Edge Feature and Labeling Algorithms in Coordination

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1. Introduction

The goal of this presentation is to reveal the nature of coordination. We propose that conjunction is the realization of Edge Feature (EF). Furthermore, following Chomsky (2005), we assume that one or more objects can project. Then, we have two ways of the labeling algorithms. One consists of the intersection/union set of two objects (Symmetrical Structures). The other is the projection of one of two objects (Asymmetrical Structures). As a consequence of the present proposal and labeling algorithms, we predict (i) that conjunction overtly reflects the properties of EF and (ii) that symmetrical structures and asymmetrical structures behave differently. We argue that these predictions are borne out by various kinds of phenomena.

Organization of This Presentation

Section 2: introduces the framework
Section 3: offers the proposal and predictions
Section 4: presents evidence for the proposal
Section 5: considers symmetrical structures
Section 6: considers asymmetrical structures
Section 7: concludes this presentation

2. The Framework

2.1. Edge Feature

(1) a. [M]erge will always be to the edge of Z [an element—SK], so we can call this an *edge feature* (EF) of W [a lexical item—SK].
b. EF is undeletable, a property of UG.
c. The property of unbounded Merge reduces to the statement that LIs [Lexical Items —SK] have EF. (Chomsky (2006: 6))

2.2. Merge and the Labels

(2) Merge
a. Applied to two objects α and β, Merge forms the new object K.
b. K must therefore at least (and we assume at most) be of the form {γ, {α, β}}, where γ identifies the type to which K belongs, indicating its relevant properties. Call γ the *label* of K. (Chomsky (1995: 243))

(3) The Labels
   a. the intersection of α and β
   b. the union of α and β[1]
   c. one or the other of α, β (ibid.: 244)

(4) [T]he labeling algorithms apply freely. (Chomsky (2005: 12))

3. The Proposal and Predictions

(5) The Proposal
Conjunction (Conj) is the realization of Edge Feature (EF). When the same categories are externally merged, EF is realized as Conj.

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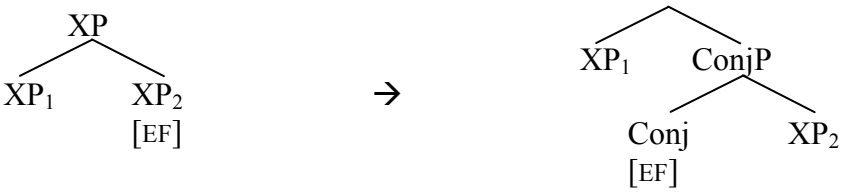
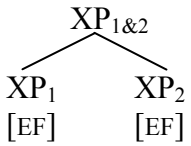
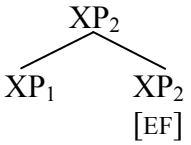


(7) Two Types of Coordinate Structures
   a. Symmetrical Structures (the intersection/union of α and β)
      In this structure, XP_1 and XP_2 equally project. We assume that there is a parallelism between XP_1 and XP_2.[2]



   b. Asymmetrical Structures (one or the other of α, β)
      In this structure, only XP_2 projects. We assume that there is no parallelism between XP_1 and XP_2.



(8) The Predictions
   a. Conjunction overtly reflects the properties of EF.
   b. Symmetrical structures and asymmetrical structures behave differently.

[1] See Cann (1999) and Yang (1999) for the arguments for this possibility of projection.
[2] See Goodall (1987), Moltmann (1992), Munn (1993), Takahashi (1994), Fox (2000), Hornstein and Nunes (2002), te Velde (2005), Kato (2006), among others for the arguments in favor of parallelism requirement to conjuncts.

4. The Realization of Edge Feature

4.1. The Category Sensitive Realization of EF

If conjunction is the realization of EF in a lexical item, we predict that the way of the realization of EF depends on categories.

(9) Japanese

a. [$_{DP}$ Taroo]-**to** [$_{DP}$ Hanako]
Taroo -**and** Hanako
'Taroo and Hanako'

b. [$_{AP}$ akaku]-**te** [$_{AP}$ atsui] hon
red -**TE** thick book
'the red and thick book'

c. [$_{CP}$ musuko-ga sotugyoo sita]-**si** [$_{CP}$ musume-ga yome-ni itta]
son-Nom graduation did -**and** daughter-Nom bride-Dat went
'The son graduated and the daughter got married.' (Zhang (2006a: 10, fn. 4))

(10) Xârâcùù

a. [$_{NP}$ gu] **mê** [$_{NP}$ gè]
2SG **and** 1SG
'you and I'

b. [$_{VP}$ Ru cha] **mê** [$_{VP}$ mara].
3DU chear.bush **and** work.in.firlds
'They cleared the bush and worked in the fields.'

c. [$_{CP}$ È nä fade] **nä** [$_{CP}$ è nä bare tèpe].
3SG IMPF walk **and** 3SG IMPF also talk
'He speaks as he is walking.' (Haspelmath (2004: 11))

(11) Sissala

a. [$_{DP}$ Pilɛ́kɛ́] **rí** [$_{DP}$ wɔwúlɛ́nɛ́rɛ́]nɛ́ muɛ́ hé baksɛ
Chameleon **and** spider SDM went put farms
'The chameleon and the spider went and made their farms.'

b. [$_{CP}$ Betúú coŋgoroŋ pérí mɛ́ɛ́trɛ́ bɛllɛ] **ká** [$_{CP}$ ú zíŋ má peri
Elephant height reach meters two **and** his weight also reach
kilo buı-ammuɔ]
kilos thousand-five
'The height of the elephant reaches two meters and his weight reaches five thousand kilos.' (Blass (1989: 1, 15), cited in Johannessen (1998: 85))

4.2. The Position of Edge Feature

If EF is one of the features in a lexical item, we predict that the EF goes with the object that includes it.

(12) a. John left, and he didn't even say goodbye.
b. John left. **And** he didn't even say goodbye.
c. * John left **and**. He didn't even say goodbye. (Ross (1967: 163))

(13) Ndebele
Abalungu **la**-ma-bhunu a-yahleka.
2PL-whiteman **conj**-6PL-Afrikaaner 6PL-laughing
'The Englishmen and the Afrikaaners are laughing.'
(Marušič, Nevins, and Saksida (2007: 12))

4.3. Coordination of X^0 Elements

If EF is one of the features included in a lexical item, we predict that X^0 elements can also be conjoined.

(14) a. Hobbs [$_V$ whistled] and [$_V$ hummed] the same tune. (Borsley (2005: 471))
b. He was there [$_P$ before] and [$_P$ after] the lecture. (Zoerner (1999: 338))
c. They made [$_A$ salmon] and [$_A$ cucumber] sandwiches.
(Quirk, Greenbaum, Leech, and Svartvik (1985: 957))

4.4. The Unbounded Property of Edge Feature

Since EF plays the role of unbounded Merge, we predict that more than two elements can be connected.

(15) a. [Hobbs] and [Rhodes] and [Barnes] each lifted the rock.
(Borsley (2005: 468))
b. [John], [Bill], [Tom], and [several of their friends] visited us last night.
(Chomsky (1965: 11))

(16) a. [He walked out to the porch] and [he looked carefully around the garden] and [he jumped]. (Gleitman (1969: 80))
b. [Tom picked these grapes], and [I washed some turnips], and [Suzie will prepare these grapes]. (Ross (1967: 177))

5. Symmetrical Structures

This section considers the symmetrical structures, in which the same categories merge and both objects equally project.

5.1. The Internal Structure

5.1.1. The Existence of Initial Edge Feature and the Distributive Reading

In symmetrical structures, there is a parallelism between two objects and both of them merge and project. If so, we expect that both EFs included in XP_1 and XP_2 can be realized as conjunction.

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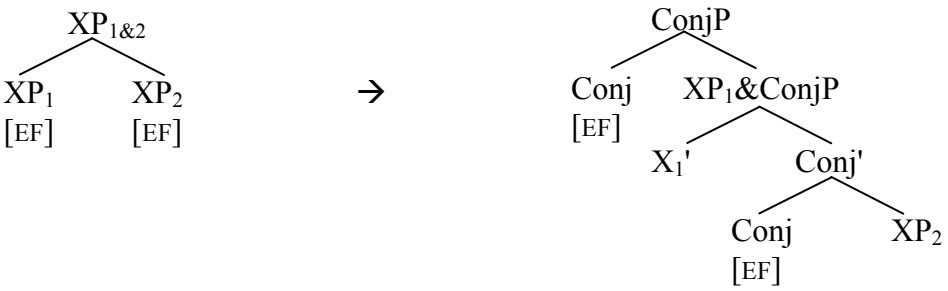


(18) French

Jean connaît **et** Paul **et** Michal.
Jean knows **and** Paul **and** Michel (Kayne (1994: 58))

(19) Serbo-Croatian

(I) Marija **(i)** Milan, **i** Peter studiraju lingvistiku.
and Mary **and** Milan **and** Peter study linguistics
'Mary (and) Milan and Peter are students of linguistics.' (Progovac (1999a: 25))

(20) [**Both** [Maria] and [Peter]] will bring a bottle of wine. (Progovac (1999b: 142))

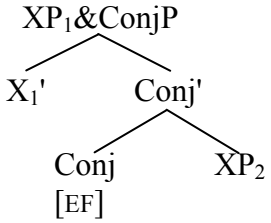
Since there is a parallelism between objects in symmetrical structures, each object has its own independent interpretation. If so, we predict that the whole structures are interpreted as the distributive reading.

(21) *[**Both** [Maria] and [Peter]] met in the park. (ibid.: 143)

Thus, symmetrical structures have the distributive reading.

Notice, however, that the initial EF is optional. For this reason, we assume that the internal structure of symmetrical structures is the one given in (22).

(22)



5.1.2. Binding Relation

If the internal structure for symmetrical structures is the one in (22), we predict that the first object (X_1') occupies the structurally higher position than the second object (XP_2).

(23) a. **Every man$_i$** and **his$_i$** dog went to mow a meadow.
b. ***His$_i$** dog and **every man$_i$** went to mow a meadow. (Munn (1993: 16))

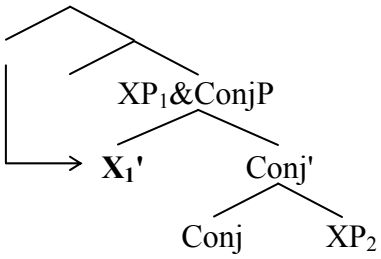
(24) a. **John$_i$**'s dog and **he$_i$/him$_i$** went for a walk.
b. ***He$_i$** and **John$_i$**'s dog went for a walk. (ibid.)

(25) Japanese
a. **John**-to **kare-zisin**-no hahaoya-ga gakkoo-ni itta.
John-CONJ **he-self**-GEN mother-NOM school-to went
'John and his mother went to school.'
b. ***kare-zisin**-no hahaoya-to **John**-ga gakkoo-ni itta.
he-self-GEN mother-CONJ **John**-NOM school-to went
'John and his mother went to school.' (Kasai and Takahashi (2001: 21))

5.1.3. Agreement

If the internal structure for symmetrical structures is the one shown in (22), then we predict that the first object (X_1') can enter into an agreement relation with the probe.

(26)



Probe T

(27) a. There **was** [**a man** and a woman] reading the same book.
b. There **was** [**a man** and a woman] reading different books.
(Munn (1999: 651))

(28) Middle English (Shakespeare, First Part of *Henry the Fourth*, 1.2.126)
How **agrees** [**the Diuell** and thee] about thy Soule? (Jespersen (1913: 175))

(29) Lebanese Arabic
Neem [**huwwe** w hiyye] bi l-bet.
slept-MS **he** and she in the-house
'They slept in the house.' (Aoun, Benmamoun, and Sportiche (1994: 210))

(30) Slovene
[Knjige in peresa] so se **podražile**
book.FEM.PL and pen.NEUT.PL are selves **got.dear.FEM.PL**
'books and pens have become more expensive.' (Badecker (2007: 1562))

Probe C
(31) Frisian
... **dat-st** [**do** en Marie] dit wykein yn Rome west ha.
that-2SG **you-2SG** and Marie-$_{3SG}$]$_{2PL}$ this weekend in Rome been have-$_{PL}$
'... that you and Marie have been in Rome this weekend.' (Koppen (2006: 126))

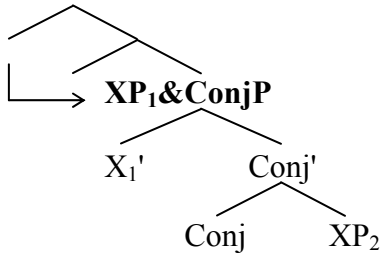
Probe D
(32) Brazilian Portuguese
Eu encontrei **os** **meus** **velhos** **amigos** e amigas
I met **the-M.PL** **my-M.PL** **old-M.PL** [**friends-M.PL** and friends-F.PL]
famosos.
famous-M.PL
'I met my famous old male friends and (my famous old) female friends.'
(Munn (2000: 10))

Probe V
(33) Swahili
Amina a-li-**mw**-ona [**Haroub** na Nayla]
Amina SC3SG-PAST-**OC3SG**-see **Haroub** and Nayla
'Amina saw haroub and Nayla.' (Marten (2005: 541))

(34) Ndebele
[I-xhegu lesa-lukazi] **si-za-li-nceda**
5/6SG-oldman CONJ.7/8SG-oldwoman **we-will-5/6SG-help**
'The old man and the old woman, we will help.' (Badecker (2007: 1562))

If the internal structure for symmetrical structures is the one shown in (22), then we predict that the whole projected object can enter into an agreement relation with the probe.

(35)



Probe T

(36) There **were** [**a man and a cat**] in the kitchen.[3] (Wilder (1997: 65))

(37) Over there **are** [**Jim and Sue**], waiting patiently. (te Velde (2005:24))

(38) Never **have** [**Jim and Sue**] met so many students of linguistics. (ibid.)

(39) a. [**A man and a woman**] **are** in the house.
b. [**A man and five women**] **are** in the house.
c. [**Four men and a woman**] **are** in the house. (Boškovič (1997: 87))

Probe C

(40) Lapscheure Dutch
Kpeinzen **da-n** [**Valère en Pol**] morgen goa-n
I.think **that-3PL** [**Valère-3SG and Pol-3SG**]-3PL tomorrow go-PL.
'I think that Valère and Pol will go tomorrow.' (Koppen (2006: 134))

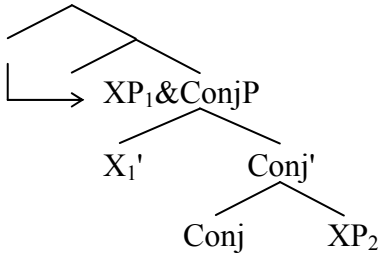
Probe V

(41) Swahili
a. Amina a-li-**wa**-ona [**Haroub na Nayla**]
Amina SC3SG-PAST-**OC3PL**-see **Haroub and Nayla**
'Amina saw Haroub and Nayla.' (cf. (33), Marten (2005: 541))
b. [Haroub na Nayla] Amina a-li-**wa**-ona
Haroub and Nayla Amina SC3SG-PAST-**OC3PL**-see
'Haroub and Nayla, Amina saw.' (ibid.: 543)

[3] It seems unclear whether Full Conjunction Agreement in English *there*-construction is acceptable or not acceptable.
(i) There is/*are a man and a woman in the garden. (Munn (1993: 95))
(ii) There is /??are a man and three children at the front door. (Progovac (1998: 4))

If the internal structure for symmetrical structures is the one shown in (22), then we predict that the part of the projected object can enter into an agreement relation with the probe.

(42)



Probe T

(43) Palestinian Arabic

a. [el-walad we-l-banaat] gataluu el-bisse
the-boy and-the-girls killed-**3PL.MASC** the-cat
'The boy and the girls killed the cat.'

b. [el-banaat we-l-walad] gataluu el-bisse
the-girls and-the-boy killed-**3PL.MASC** the-cat
'The girls and the boy killed the cat.'

c. gatalen [el-banaat we-l-walad] el-bisse
killed-**3PL.FEM** the-girls and-the-boy the-cat
'The girls and the boys killed the cat.'

d. gatal [el-walad we-l-banaat] el-bisse
killed-**3SG.MASC** the-boy and-the-girls the cat
'The boy and the girls killed the cat.' (van Oirsouw (1987: 232))

(44) Slovene

Knjige **in** **peresa** so se **podražila**
book.FEM.PL **and** **pen.NEUT.PL** are selves **got.dear.NEUT.PL**
'books and pens have become more expensive.' (cf. (30), Badecker (2007: 1562))

(45) Latin

[Populi **provinciaeque**] **liberatae** sunt
people-MASC.PL **province-FEM.PL.and** **liberated-FEM.PL** are
'The people and the provinces are liberated.'
(Eitrem (1966: 63), cited in Johannessen (1998: 30))

(46) Qafar

[lubàk-**kee** **yangulì**] **yumbulle**
lion-ABS-**and** **hyena-NOM.MASC.SG** **were.seen-MASC.SG**
'A lion and a hyena were seen.' (Hayward and Corbett (1988: 271))

(47) Swahili

a. [ki-ti na **m-guu wa meza**] **u-mevunjika**
7-chair and **3-leg of table** **3-be broken**
'The chair and the leg of the table are broken.'

b. [m-guu wa meza na **ki-ti**] **ki-mevunjika**
3-leg of table and **7-chair** **7-be broken**
'The leg of the table and the chair are broken.'
(Bokamba (1985: 45), cited in Johannessen (1998: 33))

(48) Hopi

a. ['Itana niq **'ima totimho 'yam**] taatapiy **qöqya**
our father-SG and **these boy-PL** cottontail-PL-ACC **killed-PL.PL-ACC**
'Our father and these boys killed cottontails.'

b. ['ima totimho 'yam niq **'Itana**] taatapiy **qöya**
these boy-PL and **our father-SG** cottontail-PL-ACC **killed-SG.PL-ACC**
'These boys and our father killed cottontails.' (ibid.)

Probe V

(49) Ndebele
I-xhegu lesa-**lukazi** **si-za-si-nceda**
5/6SG-oldman CONJ**.7/8SG-oldwoman** **we-will-7/8SG-help**
'The old man and the old woman, we will help.' (cf. (34), Moosally (1999: 384))

5.1.4. Case

If Case is checked as a result of Agree (Chomsky (2000, 2001)), we predict that the element which enters into an agreement relation is Case-checked.

(50) a. [**She** [and him]] will drive to the movies.
(Schwarts (1985: 165), cited in Progovac (1998: 4))

b. [**He** [**and I**]] will be leaving. (van Gelderen (1997: 178))

c. [Both [him [and **I**]]] left early. (Zoerner (1995: 48))

5.2. Extraction

This subsection considers the phenomenon of Extraction. In symmetrical structures, both objects project and there is a parallelism between them. Therefore, we predict that it is impossible to operate on one of the objects.

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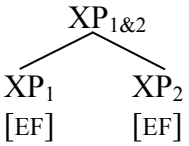


5.2.1. Extraction of Conjuncts

Since there is a parallelism between the objects, we predict that the extraction of one of them is banned.

Relative Clause

(52) a. *Look at the woman **who** I saw [a man] and [***t***].
b. *Look at the man **who** I saw [***t***] and [a woman]. (Sjoblom (1980: 20))

Wh-phrase Movement

(53) a. He will put the chair between [some table] and [some sofa].
b. ***What sofa** will he put the chair between [some table] and [***t***]?
c. ***What table** will he put the chair between [***t***] and [some sofa]?
(Ross (1967: 22))

A-Movement (Passive)

(54) a. ***Bill** was seen [John] and [***t***] by Mary.
b. ***John** was seen [***t***] and [Bill] by Mary. (Sjoblom (1980: 22))

5.2.2. Extraction out of Conjuncts

Since there is a parallelism between the objects, we predict that the extraction out of one of them is prohibited.

Relative Clause

(55) a. *The lute **which** [Henry plays ***t***] and [sings madrigals] is warped.
b. *The madrigals **which** [Henry plays the lute] and [sings ***t***] sound lousy.
(Ross (1967: 160))

5.2.3. Quantifier Raising (QR)

Since there is a parallelism between the objects, we expect that the Quantifier Raising from one of them is not accepted.

(56) **A (#different) student** [likes **every professor**] and [hates the dean].
(a > every, *every > a)
(Fox (2000: 51))

5.2.4. Across-the-Board Rule Application

Since there is a parallelism between the objects, we predict that the extraction from both of them is allowed.

Relative Clause

Parallel Gaps

(57) the man **who** [Bill saw ***t***] and [Mary talked to ***t***]. (Williams (1977: 419))

Asymmetric Gaps

(58) I know the man **who** [John likes ***t***] and [we hope ***t*** will win]. (Williams (1978: 34))

Asymmetric Adjacent Gaps

(59) Nancy Reagan was wearing a gown **that** [Galanos designs ***t***] and [***t*** cost over $5,000]. (Anderson (1983: 3))

Asymmetric Non-Adjacent Gaps

(60) Jackson is the candidate **who** [***t*** supported Reagan] and [the Democrats refused to endorse ***t***]. (ibid.: 4)

Asymmetric Non-Adjacent (embedded) Gaps

(61) Washington is the candidate **who** [John [voted for ***t***] and [hoped ***t*** would win]]. (ibid.)

Wh-phrase Movement

(62) **Who** should [Jane detest ***t***] and [Harry adore ***t***]? (Bošković and Franks (2000: 107))

Right-Node-Raising

(63) [Josh will donate ***t*** to the library], and [Maria will donate ***t*** to the museum], **each of these old novels**. (Sabbagh (2007: 354))

A-Movement

(64) a. **The boys** [will ***t*** write a book] and [***t*** be awarded a prize for it].
b. **The criminal** [will ***t*** be arrested] and [***t*** confess to the crime].
(Burton and Grimshaw (1992: 307))

(65) **John** [***t*** drove his car to his house] and [seemed ***t*** to be exhausted]. (Moltmann (1992: 10))

5.3. Subject-Aux Inversion

Since there is a parallelism between the objects, we predict that Subject-Aux Inversion of one of them is impossible.

(66) a. *[What has Bill seen] and [he has heard the bad news]?
b. *[Bill has seen the broken window] and [what has he heard]?
c. [What has Bill seen] and [what has he heard]?
d. [Who was at the party] and [what were they wearing]?

(Culicover and Jackendoff (1997: 211))

6. Asymmetrical Structures

This section considers the asymmetrical structures, in which the same categories merge and one of them projects.

6.1. The Internal Structures

(67)

6.1.1. The Collective Reading

Since there is no parallelism between objects in asymmetrical structures, each object does not have its own independent reading. If so, we predict that the whole structures are interpreted as the collective reading.

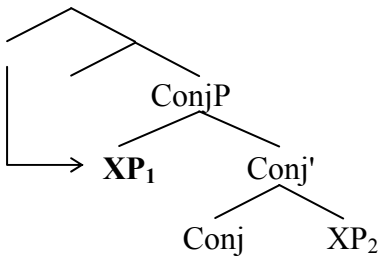
(68) [Maria] and [Peter] met in the park. (cf. (21), Progovac (1999b: 143))

Thus, asymmetrical structures have the collective reading.

6.1.2. Agreement

If the internal structure for asymmetrical structures is the one shown in (67), then we predict that the first object (XP_1) can enter into an agreement relation with the probe.

(69)



Probe T

(70) a. There **is** [**a cat** and a dog] in the bedroom.
b. There **is** [**a cat** and a dog] looking at each other.
(Aoun, Benmamoun, Sportiche (1999: 673))

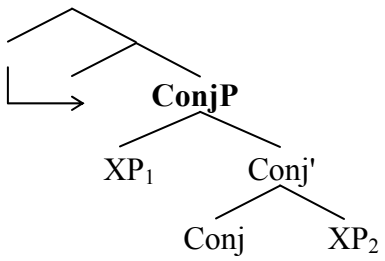
(71) Standard Arabic
xarajat [**hiya** wa marwaan] jamii'an
left.3F.SG [**she** and Marwaan] both
'She and Marwaan left together.'
(Harbert and Bahloul (1997), cited in Munn (1999: 647))

Probe C

(72) Tegelen Dutch
... **de-s** [**doow** en ich] ôs treff-e.
... **that-2P.SG** [**you$_{SG}$** and I]$_{1P.PL}$ each.other$_{1P.PL}$ meet-$_{PL}$
'... that you and I will meet.' (Koppen (2005: 40))

If the internal structure for asymmetrical structures is the one shown in (67), then we predict that the whole projected object can enter into an agreement relation with the probe.

(73)



Probe T

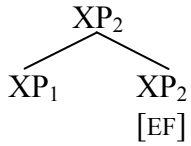
(74) Lebanese Arabic
Raaħo [Kariim **w** **Marwaan**] sawa.
left.PL [Kariim **and** **Marwaan**] together
'Kareem and Marwaan left together.'
(Aoun, Benmamoun, and Sportiche (1994: 211))

(75) Slovenian
[Krava **in njena teleta**] **so trčila** drug ob drugega
cow.FEM **and her calves.NEUT** **are collided.NEUT-PL** other into other
'A cow and her calves collided into each other.'
(Marušič, Nevins, and Saksida (2007: 11))

6.2. Extraction

This subsection considers the phenomenon of Extraction. In asymmetrical structures, only one of the objects projects as shown in (76) and there is no parallelism. Therefore, we predict that it is possible to extract an element included in the objects.

(76)



Relative Clause

(77) The screw [**which** I've got to [try] and [find ***t***]] holds the frammis to the myolator.
(Ross (1967: 170))

(78) a. I [went to the store] and [bought some whiskey].
b. This is the whiskey [**which** I [went to the store] and [bought ***t***]].
c. This is the store [**which** I [went to ***t***] and [bought the whiskey]].
(Grosu (1973: 91))

(79) a. John is looking forward to [going to the store] and [buying a nice bottle of whiskey].
b. **What** John is looking forward to [going to the store] and [buying ***t***] is a nice bottle of whiskey. (Grosu (1981: 54))

(80) This is the thief **that** [you just point out the loot] and [then we arrest ***t*** on the spot].
(Zhang (2006b: 202))

Wh-phrase Movement

(81) **How many counterexamples** can the Coordinate Structure Constraint [sustain ***t***] and [still be considered empirically correct]? (Goldsmith (1985: 135))

(82) a. **What kind of herbs** can you [eat ***t***] and [not get cancer]?[4]
b. **What forms of cancer** can you [eat herbs] and [not get ***t***]?
(Lakoff (1986: 154))

[4] Cormack and Smith (2005) argue that these sentences are unacceptable. However, there is a similar example in which it is possible to extract an element included in conjuncts.

(i) a. John ran to the shop and bought a paper.
b. **Which shop** did John run to ***t*** and buy a paper?
c. **What** did John run to the shop and buy ***t***? (Cormack and Smith (2005: 407))

Adverb-fronting

(83) a. **Swiftly** John will [run ***t***] and [end up falling down].
b. **Off** the boy [went ***t***] and [told his friends the news]. (Zhang (2006b: 202))

Topicalization

(84) a. **This advice** the committee [decided to follow ***t***] and proceeded to set up a new subcommittee].
b. **Kiss her**, I [didn't ***t***], and [will probably regret it]. (ibid.)

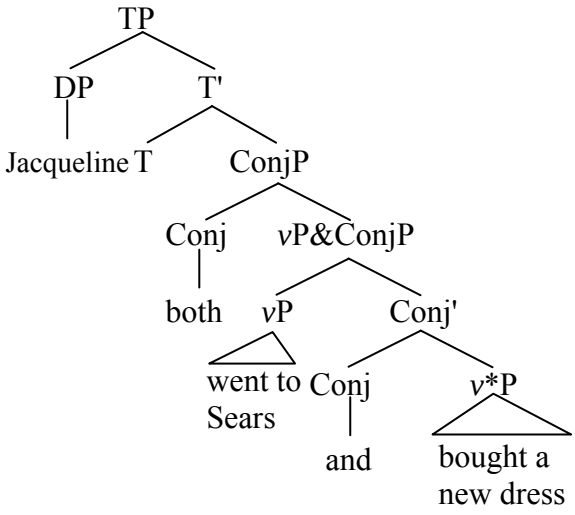
If these structures have the same structures as the ones for symmetrical structures in which both of the merged objects equally project, we predict that the sentences result in ungrammatical.

As discussed above, *both* occupies the position of the initial EF in symmetrical structures. If so, when *both* appears, it is impossible to extract an element from the objects in sentences we observed above.

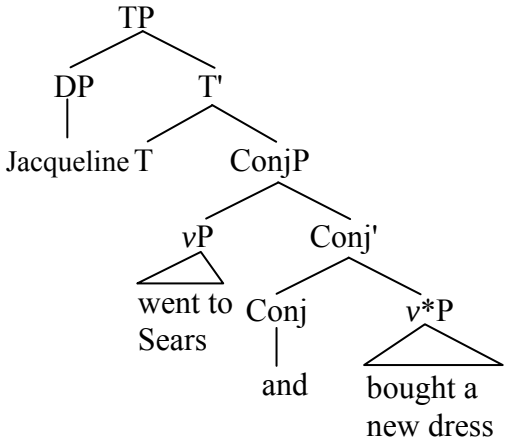
(85) a. This is the senator [**that**$_i$ [the Mafia pressured ***t***$_i$] and [the senate voted for health care reform].
b.* This is the senator [**that**$_i$ [**both** [the Mafia pressured ***t***$_i$] and [the senate voted for health care form]]. (Culicover and Jackendoff (1997: 206))

(86) a. Jacqueline (both) [went to Sears] and [bought a new dress].
b. the dress **which**$_i$ Jacqueline (***both**) [went to Sears] and [bought ***t***$_i$].
(Postal (1993: 58))

(87) a. Symmetrical Structure for (86a)



b. Asymmetrical Structure for (86a)



Moreover, when the sentence has the distributive reading, it constitutes a symmetrical structure. Therefore, when the event is deliberately separated by the adverb phrases, we predict that the sentence has the symmetrical structure and it is impossible to extract an element from the objects.

(88) a. **What** did you [go to the store] and [buy ***t***]?
b. ***What** did you [go to the store in the morning] and [buy ***t*** in the afternoon]?
(Kaneko and Endo (2001: 194))

(89) the wine and beer [**which** Jack and Bob will [go to the store] and [buy ***t***] (*respectively)]. (Postal (1993: 59))

6.3. Subject-Aux Inversion

Since there is no parallelism between the objects, we predict that Subject-Aux Inversion of one of them is possible.

(90) a. [Who does Big Louie visit] and [the whole gang goes nuts]?
b. [What does he mention] and [she kicks him out of her office]?
c. [Big Louie sees this mess] and [who's going to be in trouble]?
d. [You so much as mention the minimalist Program] and [how loud does she scream]? (Culicover and Jackendoff (1997: 210))

7. Conclusion

The goal of this presentation has been to reveal the nature of coordination. We have proposed that conjunction is the realization of Edge Feature (EF). Furthermore, following Chomsky (2005), we have assumed that one or more objects can project. Then, we have two ways of the labeling algorithms. One consists of the intersection/union set of two objects (Symmetrical Structures). The other is the projection of one of two objects (Asymmetrical Structures). As a consequence of the present proposal and labeling algorithms, we have predicted (i) that conjunction overtly reflects the properties of EF and (ii) that symmetrical structures and asymmetrical structures behave differently. We have argued that these predictions are borne out by various kinds of phenomena.

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