Contrastive ‘but’ involves gapping not in Farsi but in English

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1 Introduction

- The phenomenon of gapping has long interested researchers in the generative tradition (starting with Ross 1967, 1970).
- The core cases involve coordination structures with and and or:
  (1) Sarah left, and Betsy (left) too. (Johnson 2004:3)
  (2) Some ate natto and others (ate) rice. (Johnson 2004:1)
- More recently, gapping has been argued also to derive the fragments in correlative coordinations, e.g. either... or (Schwarz 1999), and phrasal comparatives (Lechner 2004).
- In this talk, I explore the extent to which gapping is active in structures with contrastive but in English (Aucorbe and Ducrot 1977, Horn 2001:402–413).
  (3) He ate not three pizzas but (*he ate) four pizzas.
  (4) He didn’t eat three pizzas but (*he ate) four pizzas.

- It is not immediately obvious that it does, since, unlike with and or or, the fragment following but cannot be expanded into a full clause (while maintaining a contrastive interpretation).
- This basic idea is not new (see McCawley 1991, 1998:612–622, Vicente, to appear), but I make the novel argument that only in the anchored form (4) is the fragment following but produced by gapping. In the basic form, the remnant is just the second half of a small coordination structure.
- I do this using new data from English, as well as Farsi (the dialect of Persian spoken in Iran), which does not involve gapping at all in contrastive ‘but’ structures with na... balke.
- This analysis provides an explanation for why contrastive but should involve gapping in the first place. Since gapping is an operation that applies to coordination structures, it applies to structures with contrastive but, which is a correlative coordinator.

2 (At least) two buts

  (5) According to the Oxford English Dictionary:
  23. As adversative conjunction, appending a statement contrary to, or incompatible with, one that is negated: On the contrary. = Ger. sondern.
  24. Appending a statement which is not contrary to, but is not fully consonant with, or is contrasted with, that already made: Nevertheless, yet, however. = Ger. aber.
- The denial-of-expectation function of but can controversially be expanded into a number of additional types, including: SEMANTIC OPPOSITION and CONCESSION, among others (Lakoff 1971, Bellert 1972, Abraham 1979, Blakemore 1989, Foonen 1991, Srabon 2003, Unbauen 2005).
- The difference between the contrastive and denial-of-expectations functions of but is not just semantic but syntactic as well: a denial-of-expectation interpretation is only available when the second constituent is a predicate or a full clause.
  (6) a. Shaq is huge but he’s agile.
     b. Shaq is huge but agile.
  (7) * Shaq eats meat but tofo.
     Intended: ‘Because Shaq eats meat, it’s expected that he does not eat tofu. He eats both.’
- In contrast, contrastive but, which is always accompanied by not, allows remnants that are DPs or predicates, but not main clauses.
  (8) a. The coffee isn’t HOT but SCALDING.
     b. He ate not THREE pizzas but FOUR pizzas.
  (9) a. * The coffee isn’t HOT but it’s SCALDING.
     Intended: ‘The coffee is not hot; instead, it is scalding.’
     b. * He ate not THREE pizzas but he ate FOUR pizzas.
     Intended: ‘He did not eat three pizzas; instead, he ate four pizzas.’
- Contrastive but moreover has a special prosodic structure: both the fragment following but and the corresponding constituent in the preceding full clause bear falling pitch accents (H*).

3 Basics of English contrastive but

  1. BASIC FORM: negation immediately precedes the first focussed constituent (the CORRELATE)
     (10) He ate not THREE pizzas but (*he ate) FOUR pizzas.  
     2. ANCHORED FORM: negation (optionally cliticized) appears in canonical sentential position
     (11) He didn’t eat THREE pizzas but (*the ate) FOUR pizzas.
• As Horn (2001:408) observes, in both forms, the second focussed constituent (the REMNANT) must be realized as a fragment.

• The null hypothesis is the most concrete one: the remnant in (10–11) is the second DP of a subcidual coordination structure. (I assume Munn’s (1993) asymmetric analysis of coordination.)

(12)

(13)

• More abstractly, McCawley (1991, 1998:612–622) and Vicente (to appear) propose that the remnant is derived from a clausal coordination structure to which gapping has applied.

4 The proposal

• I analyze contrastive not…but as a correlative coordinator, which like the canonical coordinator and can combine any two constituents of the same type (Huddleston and Pullum 2002:1291).

• Moreover, since it is a correlative coordinator, the position of not can be used to tell the size of the constituents being coordinated, just as with either…or or both…and (Schwarz 1999, Huddleston and Pullum 2002:1307).

(14) He ate not THREE pizzas but FOUR pizzas. basic form

(15)

• In its basic form, contrastive but can coordinate essentially any type of constituent, with one exception: main clauses.

(16) Born in Romania (and thus sharing part of Leonard’s eastern European background), transferred by his parents to Canada in the harsh years of the early century, he represents, perhaps more than any other, not the genteel ‘English’ background common to many of his fellow-workers, but a rough, raw Canadian view that is intensely patriotic, proletarian, passionate and pure. (A0P 945) DP

(17) Not one but two former homes secretaries have blamed television and films for what is happening in society. (KSC 880) D

(18) Shortly after the point at which the recital ends, sand was to cover some more helicopters—those sent by President Carter to liberate the American hostages seized in Teheran, where Kapuscinski catches a glimpse not of them but of their place of confinement (A05 775). PP

(19) On page 300, for instance, there is a translation of an Italian book title that could only have been made by somebody under the not uncommon but incorrect impression that Italian is a transparently simple language, understandable without effort.1 AP

(20) His decision to marry and give up his army career is made not easily but painfully, and it is made principally from his sense of duty to the woman.2 AdvP

(21) I have also campaigned for the Government to give AIDS greater recognition, not as a disease affecting specific sectors of the community, but as a social problem for which there must be adequate welfare provision. (A00 202) adjunct

(22) So if you are not a UK taxpayer you are advised not to enter into Deeds of Covenant, but to make your regular charitable payments by simple Banker’s Order without any covenant. (A01 286) embedded TP

(23) But this rule is not so simple as at first sight it looks, for it means, not that priority is gained by registration, but that it is lost through failure to register. (ABP 1137) embedded CP

• The existence of this gap in the paradigm is significant, and it corresponds, I argue, to the anchored form.

• The anchored form involves the coordination of two main clauses, the second of which is obligatorily reduced to a fragment by gapping.

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(24) He didn’t eat THREE pizzas but FOUR pizzas.

(28) majid na farānsavi balke ālmāni midune.
Majid NEG French but German know.3SG
‘Majid knows not French, but German.’

- In the basic form, a wide variety of categories can be combined:

(29) va garna, na shomā, balke hameye dustān midmand in rivyu az sāte DigiKala bud.
and if not NEG you but all friend.PL know.3PL this review from site was
‘And if not, not you but everybody knows that this review is from the DigiKala site.’

(30) in rūzhā kamar jā-yi-rā peidā mikomi ke dar qadam zadān-hā-yat barge
this days less place-IND-OBJ fīnd do.2SG that in step hitting-PL-2SG leaf
zard-i-rā zire pā khord na-kou; barge zard-i ke be ruze sabri-ash,
yellow-IND-OBJ below foot piece NEG-do.2SG leaf yellow-IND that to day greenness-3SG
tohe darvish bud va na zire pā balke bāleye sare ādamiyān jā dāīsh.
 rarity dervish was and NEG under foot but above head human.PL place had.3SG
‘You find fewer places these days where you can go walking without crushing yellow leaves
underfoot, yellow leaves which in their green days were as rare as dervishes and had a place not
under foot but above humans’ heads.’

(31) tasvīr ke az brāme az do ruze pish dar resānehā zāhēr mishavand, digar
image that from Burma from two day past in media appearance become.3PL no.longer
na zibā, balke saхt qamangiz hastand. NEG
beautiful but hard sad are.3PL
‘The images that have been appearing in the media for the past two days no longer beautiful
but terribly sad.’

(32) bā ‘Search’ dar sāte yād shode mīnbānd ke na yeḵ, balke se vidīd az in
with in site memory become see.3PL that NEG one but three video from this
quāzye movjud hast.
case available is
‘With “Search”, it can be seen in the archived sites that not one but three videos from this case
are available.’

(33) va ba’d in negme solemān-rā ke na gāghān balke hamīshē ‘bar u daste ahramen
and after that stone Solomon-OBJ that NEG sometimes or always on it hand Ahraman
bāshād’ be huch na-setānīd?
is to nothing NEG-take.2PL
‘And then, do you take that stone of Solomon’s for nothing that is not sometimes but always on
Ahraman’s hand?’

5 Farsi balke as a correlative coordinator

- Many languages have a distinct lexical item for the contrastive function of ‘but’ in English: e.g. German
sondern (Pusch 1975, Abraham 1979, Lang 1984:238–262), Hebrew ela (Dascal and Kaitriel 1977), Spanish
sino (Schwenter 2000, Vicente, to appear).

- Farsi (the variety of Persian spoken in Iran) has balke for the contrastive function of ‘but’: (as opposed to
the umma and vall).

- Like English contrastive not...but, it has a basic form, in which negation occurs as a free morpheme, na,
immediately preceding the correlate:

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va mā hamish-e moshāţe in hastim ke az jologīri az māvāde mohkudder na az
and we always eager this are.1PL that from control from substance illegal NEG from
nazare terānīt balke az nazare mo'âleje va komak be mardom towse'e peidā
opinion transit but from opinion treatment and aid to people expansion find
bokonim.
do.1PL
‘And we have always been eager to expand the control of illegal drugs, not with respect to their
transit, but with respect to medical treatment and humanitarian aid.’
mitavānam beguyam bachehā-yi ke akun hastand va barmīgarand va negāl mikonand
can.1SG say.1SG child.PL-IND that today are.3PL and return.3PL and look do.3PL
va shohadā-rā mibinand hes mikonand na ke māndand balke 'aqib māndand va
and martyrs-OBJ see.PL feeling do.PL NEG that stayed.3PL but behind stayed.3PL and
barande na-shodand.
winner NEG-became.3PL
‘I can say that the children today who return and look and see the martyrs feel not that they have
stayed but that they have stayed behind and not won.’
• There is also an anchored form, in which negation occurs bound on the verb and is variably realized as na-, ne-, or n-:

(36) a. majid farānsavi ne-midune balke ālmānī midune.
Majid French NEG-know.3SG but German know.3SG
‘Majid doesn’t know French, but German.’
b. hameye moshkelaţe federalisunyāh māl-i nist balke bishatar
all problem.PL federation.PL property-ADJ NEG.is but more
modiriyyat-i va barmānehriżi ast va bāyestī be ānhā towje shod.
administration-ADJ and planning is and must to those care become
‘All of the federations’ problems are not fiscal; they are more administrative and logistical,
and they must be taken care of.’

• Unlike in English, however, the second coordinate must be realized as a full clause; gapping is not allowed:

(37) * majid farānsavi ne-midune balke ālmānī.
Majid French NEG-know.3SG but German
Intended: ‘Majid doesn’t know French, but German.’

• Note that Farsi does allow gapping generally, e.g. coordination structures with va ‘and’:

(38) majid farānsavi midune va rāmin ham.
Majid French know.3SG and Ramin also
‘Majid knows French, and Ramin too.’
(39) majid farānsavi midune va rāmin ālmānī.
Majid French know.3SG and Ramin German
‘Majid knows French, and Ramin German.’

⇒ Farsi transparently shows the variable size of the coordination structures in the basic and anchored forms.
⇒ English contrastive but can be analyzed in the same way as Farsi balke with the additional application of gapping in the anchored form.

6 Evidence for gapping in the English anchored form
• Three pieces of evidence show that the fragment in the anchored form—but not the basic form—is derived through gapping.
  • Gapping allows multiple remnants
    – With the anchored form, it is possible to have more than one fragment following but, as it is possible
    with gapping in general.
    (40) A: * Sally took her son to the park on Sunday.
        B: Sally didn’t take her son to the park on Sunday, but her daughter on Saturday.
  anchored form
    – In contrast, in the basic form, only a single remnant is permitted—which is what we expect if its
    structure involves the coordination of subclausal constituents.
    (41) A: * Sally took her son to the park on Sunday.
        B: Sally took her son to the park on Sunday, but her daughter on Saturday.
  basic form
    • Finite main verb gapping is restricted with indirect objects
      – When the finite main verb and direct object are gapped, the indirect object must also go missing,
        regardless of whether it is a dative PP or DP (Hankamer 1979:106–108).
      (42) * Harry gave a cadillac to Seymour, and Albert to Thomas.
      (43) * Harry gave Seymour a cadillac, and Albert Thomas.
        (Hankamer 1979:108)
    – At least for the double object construction, there seems to be a similar restriction on the dative
    argument in the anchored form:
      (44) a. * Harry didn’t give a cadillac to Seymour, but to Thomas.
          b. * Harry didn’t give Seymour a cadillac, but Thomas.
      anchored form
      – The basic form, which I have argued does not involve gapping, does not show the same effect:
      (45) a. Harry gave a cadillac not to Seymour but to Thomas.
          b. Harry gave not Seymour but Thomas a cadillac.
      basic form
  • Gapping obeys islands
    – Gapping obeys various island constraints (Hankamer 1979:20–21, Neiţ 1979:23–24): e.g. the Coordinate
      Structure Constraint in (46), the Sentential Subject Constraint in (47), the Complex NP Constraint
      in (48), and the Adjunct Constraint in (49).
(46) * Alfonse cooked [the rice and the beans], and Harry the potatoes. (=… and Harry cooked [the rice and the potatoes].)

(47) * [That Alfonse ate the rice] is fantastic, and Harry the beans. (=… and [that Harry ate the beans] is fantastic.)

(48) * Alfonse discussed [the question of which rice we would eat], and Harry (of) which beans. (=… and Harry discussed [the question of which beans we would eat].)

(49) * Jasper choked [when he saw Sally] and Maria John. (=… and Maria choked [when she saw John].)

The remnant in the anchored form shows similar island effects (Vicente to appear, 14–17) shows this independently for the Adjunct and Complex NP Constraints:

(50) a. * Alfonse didn’t cook the rice and the beans, but the potatoes. (=… but *Alfonse cooked the rice and the potatoes.)*

b. * That Alfonse ate the rice isn’t fantastic, but the beans. (=… but *that Alfonse ate the beans* is fantastic.)*

c. * Alfonse didn’t smash the vase that Sonya had brought from China but from Japan. (=… but *Alfonse smashed the vase that Sonya had brought from Japan*.)

d. * Jasper didn’t choke when he saw Sally, but John. (=… but *Jasper choked when he saw Sally*.)

In the basic form, which by hypothesis does not involve gapping at all, there are no island effects.

(51) a. Alfonse cooked the rice and not the beans but the potatoes.

b. That Alfonse ate not the rice but the beans is fantastic.

c. Alfonse smashed the vase that Sonya had brought not from China but from Japan.

d. Jasper choked when he saw not Sally but John.

7 Conclusion

* I have argued that contrastive not… but in English, and its Farsi correlate na… balke, are correlative coordinators, and that the English anchored form is produced by gapping a main clause coordination structure.

* By saying that it is a coordinator, we can explain why reduction takes place in sentences with contrastive but: gapping only applies to coordinate structures.

* It remains a mystery, however, why gapping is obligatory in English but is completely ruled out in Farsi.

* By identifying another member of the class of expressions that license gapping, we are one step closer to understanding why gapping is so intimately tied up with coordination in the first place.

Data and abbreviations

I have tried wherever possible to use naturally-occurring examples. These come either from the Internet, in which case I always provide the source URL, or, for English data, from the British National Corpus (version 2) (distributed by Oxford University Computing Services on behalf of the BNC Consortium; all rights in the texts cited are reserved). Examples from this latter source are annotated with a three-character code identifying the text of origin followed by the line number within that text. English judgments are my own, and Farsi judgments come from three native speakers residing in Tehran, Iran and the United States. The abbreviations I use are: 1, first person; 2, second person; 3, third person; AD1, adjectival suffix; IND, indefinite; NEG, negation; OBJ, object; PL, plural; SG, singular.

Appendix A: On edge coordinations

Vicente (to appear, 18–21) suggests that basic form sentences like (52) in which the contrastive but phrase occurs sentence-initially are not small coordination structures but rather ‘adjacent initial edge coordinations’ in the sense of Bianchi and Zamparelli (2004).

(52) Not a mathematician but a physicist discovered the neutron. (Vicente, to appear, 18)

For Bianchi and Zamparelli, the sentence in (52) would be derived as in (53). The correlate and remnant move to Spec-Focus/JP before their TPs undergo across-the-board movement to Spec-G(roud)P. The coordinate structure subsequently raises to the specifier of some miscellaneous projection (here, XP).11

(53)

This analysis cannot be generalized to all basic form sentences, since the contrastive but phrase does not always occur at the left edge, as is necessary under Bianchi and Zamparelli’s analysis:

(54) On page 300, for instance, there is a translation of an Italian book title that could only have been made by somebody under the not uncommon but incorrect impression that Italian is a transparently simple language, understandable without effort.12

Appendix B: A compositional semantics

Pace Vicente (to appear, 7f.), it is almost trivial to give a semantics for contrastive not… but that allows it to combine two nonclausal (i.e. nonpropositional) arguments. We need only define cross-categorical lexical entries for not and but (Partee and Rooth 1983, Keenan and Faltz 1985), as in (55) and (56) respectively, where σ is a variable over well-formed types.

(55) \( \text{not } \alpha \rightarrow \neg \alpha \) iff \( \alpha \) is of type \( t \)

(56) \( \alpha \text{ but } \beta \rightarrow \alpha \land \beta \) iff \( \alpha \) and \( \beta \) are of type \( t \)

Horn (2001:402–413), following earlier authors, talks about contrastive not… but as being metalinguistic, with the negation serving to reject a previous utterance as inappropriate (on whatever grounds). But McCawley (1991)

11This is actually one of two possible structures they propose. The other involves ‘backwards’ ellipsis, which is generally ruled out in coordinate structures by the Backwards Anaphora Constraint (Lambacher 1969; 171).

argues convincingly that this is not always the case; the negation often has its ordinary truth-functional meaning. I take the truth-functional meaning to be basic and assume that the metalinguistic usage can be derived from it, as in the work of van der Sandt (1991).

Assuming that DPs have denotations available in the domain of generalized quantifiers (⟨x,z⟩), and that generalized quantifiers in object position raise to avoid a type mismatch, the parse tree in (58) shows how the meaning of a basic form sentence like (57) is composed.

(57) Max ate not THREE pizzas but FOUR pizzas.

(58)

\[ \lambda e[|\text{three}pizza(\langle e, x, z \rangle) | \max \langle e, x, z \rangle | \lambda f(|\text{four}pizza(\langle f, x, z \rangle) | \max \langle f, x, z \rangle | e)] \]

\[ \lambda e[|\text{three}pizza(\langle e, x, z \rangle) | \lambda f(|\text{four}pizza(\langle f, x, z \rangle) | \max \langle f, x, z \rangle | e)] \]

\[ \lambda e[|\text{three}pizza(\langle e, x, z \rangle) | \lambda f(|\text{four}pizza(\langle f, x, z \rangle) | \max \langle f, x, z \rangle | e)] \]


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