others, Arabic being an exception in having a wide range of possible markers as well as in the grammatical constraints imposed by them. Table 1 summarizes these points.

Concerning the realization of quoting and reporting, all six languages generally make clear distinction. There are also some language-specific characteristics: in Arabic, ?inna + accusative may construe a quote or a report and reports may be realized paratactically and get to keep their original tense and deixis; in Dagaare, reports are free clauses; in Hindi, reports, albeit dependent, may keep the original tense and deixis (cf. (a) in Table 2 + (b) in Table 4), and in Japanese, reports may alternatively be realized by evidentials and though dependent like in Hindi also retain their original tense and deixis.

In terms of the relative ordering of the projecting and the projected clauses, a higher flexibility in quoting than in reporting was identified. As summarized in Table 2, the ordering of $[\alpha:] \rightarrow [\beta:]$ is a constant pattern in reports across all but except Japanese, while quotes show more variations, Dagaare being the only language with a fixed realizational pattern here. Notice also that in Table 2, we cannot resort only to the convention $[1:] \rightarrow [2:]$ to explain the relative ordering of clauses in quoting because in paratactically related clauses the initiating clause is always [1:] and the continuing is [2:], regardless of the relative ordering of the quoting and the quoted clauses. Thus, we have specified whether [1:] and [2:] represent the quoting or the quoted clauses.

Our description of the differences between verbal and mental projection has shown that while reports are pervasive among both verbal and mental processes, quotes occur more commonly in verbal than in mental processes. Table 3 illustrates this point.

The relationship between the projecting and the projected clauses in terms of taxis is another area that was studied. While in all six languages, quotes are free-standing clauses paratactically related to the quoting clause, reports are more varied. There is a cline between quotes and reports, extending from English and Spanish at one end, where the report is a dependent clause hypotactically related to the reporting clause, to Arabic, where the report is also a dependent clause but may be paratactically related to the main clause, to Hindi and Japanese, where the report is still a hypotactically related dependent clause, to Dagaare at the other end, where reports are free-standing clauses, paratactically related to the quoting clause. All of this is summarized in Table 4, which also shows that free indirect speech is possible in all six languages.

The last issue discussed was the projection of different speech functions. As with other issues, points of convergence and divergence have been identified. All six

Table 4. Projection and taxis.

	English	Arabic	Dagaare	Hindi	Spanish	Japanese
(a) Relation between quoting clause and quote		Paratactic quote: free clause				
(b) Relation between reporting clause and report	hypotactic; report: dependent clause	typically hypotactic but potential to report paratactically; report: dependent clause	paratactic; report: free clause	hypotactic; report: dependent clause (but no change in tense or deixis)	hypotactic; report: dependent clause	hypotactic; report: dependent clause (but no change in tense or deixis)
(c) Free indirect speech	possible					

Table 5. Projection and speech functions.

	English	Arabic	Dagaare	Hindi	Spanish	Japanese
(a) Mental quoting & speech functions	typically propositions; proposals rare					
(b) Mood in reported questions	Mood as in statements (Subject^Finite)	Mood as in direct questions				+ka doo ka 'whether (or not)'
(c) Mood in reported proposals	commands: typically full infinitive; sometimes modulated offers: modulated	preposition + nominalized verb form or ?an + ? almuDHa:raG ?almanSu:b (subjunctive)	As a direct proposal	Typically as a direct proposal (with <i>ki</i>); sometimes a non-finite dependent clause	commands: subjunctive offers: conditional	+ auxiliary yoo '(be sure to)'

languages are similar in that they can project all speech functions and that quoted proposals are rare in the environment of mental process projection. Conversely, the main point of contrast has been identified in the nature of the Mood (i.e. Subject and Finite) of reported questions and proposals, in terms of the order of those two constituents in the languages that express Mood structurally (e.g. English, Spanish, Arabic), and time and deixis, in questions, and the way in which the concept of "irrealis" is realized in offers and commands (i.e. proposals). As shown in Table 5, this is the point of most varied contrast among the six languages, as each one of them chooses a different kind of realization.

Our comparative description of six genetically unrelated languages and their contrasting summaries have shown that the distinction between quoting and reporting is a valid cross-linguistic parameter that helps define their nature, generally and specifically when it is calibrated with other relevant parameters, or projection systems such as mode of projection and speech function.

In fact, the inclusion of all aspects of quoting and reporting of speech and thought under the unifying category of projection has been decisively important because projection was then defined as a clause complex relation realized by two component parts: the projecting and the projected, against which the nature of quoting and reporting has been investigated cross-linguistically. This methodological framework of projection that we have demonstrated herein should therefore serve as a guide to the study of projection in other languages of the world.

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Notes

- 1. The symbols [α] and [β] indicate hypotactic relationship between two clauses, where [α] indicates the main (or primary) clause and [β] indicates the dependent (or secondary) clause. On the other hand, the numbers [1], [2], [3], etc. indicate clauses that are paractactically related, where each number indicates the corresponding order of the clause in the clause-complex.
- Although we include punctuation in our discussion, this is not a major concern here. The issue of punctuation deserves a paper of its own, where it should be compared to equivalent resources in oral speech.
- 3. Similar phenomena may be found in other languages. See, for instance, de Vries (1995) about Wambon (a Papuan language).
- 4. The dependency in Hindi (and in most Indo-Aryan languages) is structural at clause rank, while the realization of tense is a morphological phenomenon that is part of the agreement paradigm, as in Bajjika (Kashyap 2012, Kashyap & Yap 2017), and that has little to do with dependency: (see Kashyap & Prakasam (in preparation) for details).
- 5. The realization of mood varies across the six languages discussed in the present study. English realizes mood by variation in the order of clause elements, i.e. Subject and Finite (Halliday & Matthiessen, 2014: Ch. 4); Arabic (Bardi 2008) realizes mood by inflectional verbal morphology and mood particles; Japanese (Teruya 2004, 2007) realizes mood by the combination of verbal morphology and clause final particles; Dagaare realizes mood

by the placement of mood particles in the verbal group and clause final position (Mwinlaaru 2017: Ch. 4); Hindi realizes mood by intonation and Spanish by a combination of verbal morphology and intonation (Lavid et al. 2010, Ch. 4; Quiroz 2013: Ch. 3) – see also Teruya et al. (2007), Mwinlaaru et al. (2018).

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