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Extraction limited to pivot

Normal top-down ("outside-in") licensing:
($\uparrow$ TOPIC|FOCUS) = ($\uparrow$ … PIV)

(1)   <u>Tagalog</u> (Austronesian>Malayo-Polynesian>Western; the Philippines)
    a.   Matalino   ang   lalaki- ng   bumasa   ng   diyaryo.
        intelligent NOM man- LNK PERF.AGT.read ACC newspaper
        'The man who read a newspaper is intelligent.'
    b.   Interesante   ang   diyaryo-   ng   binasa   ng   lalaki.
        interesting NOM newspaper- LNK PERF.DO.read ERG man
        'The newspaper that the man read is interesting.'
    c.   *Interesante ang   diyaryo-   ng   bumasa   ang   lalaki.
        interesting NOM newspaper- LNK PERF.AGT.read NOM man
        'The newspaper that the man read is interesting.'
    d.   *Matalino ang   lalaki- ng   binasa   ang   diyaryo.
        intelligent NOM man- LNK PERF.DO.read NOM newspaper
        'The man who read a newspaper is intelligent.'

(2)   <u>West Greenlandic Inuit</u> (Eskimo-Aleut>Eskimo; Greenland)
    a.   nanuq   [Piita- p   tuqu- ta-   a]
        polar.bear Peter- ERG kill- TR.PART- 3SG
        'a polar bear that Peter killed'
    b.   miiraq [kamat- tu-   q]
        child   angry- REL.INTR- SG
        'the child who is angry'
    c.   *angut [aallaat   tigu- sima- sa-   a]
        man   gun.ABS take- PRF- REL.TR- 3SG
        'the man who took the gun'

(3)   <u>Mam</u> (Mayan; Guatemala and México)
    a.   Alkyee x-   hi   b'eet?
        who   RECENT- 3plABS walk
        'Who walked?'
    b.   Alkyee- qa x-   hi   tzaj t-   tzyu- 7n   Cheep?
        who-   PL RECENT- 3pABS DIR 3sERG- grab- DIRS José
        'Who did José grab?'
    c.   *Alkyee saj   t-   tzyu 7n   kab' xiinaq?
        who   RECENT.3sABS.DIR 3sERG- grab- DIRS two man
        'Who grabbed the men?'
    d.   Alkyee saj   tzyuu- n   ky- e   kab' xiinaq?
        who   RECENT.3sABS.DIR grab- APASS 3PL- OBL two man
        'Who grabbed the men?'

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(4)   <u>Chukchi</u> (Chukotko-Kamchatkan; Chukchi Penninsula, ne Siberia, Russia)
      a.   E-   tipʔeyŋe- kə-   lʔ-   in   ŋewəčqet   ragtə-   gʔə.
               NEG- sing-   NEG- PART- ABS.SG woman.ABS.SG go.home- 3SG
               'The woman who was not singing went home.'
      b.   Igər a-   yoʔ- kə-   lʔ-   etə enm- etə mən- əlqən- mək.
               now NEG- reach- NEG- PART- to hill- to 1PL- go-   1PL
               'Now let us go to the hill which (someone) didn't reach.'
      c.   En-   agtat- kə- lʔ-   a   qaa-   k   ʔaaček- a
               APASS- chase- NEG- PART- ERG reindeer- LOC youth- ERG
               winret- ərkən- inet   ŋewəčqet- ti.
               help-   PRES- 3sERG.3pABS woman- ABS.PL
               'The youth who does not chase the reindeer is helping the women.'

Other ways to license *wh*-constructions

•   Bottom-up ("inside-out") licenses extraction of non-PIVs
      $(\uparrow \text{GF}) = ((\dots \uparrow) \text{ TOPIC|FOCUS})$

•   Pivots with a local discourse function can be assigned in situ

A language with no top-down ("outside-in") licensing
<u>Imbabura Quechua</u> (Quechuan; Imbabura, Ecuador)

(5)   a.   Juan wagra- ta   randi- shka-   ta   ya-   ni.
               Juan cow-   ACC buy-   NMNL- ACC think- 1
               'I think Juan bought a cow.'

      b.   *Extraction of embedded PIV is * because of lack of licensing*
               *Pi- taj ya-   ngui wagra- ta   randi- shka-   ta   ?
               who- Q think- 2   cow-   ACC buy-   NMNL- ACC
               'Who do you think bought a cow?'

      c.   *... but extraction of non-PIV is* ✓
               Ima- ta-   taj ya-   ngui Juan randi- shka-   ta   ?
               what- ACC- Q think- 2   Juan buy- NMNL- ACC
               'What do you think Juan bought?'

      d.   *Local discourse function for PIV is allowed*
               Pi- taj kan- paj   mama- man ali   wagra- ta   kara- rka ?
               who- Q you- POSS mother- to   good cow-   ACC give- PST.3
               'Who gave your mother a good cow?'

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The "That-Trace" Filter

(6)   a.   I think Gabi hugged Pnina.
      b.   I think that Gabi hugged Pnina.

(7)   a.   Who do you think Gabi hugged ___?
      b.   Who do you think that Gabi hugged ___?

(8)   a.   Who do you think ____ hugged Pnina?
      b.   *Who do you think that ___ hugged Pnina?

Functionalist observation: finite subordinate clauses are only loosely connected to the higher clause.

Grammaticalization of this:
      "finite subordinate clause": marked by the complementizer *that*
      connection with higher clauses: property of PIV

∴*that* is marked with a lexical constraint that its PIV must be an element of its own clause, not an element of a higher clause. This lexical constraint results in the *that*-trace effect.

In Hebrew, the effect shows up with the complementizer *im* 'if, whether', but not with *še* 'that'.

(9)   a.   Mi   ata   xošev   še   ___   xibek   et   Pnina ?
             who you   think   that   hugged ACC   Pnina
             'Who do you think hugged Pnina?'

      b.   *Mi   šaalta   im   ___   xibek   et   Pnina   ?
             who you.asked if   hugged ACC   Pnina
             Who did you ask if hugged Pnina?

Since this is grammaticalization, each language chooses whether and how to grammaticalize.