Conjunction as a Case Feature-Checker
Author(s): Ed Zoerner
Proceedings of the Twenty-First Annual Meeting of the Berkeley Linguistics Society: General Session and Parasession on Historical Issues in Sociolinguistics/Social Issues in Historical Linguistics (1995), pp. 351-362

CONJUNCTION AS A CASE FEATURE-CHECKER

Ed Zoerner
University of California, Irvine

1.0 The Puzzles

The facts of NP-coordinations pose at least four puzzles needing explanation. This paper identifies these puzzles, and demonstrates that all of them have a related solution.

First, an asymmetry exists between NP-coordination and non-NP-coordination regarding the presence of an overt conjunction. This asymmetry manifests itself in two ways. For one thing, a number of languages require an overt coordinator in an NP-coordination although they allow or even require parataxis in coordinations of other phrases. Chinese gives an example of this:

1. a. [Robin he Kim] mai-le yi-ben shu
and buy-ASP one-CL book
'Robin and Kim bought a book'
b. *Robin, Kim mai-le yi-ben shu
c. Robin [chang ge, tiao wo]
sing song dance dance
'Robin sings a song and dances a dance'

This phenomenon appears frequently, and in different language families; some languages which pattern with Chinese in this regard include:

2. Barasano: kede for NPs, parataxis elsewhere
Chemehuevi: wai for NPs, parataxis elsewhere
Tera: nde for NPs, parataxis elsewhere

No language, however, requires an overt conjunction in non-NP-coordination yet allows paratactic NP-coordination. An interesting implicational universal holds: if a language has an overt coordinator for non-NP-conjunction, it will have one for NP-conjunction. Also, even in some languages that always require syndetic coordinations, a distinction exists; one lexical item conjoins NPs while another conjoins all other phrases. The language of Nguna offers one such example; go conjoins NPs and poo conjoins other phrases such as VP:

3. Nguna (Shütz (1969: 49))
a. e pei na-vinaga go/*poo suu-goro
it be food and clothing
'It was food and clothing'

b. a go vano poo/*go tape na-peta seara
I INT go and get yams some
'I will go and get some yams'

Other languages with conjunctions patterning in such a fashion include:

4. Japanese: to, mo, ya for NPs; -te for APs and VPs
Somali: iyo for NPs, o for all other phrases
West Futuna-Aniwa: ma for NPs, u for all others

However, no language requires the use of a special coordinator to conjoin any phrase other than NP without requiring a distinct NP-conjunction as well; no language, for example, has one conjunction to conjoin APs, PPs and NPs but another for VP. NP stands apart from all other phrases; call this the asymmetry puzzle.

Second, as Emonds (1986) among others points out, English permits nonstandard Case to surface in coordinations but not elsewhere:

5. a. *Me left
b. Robin and me left
c. Me and Robin left

Native English speakers produce forms along the lines of (5b) and (5c) freely despite prescriptive injunctions to the contrary; this too requires explanation. Most languages do not permit such flexibility of Case-realization:

6. Dutch
a. Ik heb een klok
1S-NOM have a clock
'I have a clock'
b. *Me heb een klok
1S-ACC have a clock
c. *Robin en me hebben een klok
d. *Me en Robin hebben een klok

Why English permits nonstandard Case while most languages do not needs an account; call this the nonstandard puzzle.

The third puzzle consists of the fact that all nonfinal conjuncts must bear identical Case. In English, this holds of both standard and nonstandard Case; the various Cases may not 'mix and match':

7. a. He, she, they and Robin (all) left
   b. Him, her, them and Robin left
   c. *He, she, them and Robin left
   d. *He, her, they and Robin left
   e. *Him, she, they and Robin left
   f. *He, her, them and Robin left
   g. *Him, her, they and Robin left
   h. *Him, she, them and Robin left

Call this the identity puzzle; to date no theoretical account explains why multiple occurrences of nonstandard Case as in (7b) should improve on single occurrences of same as in (7c).

The fourth puzzle stems from the third. In English, the final conjunct stands exempt from the aforementioned requirement on Case identity. The final conjunct may in fact surface with differing Case, as in:

8. a. He, she, they and me all left
   b. ?Him, her, them and I all left
   c. Robin saw he, she, they and me yesterday
   d. ?Robin saw him, her, them and I yesterday

(8a) sounds perfectly natural, although the final conjunct bears Accusative Case (ACC) rather than Nominative Case (NOM) as do the other conjuncts. (6b), which contrasts a final NOM with non-final ACC, sounds less natural (probably due to the status of ACC in English as 'default' Case) but still improves on the bad forms in (7). (8c, d) show that such a Case contrast may occur in object positions as well. Call this the final-conjunct puzzle; the theory needs to account for the peculiar Case treatment English gives its final conjuncts.

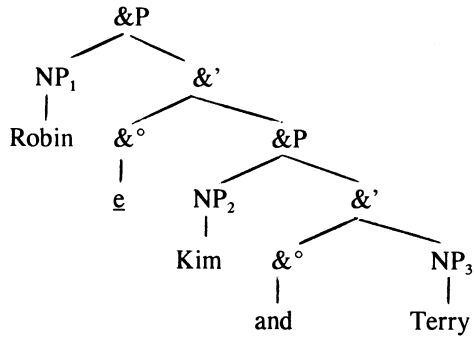
This paper proposes that a single explanation answers all four of these puzzles. Specifically, given a representation of coordination as a set of syntactic shells in which a conjunction assigns Case to its complement, and checks Case features of nonfinal conjuncts at LF, all the data above fall out. To reach this argument, this work first motivates a new structural representation of polytermed coordinations, and then shows how it follows that under this representation a conjunction must assign Case. It continues by developing the notion of conjunction as a Case feature-checking element, and then demonstrates that these ideas resolve each of the puzzles in turn.

2.0 Representing Coordinations

This work accepts the view as in Munn (1992) that a coordinating conjunction (call it &°; English 'and' and 'or' qualify) heads its own functional phrase (&P). It digresses from such previous work, however, in the way in shows polytermed coordinations; it forwards the claim that a single base-

generated &° can project any number of &P-shells to accommodate any number of conjuncts; a coordination with *n* terms will consist of *n-1* &P nodes. For example, a three termed English coordination of NPs appears as:

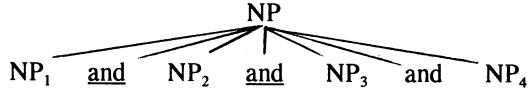
9.



This structure draws its inspiration from the VP-shell analysis of Larson (1988, 1990). All &° positions save the lowest remain underlyingly empty at PF. The base-generated (generally lexical) &° undergoes a Form-Chain operation at LF, and in so doing coordinates all conjuncts within its checking domain; note that each &° position stands in a head-spec relation with a nonfinal conjunct.

Adopting this structure confers several advantages. First, the structure of (9) directly produces the correct PF word order of conjuncts and conjunction; no small matter. A standard view of conjunction holds that a base-generated &° appears between each conjunct; this requires positing an unmotivated reduction rule, which affects the underlined terms below:

10.



On the other hand, the &P-shell structure, with its single base-generated lexical &°, arrives at the correct result without appeal to such reduction. Regardless of the number of conjuncts, the &° will always precede the final conjunct.[1]

Furthermore, the &P-shells establish a structural hierarchy amongst conjuncts, which correctly depicts binding asymmetries, as noticed for example by Munn (1992: 20):

11. 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.

These binding facts hold regardless of the number of conjuncts; this falls

out directly given the hierarchy of the &P-shell analysis. Such a hierarchy also explains the fact noted in McCloskey (1986) that Irish allows pro to enter a coordination only when it stands as the first conjunct:

12. a. Bhíos [$_{\&P}$ pro-féin agus Eoghan] i láthair
be-PT EMPH and Owen present
'Owen and I were present'
b. *Bhíos [$_{\&P}$ Eoghan agus pro-féin] i láthair

In (12a), the verb governs the first conjunct in [Spec, &P] and hence licenses the pro with its agreement features. Because a governing head &° intervenes between the verb and pro in (12b), such licensing cannot take place.

More central to solving the puzzles, however, the &P-shell analysis crucially represents a structural distinction between the final conjunct and all nonfinal conjuncts. The former occupies [Comp, &°], while the latter all occupy a [Spec, &P] position within the &P-shells. This immediately leads to the prediction that a final conjunct may behave differently from a nonfinal one by virtue of its unique structural position. Before investigating this claim regarding Case, note that [Comp, &°] does in fact hold some exclusive properties. For example, an echo wh-phrase may only appear as a final conjunct:

13. a. Robin sold [$_{\&P}$ pens, pencils and what]?
b. *Robin sold [$_{\&P}$ what, pens and pencils]?
c. *Robin sold [$_{\&P}$ pens, what and pencils]?

Also, notice that an 'etcetera'-type phrase whose categorial status differs from other conjuncts may only surface as a final conjunct:

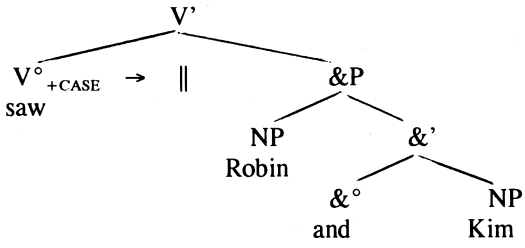
14. a. Robin [$_{\&P}$[$_{V°}$ runs], [$_{V°}$ jumps] and [$_{NP}$ stuff like that]]
b. *Robin runs, stuff like that, and jumps
c. *Robin stuff like that, runs and jumps

The ensuing attempt to solve the Case puzzles will take advantage of this empirically justified asymmetry between [Comp, &°] and [Spec, &P] that the &P-shell analysis provides.

3.0 Coordinations and Case

Once one grants that &° heads its own category, it follows that &° can assign Case. Consider for example the following partial diagram of a sentence with a coordinated NP in a direct object:

15.



Assume that all Case-marking takes place within VP, and that subsequent raising to AgrP satisfies checking requirements only. In (15), the verb cannot directly assign Case to an NP because of the intervening functional &P node. Nor can the verb merely assign Case to the &P node itself. For one thing, a functional &P simply does not equal an NP for purposes of bearing Case; and in any event every NP in the coordination would still lack Case-marking, in direct violation of the Case Filter.

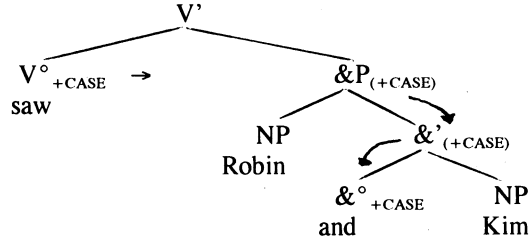
Nor does the &° itself bear an independent lexical specification to assign Case. The following demonstrates this:

16. *I tried [$_{\&P}$ Robin and Kim] to leave early

Here, the subject of the embedded clause stands in a Caseless position; the presence of the &° does not salvage the construction. The &° therefore does not assign Case on its own.

Rather, to satisfy the Case Filter, the V° must percolate the ability to assign Case through the &P and &' nodes to the lexical &°. The following diagram depicts this:

17.



Note in passing another advantage of the &P-shell analysis over a flat representation of coordination as in (10); the former but not the latter can show such percolation under a standard head-to-head relation. Crucially, in the English form in (17) it does not necessarily transmit any particular Case to the &°, but empowers it to assign Case. More on this in Section 5.2. The &° so appointed by a verb stands in an appropriate structural relation for NP-Case-marking to

satisfy Case Filter requirements.

Here the importance of the distinction between [Comp, &°] and [Spec, &P] becomes apparent; this work claims that a Case-empowered &° directly assigns Case only to its complement, but not to any NP in a [Spec, &P] position. Just as &° licenses a wh-phrase or 'etcetera' phrase only under a head-complement relation, &°-Case-assignment takes place under this structural relationship. Nonfinal conjuncts, which stand in [SPEC, &P], receive no direct Case-marking from the &°.[2] Nonfinal conjuncts may surface with any Case on their own, without direct Case-marking; the following section discusses the LF conditions that delimit the grammaticality of such Case constructions.

4.0 &° and Feature-checking

Recall the earlier claim that an &° term raises at LF to the highest &° position to conjoin all nonfinal conjuncts through a head-spec relation; such movement of course leaves behind traces. The following depiction of a four-termed NP coordination at LF in English illustrates this:

18. $[_{\&P}$ Robin $[_{\&'}$ and$_i$ $[_{\&P}$ Kim $[_{\&'}$ t_i $[_{\&P}$ Terry $[_{\&'}$ t_i Pat]]]]]]

In the terminology of Chomsky (1993: 12), the [Spec, &P] positions together form the checking domain of the lexical &° head (while the lowest [Comp, &°] constitutes the complement domain). As noted, the Form-chain movement of an &° as shown above brings each member within the checking domain into a head-spec relation with the &° itself.

Chomsky (1993) discusses instances in which a verb raises to the head AgrP for purposes of checking off agreement features of elements within the checking domain formed by such movement. The spirit of this idea applies straightforwardly to coordinations as represented here; conjuncts, which lie in the checking domain of &°, enter into a coordination licitly by virtue of an &° head checking their features successfully at LF. Because each member of an &°-chain in fact manifests the same single base-generated head, it follows naturally that each &° position will check off identical features. This means that in grammatical forms, all elements in an &°'s checking domain will share the same features.

Within the checking domain of an &°, any conjunct that bears an inappropriate feature causes the form to crash. As a simple example, consider the feature [±N] in an NP-coordination:

19. *[Robin, in, Kim and Terry left]

The ungrammaticality of the above now has a primarily syntactic rather than purely semantic explanation; the P° 'in' lacks the [+N] feature that the &° must check off at LF.

This notion of feature-checking applies directly to Case-realization as well. Consider a Case-marked NP as having a [+Case] feature, and one lacking Case as [-Case] (or, alternatively, as lacking such a feature altogether). An &° that undergoes Form-chain will therefore check this [Case] feature of all nonfinal conjuncts just as it checks features such as [±N].

5.0 Solving the Puzzles

To sum up the key points thus far: an &° head directly assigns Case to a (final) conjunct NP within its complement domain, and at LF checks off features of all nonfinal conjuncts, which lie within its checking domain. This established, all four puzzles have related explanations.

5.1 The Asymmetry Puzzle

The asymmetry puzzle calls attention to the fact that NPs have a special status regarding coordination; NP-conjunction generally requires syndetic rather than paratactic coordination, and very often a language will have a special lexical item expressly for such a purpose. This now has a natural explanation given the fact that an &° (rather than just a V°) bears the responsibility of assigning Case and checking Case. Under the natural assumption that overt lexical items inherently serve as Case-assigners better than phonetically null terms do, it follows that many languages will eschew parataxis in NP-coordinations.[3] It also follows under similar reasoning that a language may have one particular &° for Case-assignment but another for all other coordinations, which do not involve Case.

5.2 The Nonstandard Puzzle

In a sense, the nonstandard puzzle has two parts, since nonstandard Case can surface in either a final or nonfinal conjunct; recall:

20. a. [Robin and me] left
    b. [Me and Robin] left

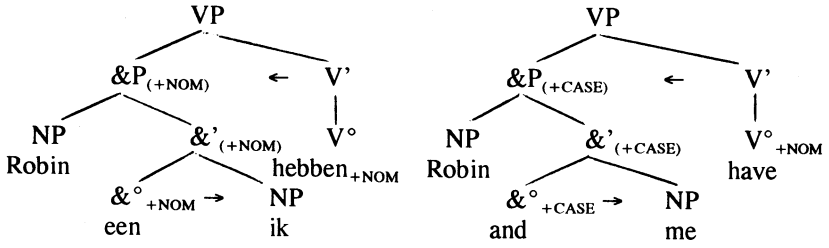
A verb percolates Case-assigning ability to an &° standing in an appropriate head-to-head relation. Whether or not the verb in so doing also transmits a particular Case becomes an important point. Should the verb not dictate a particular Case to the &°, the possibility for nonstandard Case realizations arises. The following necessary parameter speaks to part of the nonstandard puzzle:

21. A language's &° does/does not filter out the Case of a V°.

This parameter conforms to Minimalist principles in that it places the onus of describing differences amongst languages on the functional head &°. Dutch

and English choose opposite selections of the parameter; the following diagram may help clarify:

22. a. Dutch b. English



Most languages follow Dutch in selecting the 'does' version of (21). This means that the &° will receive whatever standard Case the verb normally assigns; &°s in subjects will receive and therefore assign NOM, &°s in objects will receive ACC from the verb, and so on.

English, on the other hand, selects the (apparently marked) 'does not' selection; its &° terms merely inherit the ability to assign Case, but filters out any specific Case to assign. This leads to the possibility that an English &° will enjoy a wider range of Case-assigning possibilities than a verb does; in (20a), the &° 'chooses' to assign nonstandard Case to its complement. The particular selection of the parameter in (21) may depend in part upon the complexity of Case-realization that a language shows generally; languages such as English which lack a complex set of overt Case-markers (English showing Case on pronominals and 'whom' only) will stand a greater chance of selecting the 'does not' option.

Part of the nonstandard puzzle remains, however, since an English conjunct in [Spec, &P] may bear nonstandard Case, as in (20b); this Case may even differ from the Case of the [Comp, &°] term:

23. a. Both [him and I] left early
b. Robin gave both [he and us] a nickel

However, this also results from the parameter mentioned above. Since English &°s do not receive any particular Case specification from a verb, it follows that they will not face the same restriction on their Case-checking of nonfinal conjuncts at LF that other languages' &°s do. This means that languages which permit nonstandard Case in final conjuncts will also allow it in nonfinal ones; languages which prohibit nonstandard Case in coordination-final position will prohibit them elsewhere as well; this prediction appears to hold crosslinguistically.

5.3 The Identity Puzzle

The identity puzzle pointed out the fact that all nonfinal conjuncts must bear identical Case; recall for example the superiority of 'Him, her and Robin left' over *'Him, she and Robin left'. This fact also falls out immediately under the present analysis. As noted in section 4, all [Spec &P] terms lie in the checking domain of &° and simultaneously undergo feature-checking at LF. An &°-chain can only check off a single set of features; any conjunct bearing an aberrant feature causes the form to crash. This directly explains the data in (4) and (5). All nonfinal conjuncts will bear identical Case--standard or nonstandard --because the &° will seek to check off, for instance, only [+NOM] or only [+ACC].

5.4 The Final-Conjunct Puzzle

The distinction between a checking domain and complement domain that the &P-shell structure creates also enables a simple explanation of the final conjunct puzzle, which actually boils down to nothing more than the nonstandard puzzle and the identity puzzle data combined. The final conjunct in English stands exempt from having to bear the same Case as all nonfinal ones; this because the [Comp, &°] does not lie within the checking domain of the &°. The final conjunct receives Case from the &°, but the grammar needs nothing beyond the aforementioned parameter in (20) to account for all the final-conjunct puzzle data.

6.0 Conclusion

NP-coordinations have unique properties, as the four puzzles given at the beginning of this work indicate. Previously, no theory had managed to capture the facts in much more than a descriptive way. The theoretical move to the &P-shell structure, however, relates all the puzzles to two factors: Case-assignment to [Comp, &°] and feature-checking of [Spec, &P]. It does so within the theoretical requirements of Minimality. The success that the &P-shell analysis enjoys in solving these four puzzles suggests that continued investigation will likely reveal further empirical benefits of the analysis.

NOTES

My thanks go to Robert May for helpful commentary on an earlier version of this work.

1. The structure also can account for the only other possible surfacing of conjunctions; that of an &° appearing between each conjunct. A form such as 'Robin and Kim and Terry and Pat', which carries a degree of emphasis, results when the &° raises at PF rather than LF, and all the traces immediately copy the phonetic content of this antecedent. The underlined terms below show 'traces

come to life' under this idea:

i. $[_{\&P}$ Robin $[_{\&'}$ and $[_{\&P}$ Kim $[_{\&'}$ and $[_{\&P}$ Terry $[_{\&'}$ and Pat]]]]]]

The above actually just provides one instance of the general phenomenon that traces may assume phonetic content for purposes of emphasis; see Zoerner (1994) for details.

2. This forces a slight revision of the Case Filter, which becomes a requirement on syntactic positions rather than on NPs per se. Under the new idea, positions such as [Spec, IP] (in finite clauses) and [Comp, V°] must contain a Case-bearing NP. Not every NP need receive direct assignment of Case, however.

3. The claim that overt &°s assign Case better than null &°s do has a correlate in Larson's (1988, 1990) VP-shell analysis. Larson depicts the underlying structure of a double-object construction such as 'Robin sent a letter to Kim' as:

i. $[_{VP}$ Robin $[_{V'}$ e $[_{VP}$ a letter $[_{V'}$ sent to Kim]]]]

The verb 'sent' must raise to fill the empty position, says Larson, because the empty V° slot cannot assign Case on its own; it requires lexical content.

REFERENCES

Brame, M., H. Contreras and F. Newmeyer, eds. 1986. A Festschrift for Sol Saporta. Seattle: Noit Amrofrer.

Chomsky, Noam. 1993. A Minimalist program for linguistic theory. In Hale and Keyser, eds., 1-52.

-----. 1986. Barriers. Cambridge: MIT Press.

Dougherty, Janet. 1983. West Futuna-Aniwa: An introduction to a Polynesian Outlier language. UC Publications in Linguistics, vol. 109. Berkeley: UC Press.

Emonds, Joseph. 1986. Grammatically deviant prestige constructions. In Brame, Contreras and Newmeyer, eds., 92-129

Fukui, Naoki. 1993. Parameters and optionality. LI 19.399-420.

Hale, K. and S. Keyser, eds. 1993. The view from Building 20: Essays in honor of Sylvain Bromberger. Cambridge: MIT Press.

Jones, Wendell and P. Jones. 1991. Barasano syntax. Arlington: University of Texas at Arlington Press.

Larson, Richard. 1990. Double objects revisited: Reply to Jackendoff. LI 21.589-632.

-----. 1988. On the double object construction. LI 19.335-91.

Munn, Alan. 1992. A null operator analysis of ATB gaps. The Linguistic Review 9.1-26.

Press, Margaret. 1980. Chemehuevi: A grammar and lexicon. UC Publications in Linguistics, vol. 92. Berkeley: UC Press.
Shütz, Albert. 1969. Nguna grammar. Honolulu: University of Hawaii Press.
Zoerner, Ed. 1994. Deriving the distribution of conjunctions. Kansas Working Papers in Linguistics 19.217.33.