

# Parallel Chains at PF: Insights from Krachi Predicate Fronting with Verb Doubling\*

Jason Kandybowicz  
The Graduate Center, City University of New York  
[jkandybowicz@gc.cuny.edu](mailto:jkandybowicz@gc.cuny.edu)

## 1. INTRODUCTION

Many languages allow predicate fronting. In some of those languages, there is more than one way to front the predicate – either a verb or a verb phrase moves to the left periphery and an additional copy of the verb is realized lower in the clause.

- (1) a. Spanish (Vicente 2005)  
[**Comprar**], Juan ha **comprado** un libro (aunque luego no lo ha leído).  
buy.INF Juan has buy.PRF a book but later not CL has read.PRF  
'As for buying, Juan has bought a book (although he didn't read it later).'
- b. [**Comprar un libro**], Juan lo ha **comprado**.  
buy.INF a book Juan CL has buy.PRF  
'As for buying a book, Juan has bought it.'
- c. Hebrew (Landau 2006)  
[**Liknot**], hi **kanta** et ha-praxim.  
buy.INF she buy.PST ACC the-flower.PL  
'As for buying, she bought the flowers.'
- d. [**Liknot et ha-praxim**], hi **kanta**.  
buy.INF ACC the-flower.PL she buy.PST  
'As for buying the flowers, she bought.'
- e. Yiddish (Cable 2004)  
[**Essen**] **est** Maks fish.  
eat.INF eat.PRES Max fish  
'As for eating, Max eats fish.'
- f. [**Essen fish**] **est** Maks.  
eat.INF fish eat.PRES Max  
'As for eating fish, Max eats them.'

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\* The data presented in this talk come exclusively from fieldwork and are presented in the official Krachi orthography developed by the Ghana Institute for Linguistics, Literacy & Bible Translation (Dundaa 2007). Because the orthography does not mark tone, tone marking has been omitted from the examples. I extend sincere thanks to my native speaker consultants Mark Nsekou Denteh, Matthew Donkor, and Joseph Agyei Korboe, as well as to Mark Dundaa and the Ghana Institute for Linguistics, Literacy & Bible Translation for logistical, material and scholarly support.

Krachi, an endangered language of eastern Ghana, is one such language.

- (2) a.  $\text{ɔkyɪ wʊ ɛ-dʊkɛ i-gyo.}$   
woman the PST-cook PL-yam  
'The woman cooked yams.'
- b.  $\text{Kɛ- [dʊkɛ] yɪ ɔkyɪ wʊ ɛ-dʊkɛ i-gyo.}$   
NOM cook FOC woman the PST-cook PL-yam  
'It was COOKING that the woman did to yams (not, say, eating).'  
'It was only cooking that the woman did to yams (i.e. she did not buy/sell/eat them).'
- c.  $\text{Kɛ- [dʊkɛ i-gyo] yɪ ɔkyɪ wʊ ɛ-dʊkɛ.}$   
NOM cook PL-yam FOC woman the PST-cook  
'It was COOKING YAMS that the woman did (not, say, eating rice).'  
'It was only cooking yams that the woman did (i.e. she did nothing else).'

However unlike many of these languages, there is a third way to front the predicate in Krachi. This third fronting strategy involves object-verb inversion.

- (3)  $\text{Kɛ- [i-gyo dʊkɛ] yɪ ɔkyɪ wʊ ɛ-dʊkɛ.}$   
NOM PL-yam cook FOC woman the PST-cook  
'It was COOKING YAMS that the woman did (not, say, eating rice).'  
'It was only cooking yams that the woman did (i.e. she did nothing else).'

In this talk, I propose that:

- All instances of predicate focus with verb doubling in Krachi involve the formation of identical PARALLEL CHAINS (Chomsky 2008).
- Differences in the PF interpretation of the chains account for the surface differences between the predicate focus constructions in the language.
- Krachi predicate focus provides additional support for PF scattered deletion (Wilder 1995, Ćavar & Fanselow 1997, Bošković 2001).
- Krachi predicate focus provides additional support for analyses like Kandybowicz 2008 and Aboh & Dyakonova 2009 that attempt to derive verb doubling from narrow syntactic mechanisms like parallel chain formation rather than multiple copy spell-out at PF.

## 2. LANGUAGE BACKGROUND

Krachi is an endangered North Guang language of the Tano phylum of Kwa languages.

The language is spoken by approximately 25,000-50,000 speakers in the region surrounding the town of Kete-Krachi.

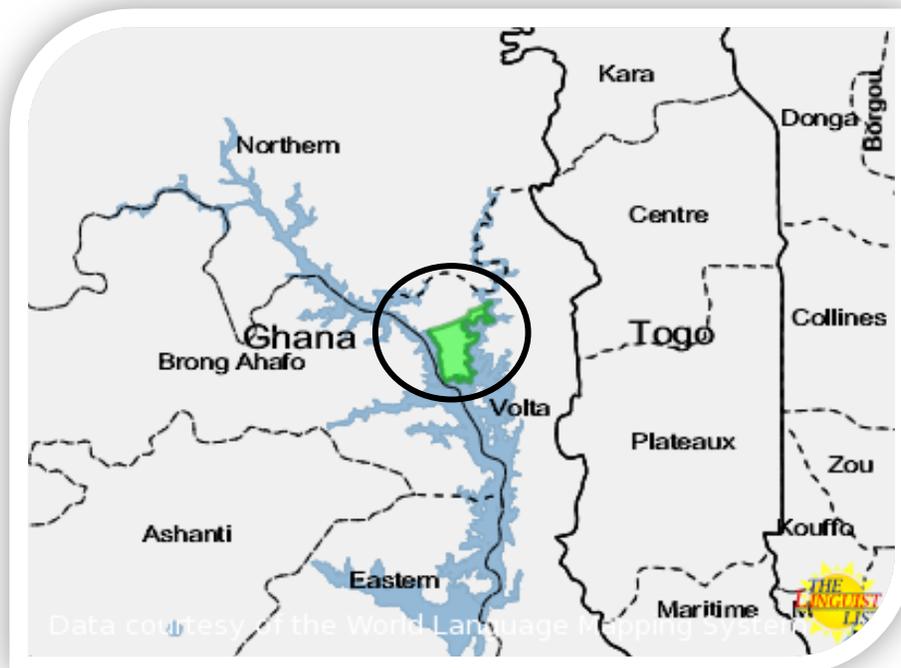


Figure 1 – The Krachi-speaking region of Ghana

## 3. ASSUMPTIONS ABOUT KRACHI CLAUSE STRUCTURE

- Krachi is a  $V^0$ -to- $T^0$  language.

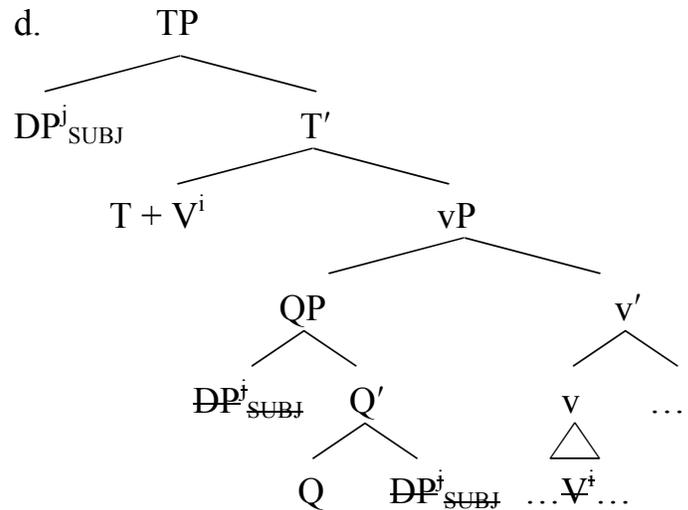
Evidence:  $V^0$  and  $T^0$  form a prosodic word in the language. In Krachi, the prosodic word is the domain for vowel harmony and with very few exceptions, all word-internal vowels share the same ATR specification (Adonae 2005; Dundaa 2007).

- (4) a.  $\text{ɔkyɪ wu ke-duke kugyo wu yɪ Kofi ke-gyi brɔdɪɛ}$   
woman the FUT-cook yam the and Kofi FUT-eat plantain  
'The woman will cook the yam and Kofi will eat a plantain.'
- b.  $\text{ɔkyɪ wu ɛ-duke kugyo wu yɪ Kofi ɛ-gyi brɔdɪɛ}$   
woman the PST-cook yam the and Kofi PST-eat plantain  
'The woman cooked the yam and Kofi ate a plantain.'

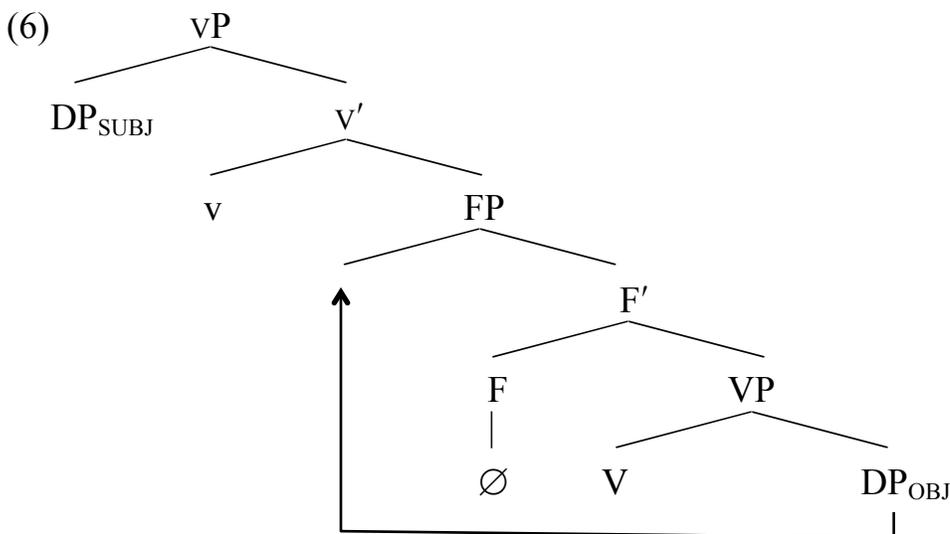
Better evidence: Subject-oriented floating quantifiers follow the tense-marked verb.

- (5) a. A-kyt      **kpatii**    kε-dkε    i-gyo.  
 PL-women few    FUT-cook PL-yam  
 ‘Few women will cook yams.’
- b. A-kyt      kε-dkε    **kpatii** i-gyo.  
 PL-women FUT-cook few    PL-yam  
 ‘Few women will cook yams.’  
 Not: ‘Women will cook few yams.’

- c. \* A-kyt      kε    **kpatii**    dkε    i-gyo.  
 PL-women FUT few    cook PL-yam

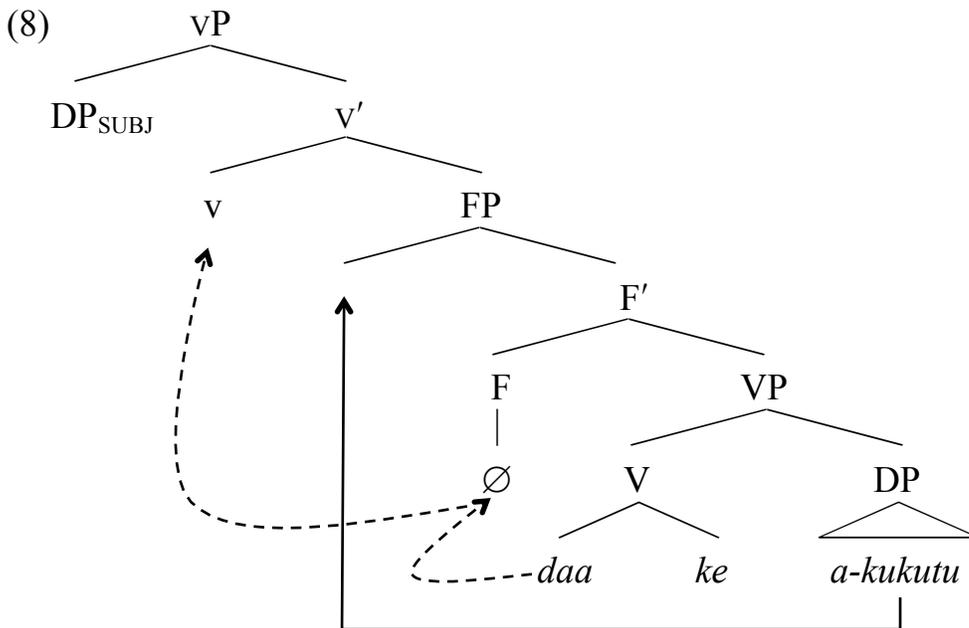


- vP contains an intermediate case-licensing projection hosting the object (Travis 1991, 2010; Koizumi 1995; Kandybowicz & Baker 2003, etc.).



Evidence: Word order in split V constructions

- (7) a. Ama  $\epsilon$ -**daa** a-kukutu **ke**.  
 Ama PST-taste PL-orange *ke*  
 ‘Ama tasted oranges.’
- b. \*Ama  $\epsilon$ -**daa** **ke** a-kukutu.  
 Ama PST-taste *ke* PL-orange



The pieces of a split V do not separate when they take non case-bearing complements.

- (9) a. Kofi  $\epsilon$ -**tuŋ** **sɔ** [<sub>CP</sub> fεε Ama  $\epsilon$ -dɪkε kugyo wu].  
 Kofi PST-cut *sɔ* COMP Ama PST-cook yam the  
 ‘Kofi forgot that Ama cooked the yam.’
- b. \*Kofi  $\epsilon$ -**tuŋ** [<sub>CP</sub> fεε Ama  $\epsilon$ -dɪkε kugyo wu] **sɔ**.  
 Kofi PST-cut COMP Ama PST-cook yam the *sɔ*
- c. Kofi  $\epsilon$ -**kware** **ɔ-gyɪ** [<sub>CP</sub> fεε Ama  $\epsilon$ -dɪkε kugyo wu].  
 Kofi PRS-collect 3<sup>RD</sup>.SG-eat COMP Ama PST-cook yam the  
 ‘Kofi believes that Ama cooked the yam.’
- d. \*Kofi  $\epsilon$ -**kware** [<sub>CP</sub> fεε Ama  $\epsilon$ -dɪkε kugyo wu] **ɔ-gyɪ**.  
 Kofi PRS-collect COMP Ama PST-cook yam the 3<sup>RD</sup>.SG-eat

Q-float facts show that objects originate lower than the second particle in the split V construction.

- (10) a. Ama ε-daa [QP a-kukutu **kpatii**] ke.  
Ama PST-taste PL-orange few ke  
'Ama tasted few oranges.'
- b. Ama ε-daa a-kukutu ke [QP \_\_\_\_ **kpatii**].  
Ama PST-taste PL-orange ke few  
'Ama tasted few oranges.'

#### 4. SIMPLE PREDICATE FOCUS

##### 4.1. Core Properties of Krachi Predicate Focus, as Illustrated by Simple V Focus

- V has a bi-locational distribution.

- (11) a. Kε-duke yɪ ɔkyɪ wu ε-\*(duke) i-gyo (**\*duke**).  
NOM-cook FOC woman the PST-cook PL-yam cook  
'It was COOKING that the woman did to yams.'
- b. \*Kε-duke yɪ ɔkyɪ wu ε-wa.  
NOM-cook FOC woman the PST-do  
Intended: 'It was COOKING that the woman did.'

- The peripheral predicate is nominalized.

- (12) a. \*Duke yɪ ɔkyɪ wu ε-duke i-gyo.  
cook FOC woman the PST-cook PL-yam
- b. Kε- [watu **tuma**] yɪ ɔkyɪ wu ε-watu i-gyo.  
NOM pound good FOC woman the PST-pound PL-yam  
'It was a GOOD POUNDING that the woman did to yams.'

- (13) a. Mɪ ε-kɪɪ kε-duke.  
1<sup>ST</sup>.SG PRS-like NOM-cook  
'I like cooking.'

b.  $K\epsilon$ - $du\epsilon$   $\epsilon$ - $bwa\epsilon$ .  
 NOM-cook PRS-be good  
 ‘Cooking is good.’

- The dependency between V occurrences is A-bar-like with respect to unboundedness (14a) & island-sensitivity (14b-d).

(14) a.  $K\epsilon$ - $watu$   $y\iota$  Gifty  $\epsilon$ - $gy\epsilon\iota$  [ $f\epsilon\epsilon$  Kofi  $\epsilon$ - $nu$  [ $f\epsilon\epsilon$  Ama  $\epsilon$ - $watu$   $i$ - $gyo$ ]].  
 NOM-pound FOC Gifty PST-think COMP Kofi PST-hear COMP Ama PST-pound PL-yam  
 ‘It was POUNDING that Gifty thought that Kofi heard that Ama did to yams.’

b. \* $K\epsilon$ - $du\epsilon$   $y\iota$  Kofi  $\epsilon$ - $du$  [ $ans\alpha\eta$  Ama  $\epsilon$ - $du\epsilon$   $mwe$ ]. (Adjunct Island)  
 NOM-cook FOC Kofi PST-sleep before Ama PST-cook rice  
 Intended: ‘Kofi slept before Ama COOKED rice.’

c. \* $K\epsilon$ - $watu$   $y\iota$  Kofi  $\epsilon$ - $gyi$  [ $i$ - $gyo$   $k\epsilon$  Ama  $\epsilon$ - $watu$ ]. (Complex NP Island)  
 NOM-pound FOC Kofi PST-eat PL-yam REL Ama PST-pound  
 Intended: ‘Kofi ate the yams that Ama POUNDED.’

d. \* $K\epsilon$ - $watu$   $y\iota$   $m\iota$   $\epsilon$ - $bise$   $f\epsilon\epsilon$  [ $nse$   $y\iota$   $\alpha$ - $watu$   $i$ - $gyo$ ]. (Wh- Island)  
 NOM-pound FOC 1<sup>ST</sup>.SG PST-ask COMP who FOC 3<sup>RD</sup>.SG-pound.PST PL-yam  
 Intended: ‘I asked who POUNDED yams.’

- The dependency between V occurrences is also A-bar-like with respect to complementarity with *wh*- question formation.

(15) a. \* $K\epsilon$ - $m\alpha$  ( $y\iota$ )  $n\epsilon$  ( $y\iota$ ) Ama  $\epsilon$ - $m\alpha$ ? (\*V focus + wh- movement)  
 NOM-kill FOC what FOC Ama PST-kill  
 Intended: ‘What did Ama SLAUGHTER?’

b. \* $N\epsilon$  ( $y\iota$ )  $k\epsilon$ - $m\alpha$  ( $y\iota$ ) Ama  $\epsilon$ - $m\alpha$ ? (\*V focus + wh- movement)  
 what FOC NOM-kill FOC Ama PST-kill  
 Intended: ‘What did Ama SLAUGHTER?’

c. \* $K\epsilon$ - $m\alpha$   $y\iota$  Ama  $\epsilon$ - $m\alpha$   $n\epsilon$ ? (\*V focus + wh- in-situ)  
 NOM-kill FOC Ama PST-kill what  
 Intended: ‘What did Ama SLAUGHTER?’

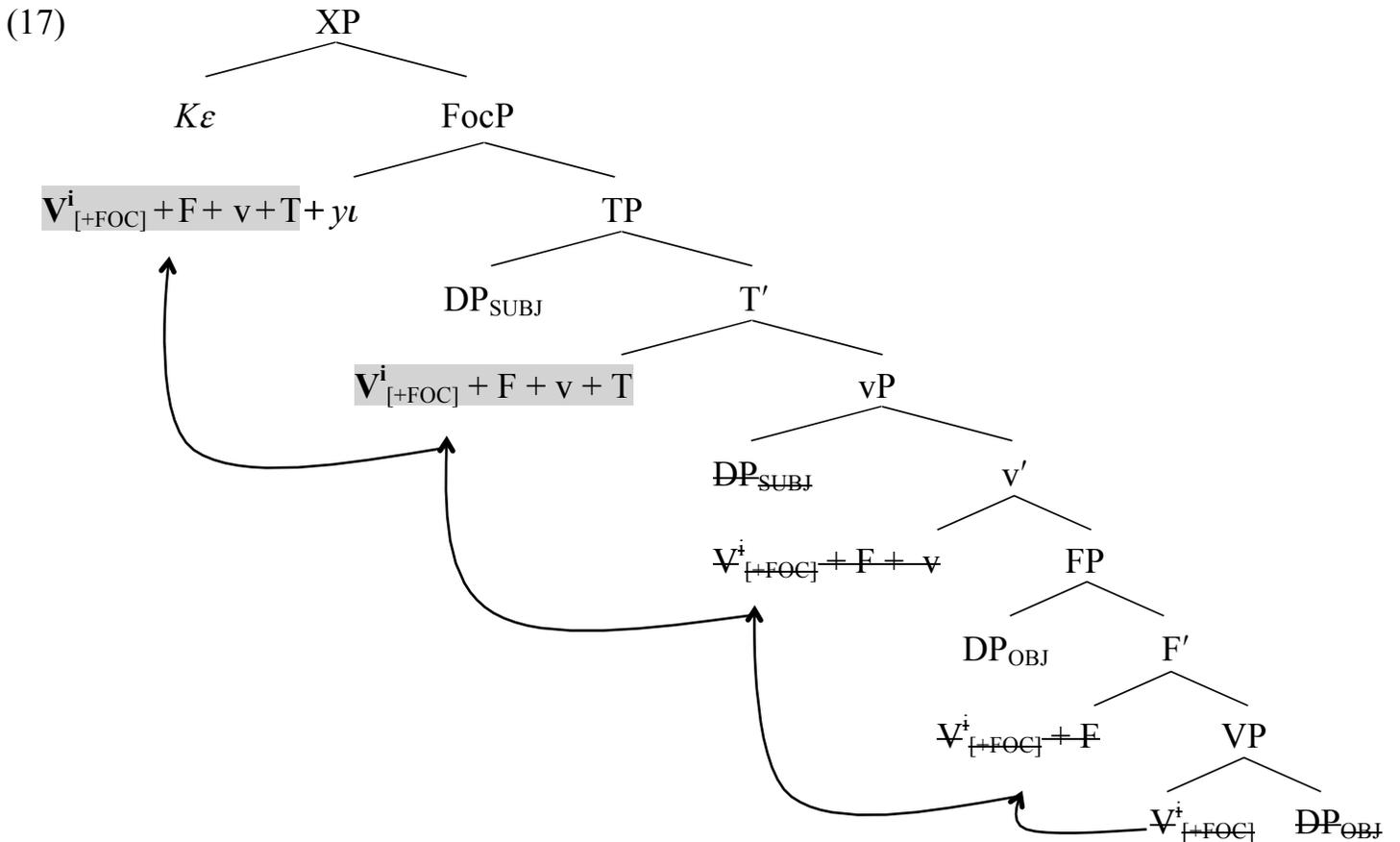
- The dependency is unlike A-bar movement with respect to gap formation.

- (16) a. [DP I-gyo] yɪ ɔkyɪ wɪ ε-dɪkɛ (\*i-gyo). (DP focus → gap)  
 PL-yam FOC woman the PST-cook PL-yam  
 ‘The woman cooked YAMS.’
- b. [AdvP Ndiye] yɪ ɔkyɪ wɪ ε-dɪkɛ i-gyo (\*ndiye). (Adv focus → gap)  
 yesterday FOC woman the PST-cook PL-yam yesterday  
 ‘The woman cooked yams YESTERDAY.’
- c. Kε- [dɪkɛ] yɪ ɔkyɪ wɪ ε-\*(dɪkɛ) i-gyo. (V focus → \*gap)  
 NOM- cook FOC woman the PST-cook PL-yam  
 ‘It was COOKING that the woman did to yams.’

4.2. Analysis

4.2.1. One V Chain

Many analyses of predicate fronting with doubling posit a single V chain with multiply realized links.



A single-chain analysis like (17) for Krachi predicts that if anything, the focused predicate can only pied-pipe tense markers in affirmative clauses. But tense markers cannot accompany the peripheral predicate (18) and surprising non-verbal material can be pied-piped (19).

- (18) a. \*Kε- [ε-dɪkε] yɪ ɔkyɪ wɪ ε-dɪkε i-gyo.  
NOM PST-cook FOC woman the PST-cook PL-yam
- b. \*Kε- [kε-dɪkε] yɪ ɔkyɪ wɪ kε-dɪkε i-gyo.  
NOM FUT-cook FOC woman the FUT-cook PL-yam

- (19) a. Ama ε-fɛ [a-kyʊŋ kpatii].  
Ama PST-sell PL-fowl few  
'Ama sold few fowls.'
- b. Kε-fɛ yɪ Ama ε-fɛ [a-kyʊŋ kpatii].  
NOM-sell FOC Ama PST-sell PL-fowl few  
'It was SELLING that Ama did to few fowls.'
- c. Kε- [fɛ **kpatii**] yɪ Ama ε-fɛ [a-kyʊŋ \_\_\_\_].  
NOM sell few FOC Ama PST-sell PL-fowl  
'It was SELLING that Ama did to FEW fowls.'  
NOT: 'It was FEW SELLINGS that Ama did to fowls.'

In addition, low (manner) adverbs may accompany the focused predicate.

- (20) a. Kofi ε-mɔ a-kyʊŋ bireŋ/damrase.  
Kofi PST-kill PL-fowl quickly/well  
'Kofi slaughtered fowls quickly/well.'
- b. \*Bireŋ/damrase Kofi ε-mɔ a-kyʊŋ.  
quickly/well Kofi PST-kill PL-fowl
- c. Kε-mɔ yɪ Kofi ε-mɔ a-kyʊŋ bireŋ/damrase.  
NOM-kill FOC Kofi PST-kill PL-fowl quickly/well  
'It was SLAUGHTERING that Kofi did to fowls quickly/well.'
- d. Kε- [mɔ **bireŋ/damrase**] yɪ Kofi ε-mɔ a-kyʊŋ.  
NOM-kill quickly/well FOC Kofi PST-kill PL-fowl  
'It was SLAUGHTERING QUICKLY/WELL that Kofi did to fowls.'

Structurally higher adverbs, however, may not accompany the focused predicate.

- (21) a. Kofi ε-mə a-kyuŋ ndiye.  
Kofi PST-kill PL-fowl yesterday  
'Kofi slaughtered fowls yesterday.'
- b. Ndiye Kofi ε-mə a-kyuŋ.  
yesterday Kofi PST-kill PL-fowl  
'Kofi slaughtered the fowls yesterday.'
- c. Kε-mə yɪ Kofi ε-mə a-kyuŋ ndiye.  
NOM-kill FOC Kofi PST-kill PL-fowl yesterday  
'It was SLAUGHTERING that Kofi did to fowls yesterday.'
- d. \*Kε- [mə ndiye] yɪ Kofi ε-mə a-kyuŋ.  
NOM-kill yesterday FOC Kofi PST-kill PL-fowl  
Intended: 'It was SLAUGHTERING YESTERDAY that Kofi did to fowls.'
- e. Kofi ε-mə a-kyuŋ kəsɪŋtɪŋ.  
Kofi PST-kill PL-fowl truly  
'Kofi truly slaughtered fowls.'
- f. Kəsɪŋtɪŋ Kofi ε-mə a-kyuŋ.  
truly Kofi PST-kill PL-fowl  
'Kofi truly slaughtered fowls.'
- g. Kε-mə yɪ Kofi ε-mə a-kyuŋ kəsɪŋtɪŋ.  
NOM-kill FOC Kofi PST-kill PL-fowl truly  
'It was SLAUGHTERING that Kofi truly did to fowls.'
- h. \*Kε- [mə kəsɪŋtɪŋ] yɪ Kofi ε-mə a-kyuŋ.  
NOM-kill truly FOC Kofi PST-kill PL-fowl  
Intended: 'It was TRULY SLAUGHTERING that Kofi did to fowls.'

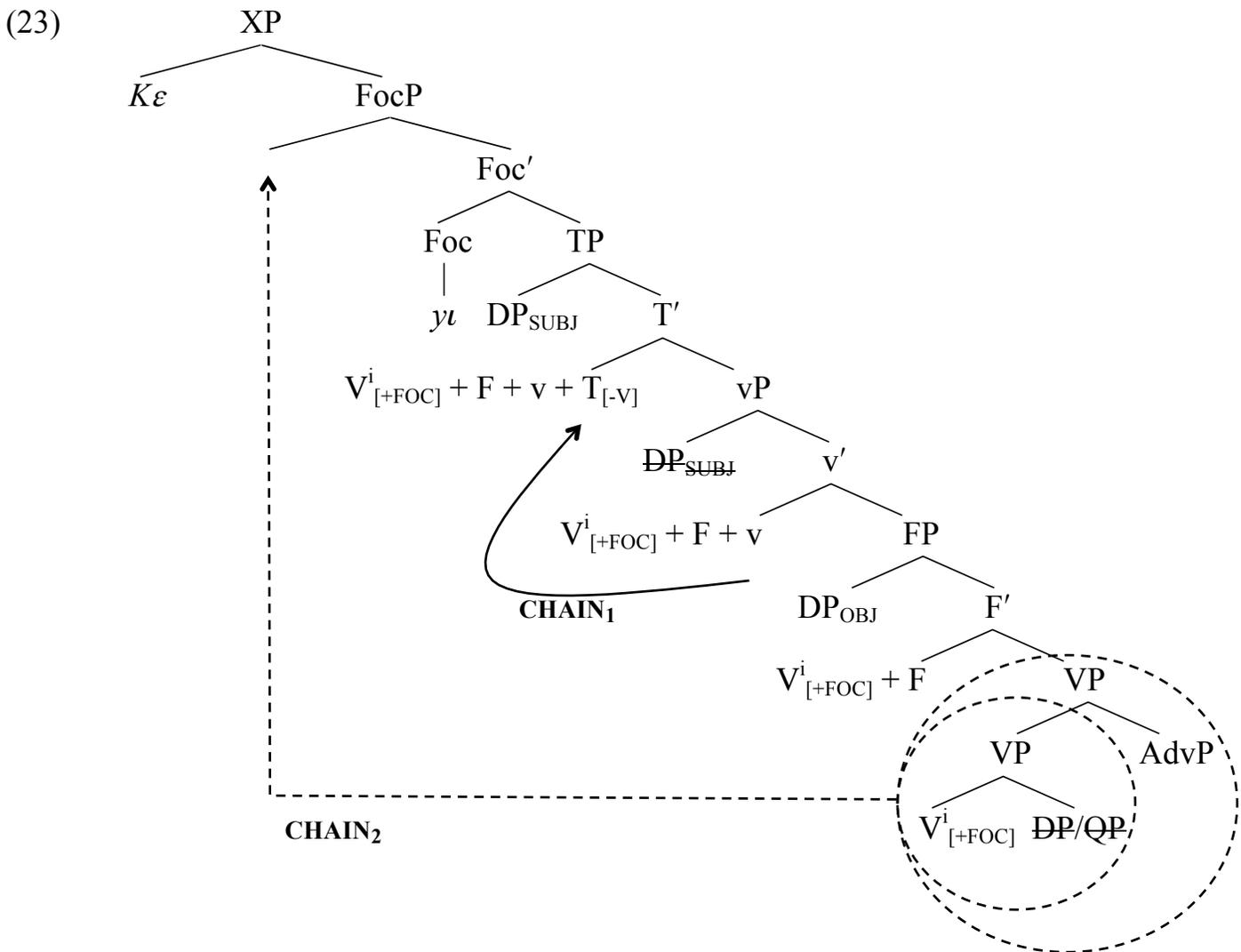
Furthermore, given the analysis of split V constructions sketched in (8) and word order facts like (7), repeated below in (22a-b), a single head movement chain analysis wrongly predicts that only the initial piece of the complex split verb may be focused (cf. (22c)).

- (22) a. Ama ε-**daa** a-kukutu **ke**.  
 Ama PST-taste PL-orange *ke*  
 ‘Ama tasted oranges.’
- b. \*Ama ε-**daa** **ke** a-kukutu.  
 Ama PST-taste *ke* PL-orange
- c. Kε-**daa** **ke** yɪ Ama ε-daa a-kukutu.  
 NOM-taste *ke* FOC Ama PST-taste PL-orange  
 ‘It was TASTING that Ama did to oranges.’

Lastly, a single-chain analysis provides no insight into the fact that predicate focus is island-sensitive (14b-d), unless one adopts the idea that heads can move like phrases (Donati 2006; Vicente 2009).

#### 4.2.2. Two V Chains

If we posit that two independent V chains are formed in the derivation of simple V focus, all of these facts can be accounted for.



- The bi-locational distribution of the predicate is derived in an unremarkable way: only the heads of the two chains are phonetically realized, the default chain resolution strategy.
- The focused predicate's inability to appear with tense markers is a consequence of the fact that it is part of a different chain than the independent  $v^0 \rightarrow T^0$  chain.
- The focused predicate's ability to appear with floating quantifiers, low adverbs, and the second piece of a split V is a consequence of the fact that chain<sub>2</sub> involves a remnant VP (Nishiyama & Cho 1998; Koopman 1999; Cho & Nishiyama 2000; Abels 2001; Nunes 2003, 2004; Hiraiwa 2005; Landau 2006, among others).
- The A-bar properties of the focused predicate (unbounded movement, island sensitivity, etc.) stem from the fact that a phrase is moving, not a head.

## 5. EXTENDING THE ANALYSIS TO VO & OV FOCUS

### 5.1. VO Focus

I propose that cases like (24) involve the formation of two V chains, only this time a category larger than VP is fronted to the left periphery.

- (24) a. Ke- [dʉkɛ i-gyo] yʉ Ama ɛ-dʉkɛ (\*i-gyo). (V + O)  
 NOM cook PL-yam FOC Ama PST-cook PL-yam  
 'It was COOKING YAMS that Ama did.'
- b. Ke- [tʉŋ i-gyo yɛ ɔsʉkan] yʉ Ama ɛ-tʉŋ (\*i-gyo) (\*yɛ ɔsʉkan). (V+O+PP)  
 NOM cut PL-yam with knife FOC Ama PST-cut PL-yam with knife  
 'It was CUTTING YAMS WITH A KNIFE that Ama did.'
- c. Ke- [gyi i-gyo wʉ kɛ Ama ɛ-dʉkɛ wʉ] yʉ Kofi e-gyi. (V + RC)  
 NOM eat PL-yam the REL Ama PST-cook the FOC Kofi PST-eat  
 'It was EATING THE YAMS THAT AMA COOKED that Kofi did.'
- d. Ke- [gyɛnt fɛɛ Ama ɛ-dʉkɛ i-gyo] yʉ Kofi ɛ-gyɛnt. (V + CP)  
 NOM think COMP Ama PST-cook PL-yam FOC Kofi PST-think  
 'It was THINKING THAT AMA COOKED YAMS that Kofi did.'
- e. Ke- [bise fɛɛ nɛɛ yʉ ɔ-dʉkɛ i-gyo] yʉ Kofi e-bise. (V + CP)  
 NOM ask COMP who FOC 3<sup>RD</sup>.SG-cook PL-yam FOC Kofi PST-ask  
 'It was ASKING WHO COOKED YAMS that Kofi did.'

A variety of facts suggest that cases like (24) involve a type of V fronting in which vP is pied-piped.

- All objects of a ditransitive verb must accompany the focused predicate.

(25) a. Ama ε-kyuηε Kofi owore.  
Ama PST-send Kofi book  
'Ama sent Kofi a book.'

b. Kε- [kyuηε Kofi owore] yι Ama ε-kyuηε.  
NOM send Kofi book FOC Ama PST-send  
'It was SENDING KOFI A BOOK that Ama did.'

c. \*Kε- [kyuηε Kofi] yι Ama ε-kyuηε owore.  
NOM send Kofi FOC Ama PST-send book

d. \*Kε- [kyuηε owore] yι Ama ε-kyuηε Kofi.  
NOM send book FOC Ama PST-send Kofi

- Only low adverbs may accompany the focused predicate phrase.

(26) a. Kε- [dɪkε i-gyo **bireη/damrase**] yι ɔkyι wυ ε-dɪkε.  
NOM cook PL-yam quickly/well FOC woman the PST-cook  
'It was COOKING YAMS QUICKLY/WELL that the woman did.'

b. \*Kε- [dɪkε i-gyo **ndiye/paa**] yι ɔkyι wυ ε-dɪkε.  
NOM cook PL-yam yesterday/certainly FOC woman the PST-cook

- Neither subjects nor tense markers may appear inside the fronted predicate phrase.

(27) a. \*Kε- [ɔkyι wυ dɪkε i-gyo] yι ε-dɪkε.  
NOM woman the cook PL-yam FOC PST-cook

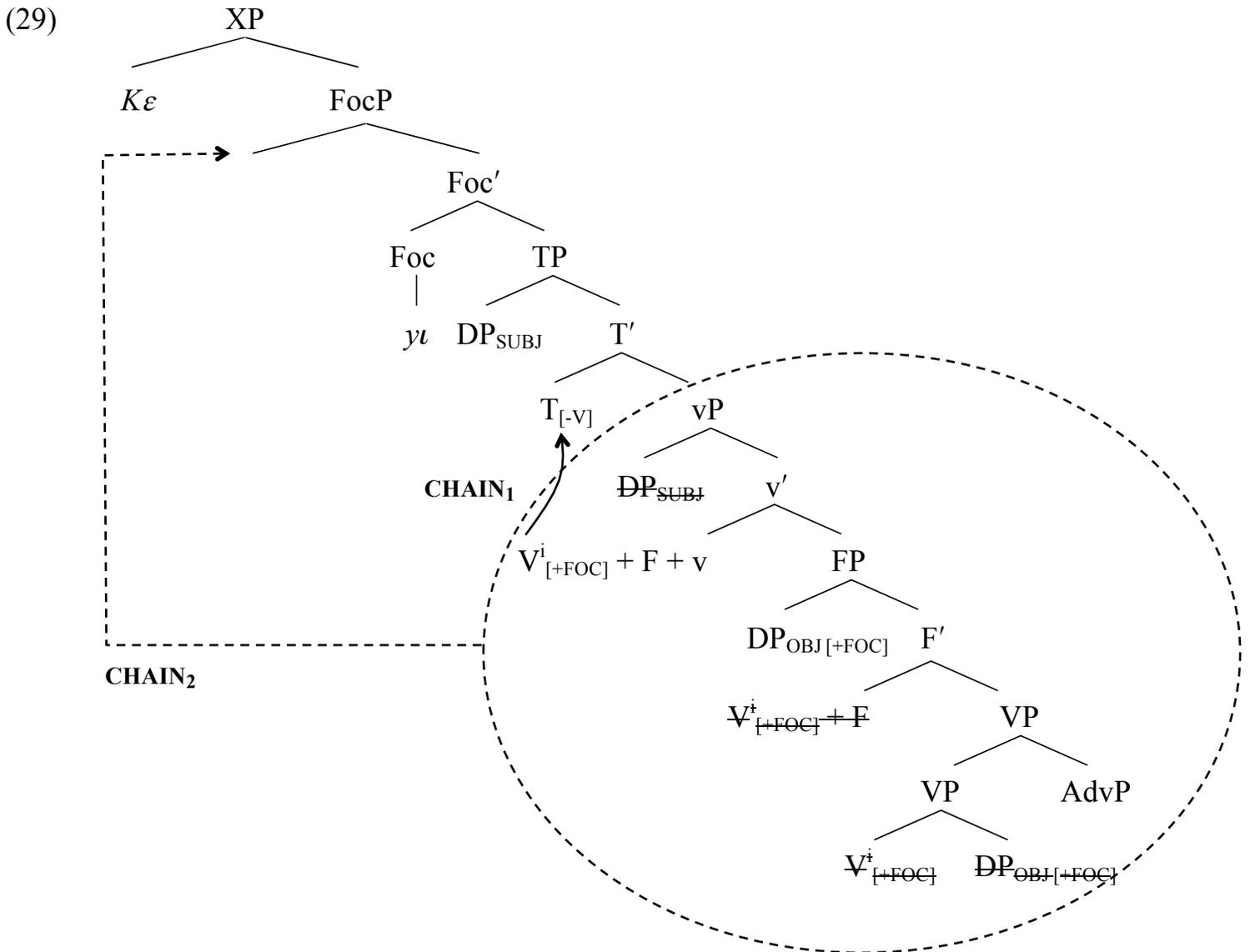
b. \*Kε- [kε-dɪkε i-gyo] yι ɔkyι wυ kε-dɪkε.  
NOM FUT-cook PL-yam FOC woman the FUT-cook

- Negation may not appear on the focused predicate, though it may appear on the lower copy.

(28) a. \*Kε- [**m-mɔ** a-kyuη] yι Kofi ε-(m-)mɔ.  
NOM NEG-kill PL-fowl FOC Kofi PST-NEG-kill

- b.  $K\epsilon$ - [mɔ a-kyʊŋ] yɪ Kofi  $\epsilon$ -m-mɔ.  
 NOM kill PL-fowl FOC Kofi PST-NEG-kill  
 ‘It was SLAUGHTERING FOWL that Kofi did not do.’

I analyze Krachi VO focus constructions as instances of dual chain formation involving  $v^0 \rightarrow T^0$  movement and  $vP \rightarrow \text{Spec, FocP}$  movement.<sup>1</sup>



<sup>1</sup> Given the possibility of floating vP-internal subject quantifiers (5b), this analysis predicts the existence of [ $k\epsilon$  Q<sub>SUBJ</sub> V O] Foc... constructions. It also predicts that unlike simple predicate focus, V doubling would be blocked in this construction if  $v^0 \rightarrow T^0$  movement were blocked. I currently lack the necessary data to verify the accuracy of either prediction and leave this for future research.

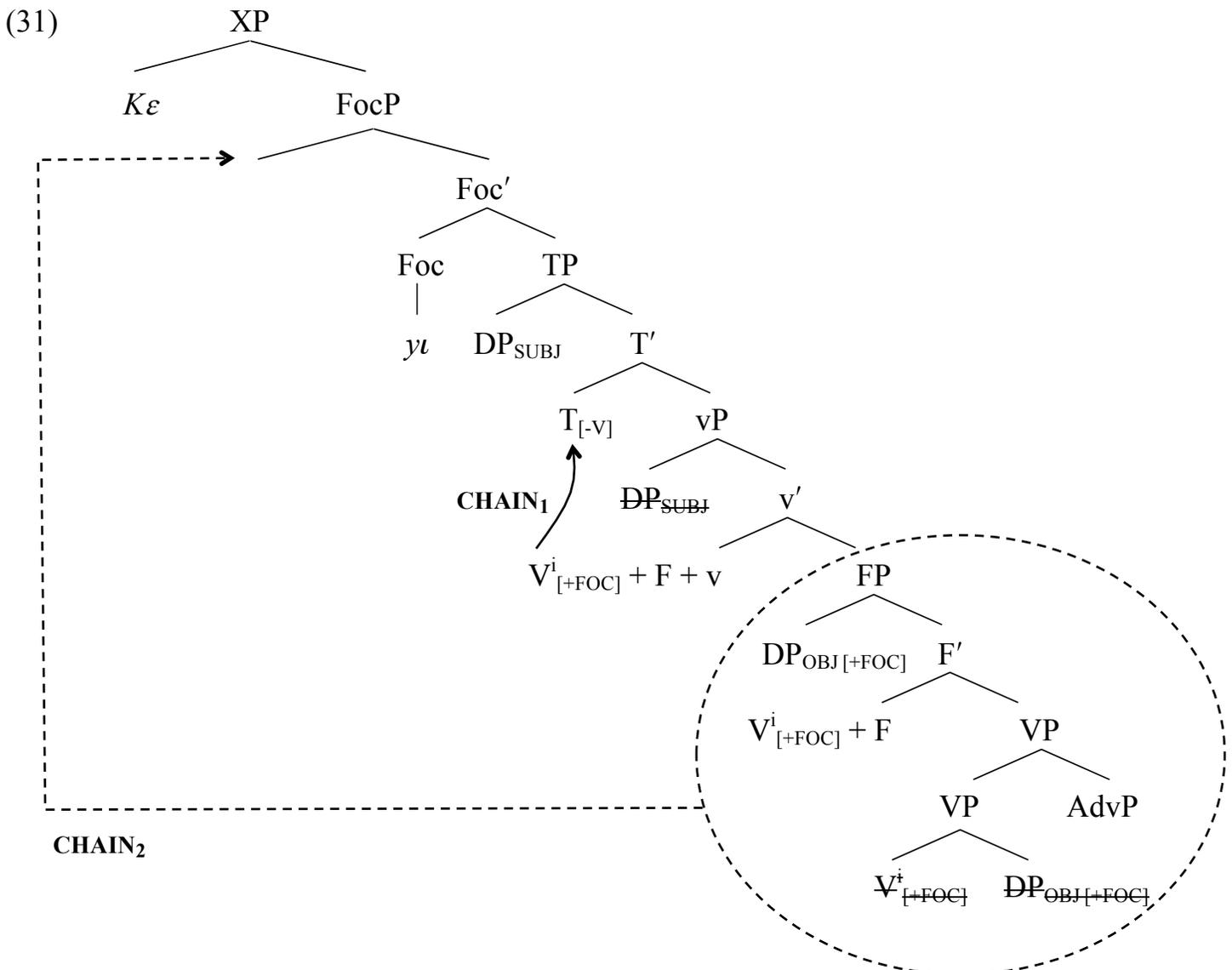
As before, only the heads of the two chains are preserved at PF, obviating the need to invoke the realization of multiple chain-internal copies.

Note that the mechanics of the VO focus derivation sketched in (29) require the assumption of PHASE TRANSFER DELAY (Chomsky 2001) or some notion of PHASE EXTENSION (den Dikken 2007, Gallego 2010).

### 5.2. OV Focus

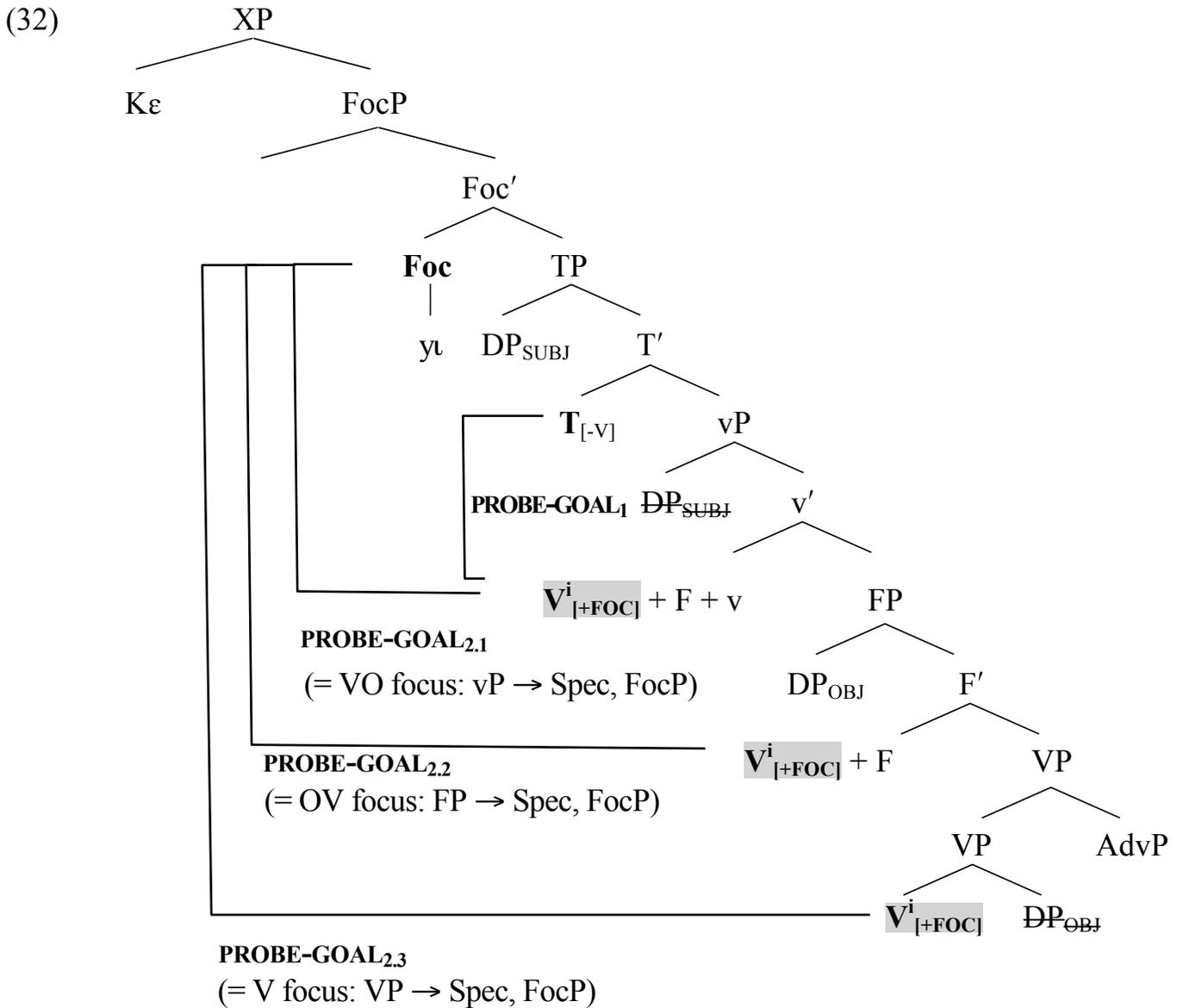
To account for OV focus structures like (30) below, we might invoke a similar dual chains approach, only this time, the intermediate category FP is fronted.

- (30) Ke- [i-gyo dtkε] yt əkyt wu (\*i-gyo) ε-dtkε (\*i-gyo).  
 NOM PL-yam cook FOC woman the PL-yam PST-cook PL-yam  
 ‘It was COOKING YAMS that the woman did.’



## 6. REFINING THE ANALYSIS

The derivations of V focus (23) and OV focus (31) sketched above suffer a technical flaw. The formation of CHAIN<sub>2</sub> in each derivation violates Relativized Minimality/Minimal Link Condition.



In each derivation, although different probes target the same goal ( $V_{[+FOC]}^i$ ), they do not always target the same/highest copy of that goal.

To rectify this problem, I propose that all instances of predicate focus with verb doubling in Krachi involve the formation of identical V chains:  $v^0 \rightarrow T^0$  &  $vP \rightarrow \text{Spec, FocP}$ . These V chains are formed simultaneously, that is, in parallel (Kandybowicz 2008, Aboh & Dyakonova 2009).

Differences in the PF interpretation of the two vP copies account for the surface differences between the predicate focus constructions in the language. (For a proposal similar in spirit, see Jo 2013 on predicate contrastive topic constructions in Korean.)

Technical assumptions:

- Only phase heads trigger movement operations (Chomsky 2008).
- A' chains are triggered by EDGE FEATURES (Chomsky 2008).
- $\text{Foc}^0$  is a phase head and bears a +Foc edge feature [eFoc].
- $T^0$  inherits its [V] feature from  $\text{Foc}^0$ .
- $\text{Foc}^0$  &  $T^0$  probe simultaneously.

Therefore, when  $V^0$  enters the derivation with an interpretable focus feature, it is simultaneously targeted by  $\text{Foc}^0$  &  $T^0$ , giving rise to the formation of two V chains:

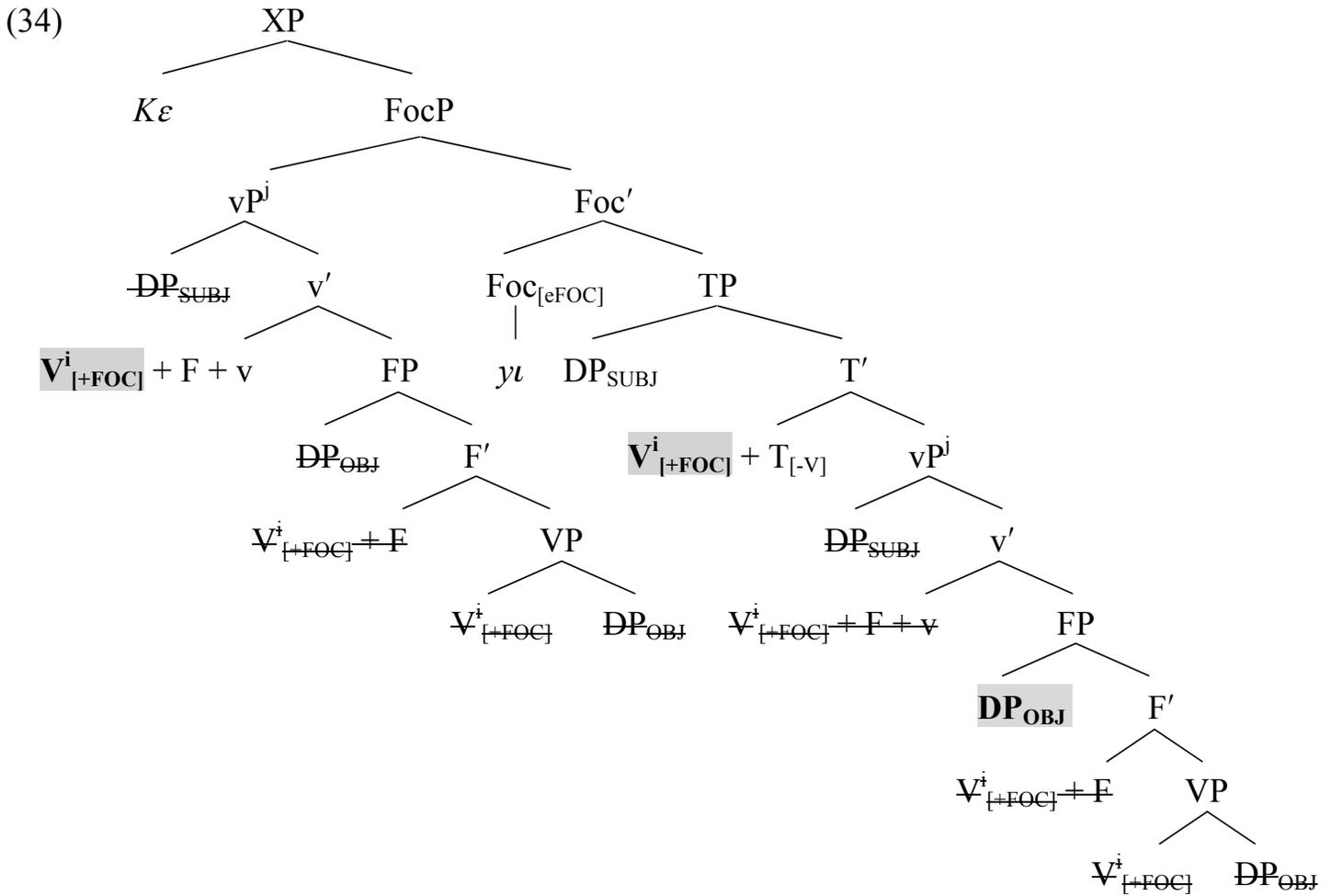
- $v^0$  raises to  $T^0$
- $v^0$  pied-pipes vP to Spec, FocP

### 6.1. *Simple V Focus Redux*

I propose that simple V focus in Krachi involves scattered deletion of copies at PF (i.e. deletion of different pieces of different chain links, allowing the contents of a chain to be pronounced across multiple links):

- The only peripheral vP-internal copy that survives at PF is the highest copy of V.
- In the lower vP, the only copy that survives is the shifted object in Spec, FP.

- (33)  $K\varepsilon$ - [dɪkɛ] yɪ ɔkyɪ wɪ ɛ-dɪkɛ i-gyɔ.  
 NOM cook FOC woman the PST-cook PL-yam  
 ‘It was COOKING that the woman did to yams (not, say, eating).’

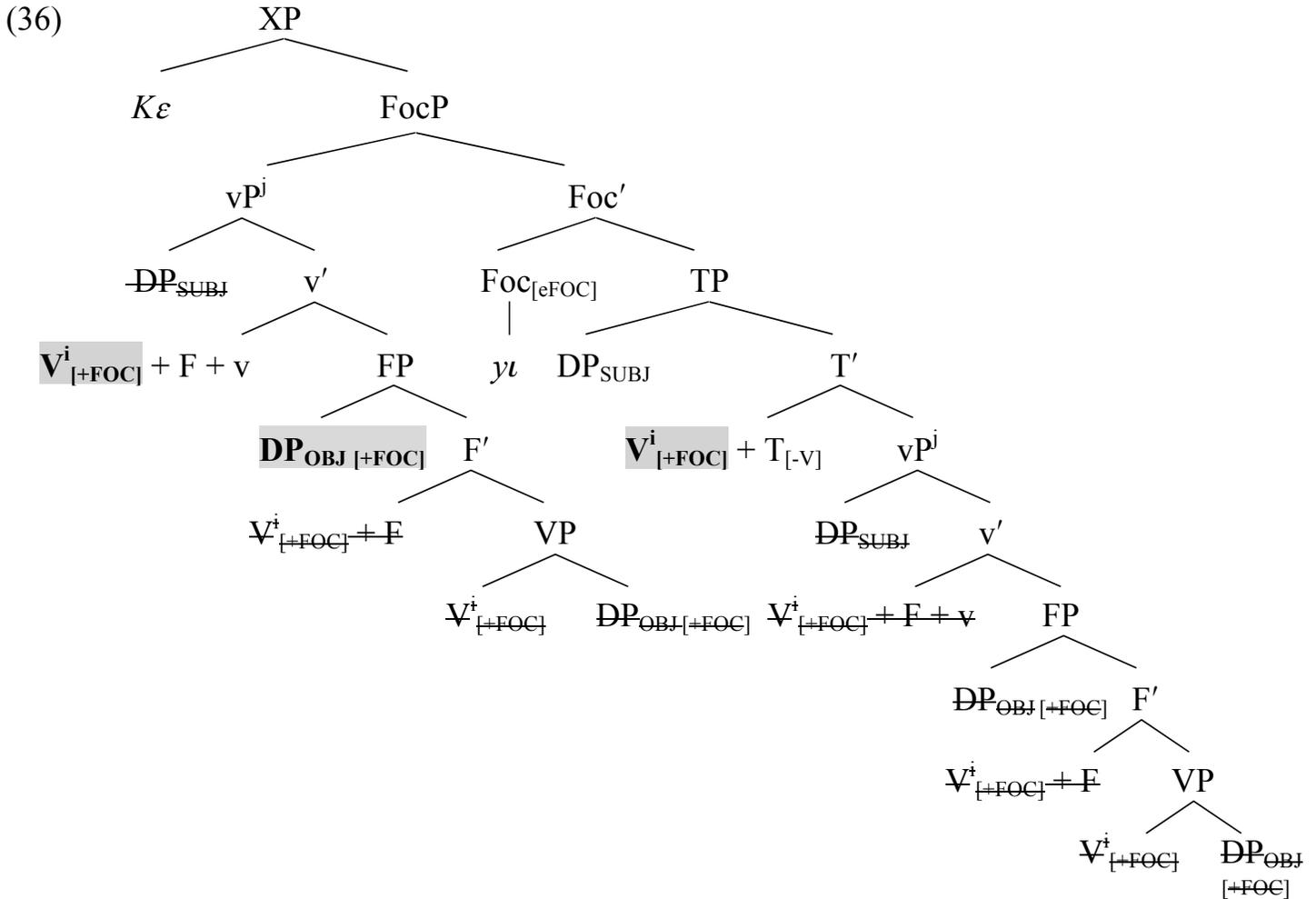


6.2. *VO Focus Redux*

In this derivation, the peripheral vP-internal copies that survive at PF are the highest copy of V and the highest copy of the shifted object.

All material internal to the lower vP is deleted at PF.

- (35) Kε- [dɪkɛ i-gyo] yɪ ɔkyɪ wɪ ε-dɪkɛ.  
 NOM cook PL-yam FOC woman the PST-cook  
 ‘It was COOKING YAMS that the woman did (not, say, eating rice).’

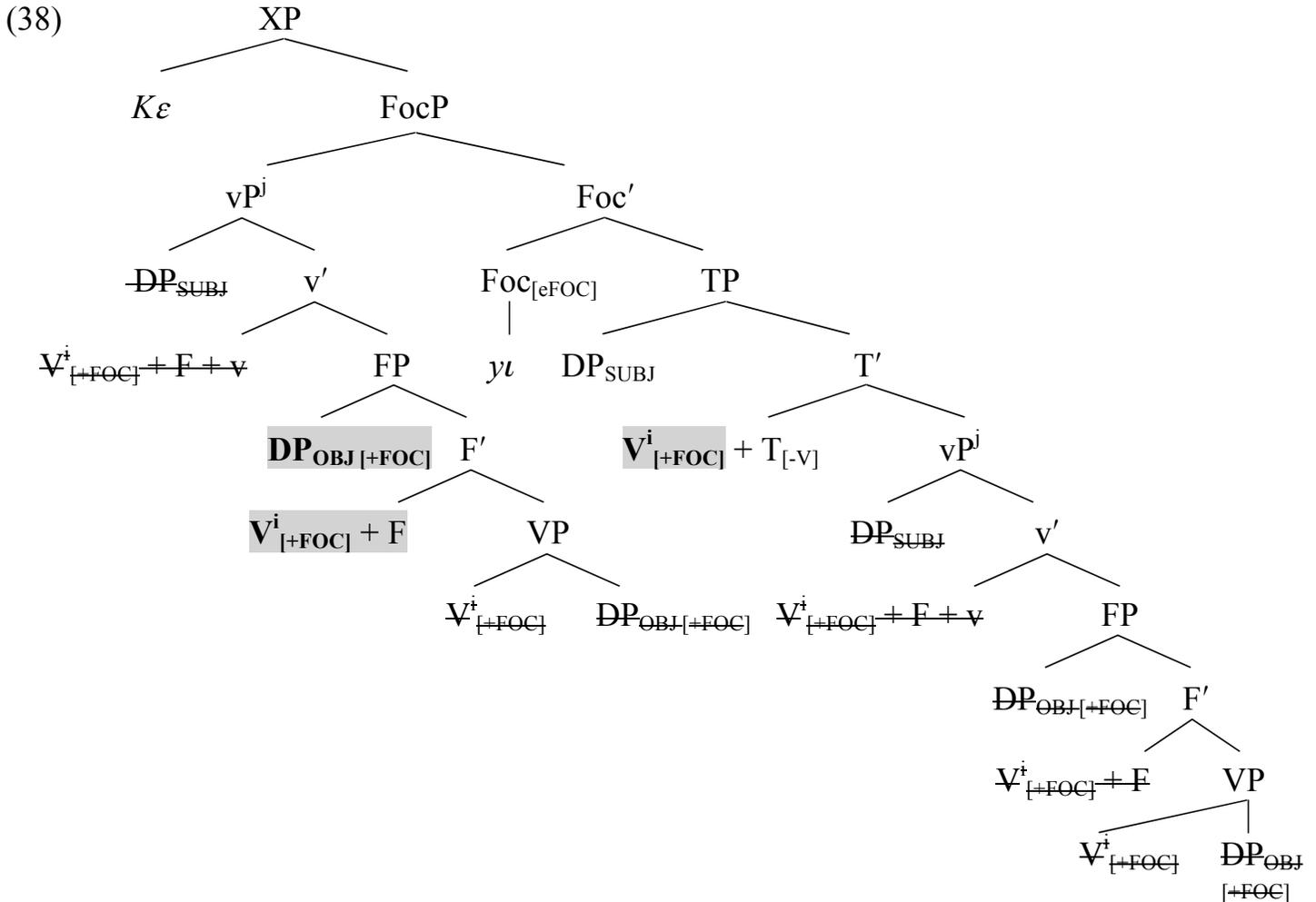


### 6.3. OV Focus Redux

In this derivation, the highest copy of the shifted object inside the peripheral vP survives at PF, but the highest vP-internal copy of V does not. For reasons that are currently unclear, a lower peripheral vP-internal copy of V is interpreted instead.

As with VO focus, all material internal to the lower vP is deleted at PF.

(37) **Kε- [i-gyo dɪkɛ]** yɪ ɔkyɪ wɔ ε-dɪkɛ.  
 NOM PL-yam cook FOC woman the PST-cook  
 ‘It was COOKING YAMS that the woman did (not, say, eating rice).’



## 7. CONCLUSION

I’ve proposed that all instances of predicate fronting with verb doubling in Krachi are characterized by the formation of identical parallel chains ( $v^0 \rightarrow T^0$  &  $vP \rightarrow \text{Spec, FocP}$ ) and that their surface differences stem from differences in the PF interpretation of the two vP copies.

The implications of this analysis are as follows:

- Krachi predicate focus provides additional support for the existence of PARALLEL CHAIN FORMATION (Chomsky 2008) in UG.

- Krachi predicate focus provides additional support for analyses like Kandybowicz 2008 and Aboh & Dyakonova 2009 that attempt to derive verb doubling from narrow syntactic mechanisms like parallel chain formation rather than multiple copy spell-out at PF.
- Predicate focus in Krachi provides additional support for remnant phrase analyses of predicate cleft constructions (Nishiyama & Cho 1998; Koopman 1999; Cho & Nishiyama 2000; Abels 2001; Nunes 2003, 2004; Hiraiwa 2005; Landau 2006, among others).
- Krachi predicate focus provides additional support for PF scattered deletion (Wilder 1995, Ćavar & Fanselow 1997, Bošković 2001).
- Predicate focus in Krachi provides additional support for PHASE TRANSFER DELAY (Chomsky 2001).
- Krachi predicate focus provides additional support for the existence of head movement in narrow syntax.

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