4 - Universal Quantification in Non-European Languages
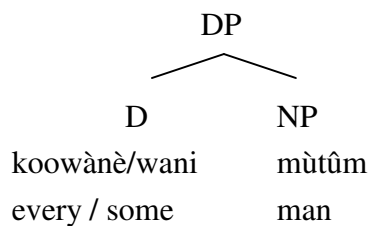
1.   Hausa: *duk(à)* vs. koo-wh expressions (ZIM 2008)

(1)   distributive koo-wh expressions:

koowànè / koowàcè / koowàɗânnè   'each, every (m./f./pl.)'   = $\forall$

i. koowànè ɗaalìbii   'every student'

ii. koowàcè mootàa   'every car'

iii.koowàɗânne irìn kaayaa   'all kinds of clothes'

(2)   DP

                   D   NP
koowànè/wani   mùtûm
every / some   man

1.1   Morpho-Syntactic Differences

i.   *koo*+wh must precede the NP, *duk(à)* can occur before or after the head NP (3a-c).

ii.   Unlike *koo*+wh expressions, *duk(à)* shows no agreement with the head noun

(3)   a. *duk* faasinjoojî-*n*   vs.   faasinjoojî-*n*   *dukà*   [Newman 2000: 388]
         all passengers-DEF   passengers-DEF   all
         'all the passengers'

      b. *duk(à)* Hàusàwaa   vs.   Hàusàawaa   *dukà*
         all   Hausa people   Hausa people all
         'all Hausa people'

      c. *duk*   àbinci   vs.   àbinci   *dukà*
         all   food   food   all
         'all the food'

→   *duk(à)* is a modifying element, rather than a functional head in D.

iii.   unlike *koo*+wh, *duk(à)* cannot combine with singular NPs:

(4)   * naa   ga   duk *ɗàalìbii*   (OK with *ɗàalìbai* 'students')
          1sg.PERF   see   all   student
          Intended: 'I saw all the students'

iv.   *duk(à)* can occur with definite expressions (3ab), *koo*+wh expressions only with indefinite NPs.

→   *duk(à)* functions as a modifying phrase (= English *all*, Brisson 1998, 2003) and typically operates on definite DPs.

1.2   duk(à) 'all' vs. koo+wh 'every, any': Semantic differences

i.   Collective vs. distributive readings.

→   *koo+wh* expressions do not allow for collective construals (Jaggar 2001):

(4)   a.   * *koo-wànè ɗàalìbii* yáa   tàaru   à   gàba-n   makar̃antaa.
               DISJ-which student 3sg.PERF   gather   at front-LINK   school
               *'Each student gathered in front of the school.'

       b.   * *koo-wànè   soojà*   yáa   keewàye   gàrii.
              DISJ-which soldier 3sg.PERF surround   town
              *'Each soldier surrounded the city.'

→   d*ukà*-NPs can freely co-occur with collective predicates:

(5)   a.   *duk ɗàalìbâ-n*   sun   tàaru   à   gàba-n   makar̃antaa
             all   students-DEF 3pl.PERF   gather   at front-LINK   school
             'All the students gathered in front of the school.'
       b.   *duk soojoojî-n*   sun   keewàye   gàrii
             all   soldiers-DEF 3pl.PERF surround   town
             'All the soldiers surrounded the city.'

→   parallel to the distinction between distributive *each/every* and collective *all* in English
      (Vendler 1967, Gil 1995) and in Northern Sotho and Swahili (Zerbian & Krifka 2008).

BUT: *koo+wh* expressions can serve as antecedents for collective reciprocal predicates !!!

(6)   ***koowaa NP∅*** yaa   san   juunaa   nân.
       ∀   ∅   3SG.M know each.other here
       'Everyone knows each other here.'

ii.   *Behaviour under negation* (Jaggar 2001:377)

→   VP-NEG >> *koo+wh*: negative existential interpretation *no, noone, nothing ...*

(7)   **bà-**n   ga   *koo-waa*   **ba**
       NEG-1sg.SUBJ see DISJ-wh   NEG
       'I didn't see anyone.' ⇔ 'I saw no-one'   NOT: 'I did not see everyone.'

→   NEG >> *duk(à)*: negative universal interpretation *not all*.

(8)   a.   bà-n   kar̃àntà duk   lìttàttàafâ-n ba   [Jaggar 2001: 377]
             NEG-1sg   read   all   books-DEF NEG
             'I didn't read all the books.'

       b.   bàa   duk   bàaƙii   su-kà   zoo ba
             NEG all   guests 3pl-PERF.REL come NEG
             'Not all the guests have come.'

1.3   Binding differences

→   Grammatically singular distributive *koo*+wh expressions can only bind singular
      pronouns, cf. (9a),

→   plural *duka*-DPs must be anaphorically picked up by plural pronouns, cf. (9b):

(9)   a.   *koo-wànè*ᵢ   mùtûm   yaa   sayař dà   *gida-n-sà*ᵢ   /   * gida-n-*sù*ᵢ
          DISJ-which man   3sg.PERF sell   house-LINK-3sg   house-LINK-3pl
          'Everyᵢ man sold hisᵢ house.'

      b.   *duk   mutàanê-n*ᵢ   sun   sayař dà   * gida-n-*sà*ᵢ   /   *gida-n-sù*ᵢ
          all   men-DEF   3pl.PERF sell   house-LINK-3sg   house-LINK-3pl
          'All the menᵢ sold theirᵢ houses.'

1.4   Conclusion

Same as many other languages (including English and German), Hausa has two adnominal expressions with universal quantifying force, namely *koo*+wh ('every') expressions and *dukà* ('all')-expressions, which differ in syntactic distribution and semantic interpretation.

Q: How come?

2.   Additional Data:

2.1   Cuzco Quechua (Faller & Hastings 2008)

→   all universal quantifiers except *sapanka* can receive a collective interpretation:

(10)   a.   llapan/tukuy/lliw   runa   hu˜nu-na-ku-rqa-nku.
          every/all   person   meet-pa-refl-pst-3ku
          'All people gathered.'

      b.   Sapanka   runa   hu˜nu-na-ku-rqa-nku
          each   person   meet-pa-refl-pst-3pl
          (i)   # 'Every person gathered.'
          (ii)   'All families gathered (that is, each family had their own gathering).'

→   only *llapa, tukuy* and *lliw* but not *sapanka* can convey the meaning that a single object is affected in its totality (= *all* vs. *each*)

(11)   a.   llapan/lliw/tukuy sunqu-y-wan   b. #sapanka   sunquy-wan
          every/all   heart-1-com   each   heart-1-com
          'with all my heart'   'with each of my hearts'

→   only *llapa, tukuy* and *lliw* can combine with mass nouns and then specify the totality of the quantity (= *all, duk(à)*); when *sapanka* modifies a mass noun, it necessarily quantifies over units or kinds (= *each, koo+wh*)

(12)   a.   llapan/tukuy/lliw   unu   b. sapanka unu
          every/all   water   each   water
          'all (the) water'   'each bottle/kind of water'

2.2   Bantu (Northern Sotho, Swahili; Zerbian & Krifka 2008)

→   The Swahili quantifiers *kila* and *–ote* differ in terms of inherent distributivity (apart form other syntactic and morpho-syntactic differences):

(13) a. wa-toto   **w-ote**   wa-na-cheza pamoja   (= *all*)
       cl2-child   PPX2-all   sc2-pres-play together
       'All children are playing together.'

    b. ***Kila**   m-toto   a-na-cheza   pamoja   (= *every/ each*)
       each   cl1-child   sc1-pres-play together
       * 'Every child is playing together.'

2.3   Basque (Etxebarria 2008)

→   Basque has three expressions translated as *all* (*guzti, den, oro*), and one translated as *each* (*bakoitz*)

•   similarities:

→   universal expressions (except for *oro*) require the presence of a definite determiner on Q (not on the nominal complement, cf. Matthewson 2001): domain restriction on Q

→   unlike weak modifying quantifiers, universally quantifying expressions must occur in postnominal position, same as determiners: [[NP] Q]

•   differences:

→   *bakoitz* 'each' cannot occur with plural determiners

(14) a. *Ikasle bakoitz-**ek**   goxoki bat   jan   zuten.
       student each-D.pl.erg candy   one-abs eat   aux.pl

    b. Ume guzti-**ak**   goiz iritisi   ziren
       child all-D.pl.abs   early arrive   aux.pl

→   *bakoitz* 'each' must get a distributive interpretation

(15) a. ikasle   guzti-ek/ den-ek   abestibat   abestu zuten   (= *all*)
       student all-D.**pl**.erg/all-D.**pl**.erg song one-abs sing   aux.pl
       'All/ all of the students sang a song (together).'

    → distributive: OK, collective: OK

    b. ikasle   bakoitz-ak   abestibat   abestu zuten   (= *each/every*)
       student each-D.**sg**-erg   song one-abs sing   aux.pl
       'Each student sang a song (*together).'

    → distributive: OK, *collective

3.   Hebrew: Another Pattern

(16) a. ***kol iš***   saħav   šaloš mizvadot / *hitʔasef   ʕim šaħar *kol*+NP$_{SG}$
       ∀   man:**SG**   carry-PST three suitcase-PL REFL-gather-PST with dawn
       'Each man carried three suitcases /   *gathered at dawn.'

    b. ***kol ha-ʔanašim*** saħvu   šaloš mizvadot   / hitʔasfu   ʕim šaħar *kol*+DP$_{PL}$
       ∀   **DEF**-man:**PL** carry-PST three suitcase-PL   REFL-gather-PST with dawn
       'All the men carried three suitcases (each/ together) / gathered at dawn.'