On the Symmetry of Case in Conjunction

Abstract

In this paper, I argue that all of the conjuncts in nominal conjunction always bear the same case. Apparent counterexamples, where conjuncts seem to differ with respect to morphological case marking are claimed to be either due to a misanalysis of the underlying syntactic structure or due to superficial morphological processes that create the impression of a difference in case marking. Once we control for phenomena of this sort (namely &P-clitics, Suspended Affixation and Allomorphy), we find that case marking is always symmetric in nominal conjunction. This finding is in stark contrast to the phenomenon of \( \phi \)-agreement which is known to exhibit asymmetry effects. Based on this observation, I show that the Chomskyan account to case assignment according to which case arises only as a reflex of \( \phi \)-agreement cannot account for this mismatch without stipulative assumptions. The pattern however follows straightforwardly if we assume that case assignment proceeds on the basis of syntactic structure whereas \( \phi \)-agreement can either be syntactic or postsyntactic. Finally, I show that the generalization established in this paper can be used as a simple diagnostic to distinguish syntactic from morphological case marking alternations.

Keywords: Case Marking, \( \phi \)-Agreement, Conjunction/Coordination, Suspended Affixation, Pronominal Allomorphy, Case Clitics

1. Introduction

Most theories agree that, functionally but also empirically to a certain extent, case marking and \( \phi \)-agreement are mirror images of each other. According to Nichols (1986), case and agreement express the same relation, the only difference being whether the locus of marking is on the head or on its dependents. In Generative Grammar, it has long been the standard assumption (see e.g. Chomsky 1995, 2000, 2001 et seq.) that agreement between the verb and its arguments has the
result that the arguments’ features end up on the verbal head and a case reflex occurs on the argument. In recent years, however, this view has been challenged in various ways. It has been argued that the operations responsible for case marking and agreement are fundamentally different (see e.g. Marantz 1991; McFadden 2004; Bobaljik 2008; Preminger 2014; Baker 2015) or that the agreement is parasitic on case marking and not vice versa (see e.g. Zeijlstra 2012; Wurmbrand 2014; Smith 2015; Bjorkman & Zeijlstra to appear).

In order to bring a new perspective into this discussion, it might be helpful to see how the two processes behave in less canonical environments. One such environment is the relation between a verb and a dependent that consists of several conjoined arguments. In recent years, quite a number of cases have been found where only the features of one – usually the closest – conjunct appear on the verb. Cases of so-called closest conjunct agreement (CCA) have been reported in quite a number of languages and language families: Arabic (see i.a: Bahloul & Harbert 1992; Aoun et al. 1994; Munn 1999), Biblical and Modern Hebrew (Doron, 2000), Dutch (van Koppen, 2005), English (Munn, 1999), Brazilian Portuguese (Schmitt, 1998; Munn, 1999), Hindi (Benmamoun et al. 2009; Benmamoun & Bhatia 2010; Bhatt & Walkow 2013), Tsez (Benmamoun et al., 2009), Slavic languages (Citko 2004; Bošković 2009; Murphy & Puškar 2018; Marušič, Nevins & Badecker 2015), Irish (McCloskey 1986; van Koppen 2007), and many others (see e.g. Johannessen (1998) for an overview). An example of CCA with postverbal conjoined subjects is found in Old Norse. In (1), the clause-initial verb φ-agrees only with the first conjunct, i.e. the first person pronoun. The second conjunct, a third person plural full DP does not φ-agree with the verb.

(1) Hefi [ek ok mínir menn] haft alla þessa stund þat einu oss til framflutningar.
Have.1SG 1 and my men had all this time that only we.DAT to maintenance.
‘All this time have I and my men had only this for maintenance.’


Keeping in mind the many parallels between case and agreement, we might therefore ask the
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question whether a phenomenon like Closest Conjunct Case – a pattern in which only the linearly/structurally closest conjunct receives the syntactically expected case – also exists. Against the background of a theory according to which case assignment is merely a reflex of agreement, Closest Conjunct Case might even be an empirical phenomenon that is to be expected. And in fact, the literature contains occasional remarks that such cases are attested (see e.g. McCloskey 1986; Johannessen 1998; Walkow 2013) but so far, none of the alleged cases of Closest Conjunct Case has been investigated in detail. Contrary to these remarks, I will argue in this paper that none of the cases claimed to be Closest Conjunct Case withstands closer scrutiny. More specifically, I argue that the following generalization holds cross-linguistically:

(2) **Symmetry of Case in Conjunction (SOCIC):**

Case is always evenly distributed amongst all of the conjuncts in nominal conjunction.

To be more concrete, I argue that, once we control for certain superficial morphological operations such as allomorphy and Suspended Affixation which can create asymmetries in form, the conjuncts in nominal conjunction are always identical in morphological case.

In the first, empirical part of this paper, I want to show in detail that the SOCIC generalization holds. As I will illustrate, there are various phenomena cross-linguistically that can create the impression of a violation of (2). Thus, a strong claim such as the one above must be accompanied by a great number of detailed case studies. Each of these case studies will show that claims in the previous literature about asymmetric patterns of syntactic case marking in NP conjunction are only apparent. The second major goal of this paper is to discuss how the various theories of case assignment (and the case-agreement relation) fare when it comes to deriving this generalization. I will show that the Chomskyan approach to case assignment, according to which case marking arises as a reflex of $\phi$-agreement cannot derive the generalization without further ado. I will argue that a theory where case is assigned on the basis of syntactic hierarchy and $\phi$-agreement is potentially parasitic on case assignment (e.g. Bobaljik 2008) fares much better when deriving this generalization. I will illustrate this using two more recent approaches, namely the Upward AGREE
case and the Dependent Case approach.

I will proceed as follows: Section 2, which will be the main part of this paper, will discuss a great number of apparent counterexamples to the generalization in (2) and show that they should be explained in a way that is consistent with it. Each of the three subsections of Section 2 will be devoted to a different phenomenon that obscures the crosslinguistic validity of the generalization in (2). In the final part of Section 2, I will evaluate concrete consequences of the generalization and formulate directly testable hypotheses. In Section 3, I will discuss that the generalization established in the previous sections proves to be problematic for the Chomskyan theory of case assignment. It will be shown however, that it can be easily derived if case assignment is seen as a purely syntactic phenomenon whereas $\phi$-agreement can either be syntactic or postsyntactic. Finally, I will discuss two recent approaches that this finding is compatible with. Section 4 will show very briefly that the SOCIC generalization in (2) can be used as a concrete diagnostic to distinguish syntactic and morphological case marking alternations. Section 5 concludes.

2. Case Studies

As alluded to in the introduction above, there are a number of factors that obscure the SOCIC generalization in (2). Most importantly, there are various morphological phenomena that can create the impression that a certain language has in fact asymmetric case assignment in coordination. In this section, I will discuss several phenomena from typologically diverse set of languages and show that the violations of the SOCIC generalization we find in these languages are only apparent. In doing so, I will classify apparent counterexamples into different groups and show that all of the languages claimed to have asymmetric case assignment in NP-coordination in the literature fall in one of these groups.

Before this can be done, however, some terms contained in the generalization above need clarification. Most importantly, a few words need to be said about the notion of case that will play a role during the discussion. The term case as used in the SOCIC generalization in (2) refers to the actual morphological realization (including non-realization in the case of $\emptyset$-affixes) of the affixes
with the additional qualification that very superficial morphological processes such as deletion or allomorphy can obscure the actual case pattern. The claim at hand is that if one systematically analyzes all of the cases of deletion and allomorphy and investigates in which contexts they occur, then one can draw the conclusion that it is only in these very cases that the morphological marking of two conjoined nouns may differ from each other. Also, it should be mentioned that all examples of case marking in this section involve case patterns where the realization of the case marker does not depend on the referential properties of the host (i.e. its specificity, definiteness etc.). Such cases, usually referred to as cases of Differential Subject/Object Marking, will be discussed in Section 4.

Another factor that needs to be controlled for is ‘nominal conjunction’. It must clearly be distinguished from comitative constructions as the latter quite frequently exhibit asymmetric case marking between the head noun and its comitative adjunct.\(^1\) For the purposes of this paper, the two constructions were distinguished using the criteria in Haspelmath (2007). The most straightforward ones of these criteria are: (i) Adjacency Requirement: Conjuncts usually must appear adjacent to the conjunction and each other whereas comitative phrases can (or even must) be dislocated. (ii) Distinct Events: Conjunction usually allows for a reading where the two conjoined nouns are present in different events. Comitative adjuncts must be present in the same event as their head noun. (iii) Multiple conjuncts: Conjunction is recursive (allows for an infinite number of arguments) whereas comitatives are often restricted to two (one head noun and one adjunct).

The table in (3) summarizes the languages which exhibit seemingly asymmetric case assignment. Languages are already grouped into the phenomena which create the impression of an asymmetry.\(^2\).

(3) Languages with seemingly asymmetric case assignment:

\(^1\)On comitatives, see Stassen (2000); Stolz (2001); Stroh et al. (2006) and, from a more theoretical perspective, Kayne (1994); Zhang (2007).

\(^2\)The table in (3) is, of course, far from exhaustive. In many cases, related languages exhibit similar phenomena. Also, in some cases, the characterization presupposes a certain analysis. E.g. in Welsh, Roberts’ (2005) analysis of soft mutation as a case marker has been called into question by several subsequent publications (see e.g. Tallermann (2006))
I will now turn to the concrete case studies.

2.1 Phrasal Affixes

One of the phenomena we need to take a look at is phrasal affixes, i.e. &P-clitics. Some languages mark the whole conjunction phrase with a case marker rather than every single conjunct. On the surface, this may create the impression of asymmetric case assignment. The pattern is abstractly illustrated in (4).

(4) \([\text{Conj}_1 \& \text{Conj}_2]-\text{CASE}\)

In in given language, the pattern in (4) can be hard to distinguish from something like (5).

(5) *[\text{Conj}_1 \& \text{Conj}_2-\text{CASE}] *

Therefore we need concrete diagnostics that can distinguish between the structures in (4) and (5) and show that (5) is in fact crosslinguistically unattested. One of the more straightforward diagnostics is DP-internal agreement such as agreement of adjectives.

In Estonian, for example, the so-called CATE cases (comitative, abessive, terminative and essive) can optionally cliticize to the whole &P instead of every single conjunct. On the surface, this pattern looks like asymmetric case in conjunction as the non-final conjuncts bear the genitive.

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<table>
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<th>Suspended Affix.</th>
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<td>Many Uralic languages</td>
<td>Many Turkic languages:</td>
<td>English: Emonds (1986)</td>
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However, examples containing adjectives or determiners that agree with the respective head nouns show that all conjuncts bear the genitive and the CATE case markers are attached to the whole &P. Since the CATE cases are formed on the basis of the genitive stem, this may create the expression of two different case markers on two different conjuncts.

The argument against asymmetric case assignment in Estonian is straightforward. The adjective modifying the second conjunct bears genitive as does the first conjunct. This strongly suggests that the structure is as in (8). An analysis in terms of asymmetric case assignment could hardly explain the concord morphology of the adjective.³

In a similar way, postnominal modifiers can show whether an affix is a phrasal clitic or whether it is really part of the last conjunct. However, if a given language does not allow for any postnominal modifiers and its adjectives do not agree in case, the scope of the affix/clitic in question can sometimes be determined by looking at the scope of other elements.⁴

In Udmurt, a Permic language, we find another case that appears to be a violation of (2), at least at first sight. (9) below illustrates two out of the three possibilities to conjoin noun phrases in

³ It is an open question where the genitive case on the individual conjuncts comes from in Estonian. It must be noted that, in Estonian all oblique cases are built on the basis of the genitive case. Given that there is a long discussion about whether there is a difference between postpositions and oblique case markers in Finno-Ugric languages (see recent discussions in Moravcsik (2003); Spencer (2008) on Hungarian), one possible alternative would be to analyze these case markers as P’s which themselves assign case to the individual conjuncts within the conjunction phrase.

⁴ In Hindi, Butt & King (2005) provide evidence that case markers are actually clitics that attach to the phrase as a whole. Apart from conjunction, Butt & King (2005) provide evidence from several particles that can intervene between the case marker and the nominal element it attaches to.
2.1 Phrasal Affixes  

Udmurt.\(^5\)

(9)  
\begin{align*}
\text{a. } & \text{Mon Petyr-en-les’ Maša-jen-les’ mözm-is’ko} \\
& \text{1SG Peter-INS-ABL Masha-INS-ABL miss-1SG.PRES} \\
\text{b. } & \text{Mon Petyr-en Maša-jen-les’ mözm-is’ko} \\
& \text{1SG Peter-INS Masha-INS-ABL miss-1SG.PRES} \\
\end{align*}

‘I miss Peter and Masha.’

In these structures, Udmurt does not employ a conjunction. Rather, it marks every conjunct with the instrumental.\(^6\) In addition, speakers of Udmurt either mark every conjunct with the expected syntactic case (9-a) or the only the last one (9-b). Of interest to the investigation in this paper is, of course, (9-b), which is, again, ambiguous between a structure in which the ablative case attaches to the rightmost conjunct or to the conjunction phrase as a whole. Udmurt is strictly head-final in the NP (i.e. it does not allow for NP-internal material to follow the head noun) and it does not have NP-internal concord like Estonian above. Thus we must dig a little deeper to come up with an argument that the ablative is in fact an &P-clitic.

Udmurt has a peculiar alternation with possessor case.\(^7\) Possessors in Udmurt generally bear genitive case unless the head noun they modify bears accusative. In that case, the possessor bears ablative:

(10)  
\begin{align*}
\text{a. } & \text{Mon Masha-leš apaj-z-e jarat-is’ko.} \\
& \text{1SG Masha-ABL sister-3SG-ACC love-PRES.1SG} \\
& \text{‘I love Masha’s sister’} \\
\text{b. } & \text{Masha-len apaj-ez Petyr-ez jarat-e.} \\
& \text{Masha-GEN sister-3SG Peter-ACC love-PRES.3SG} \\
\end{align*}

\(^5\)For a more detailed investigation of the three types of conjunction in Udmurt see Weisser (2017). All Udmurt examples were, unless otherwise stated, provided by Svetlana Edygarova (University of Helsinki).

\(^6\)The instrumental case can also be used to encode a comitative relation as in (i) below. Nevertheless, comitatives can easily be distinguished as they (a) do not require the head noun to be marked with instrumental as well (b) do not trigger plural agreement (c) need not be adjacent to the noun they modify.

(i) \(
\begin{align*}
\text{Mon verašk-i todmo-en-im kud-ze uram-in pumita-j} \\
& \text{1SG talk-PAST.1SG friend-INS-1SG REL-ACC street-INESS meet-PAST.1SG} \\
& \text{‘I talked with my friend, who I met on the street.’} \\
\end{align*}
\)

Udmurt: S. Edygarova (p.c.)

\(^7\)This alternation is extensively discussed in Assmann et al. (2014).
‘Masha’s sister loves Peter.’ Assmann et al. (2014)

Based on this observation, we can now compare the different cases of the possessors in the asymmetric conjunction construction. Interestingly, two narrow scope possessors as in (11) cannot bear ablative. With a wide scope possessor though, an ablative possessor is acceptable.

(11) a. *Mon Maša-les’ nil-ieni-z Petr-les’ pi-jeni-z-e ad’z’-is’ko.
    1SG Masha-ABL daughter-INS-3SG Petr-ABL son-INS-3SG-ACC see-PRES.1SG
    ‘I see Masha’s daughter and Peter’s son.’

    b. Mon Maša-len nil-ieni-z Petr-len pi-jeni-z-e ad’z’-is’ko.
    1SG Masha-GEN daughter-INS-3SG Petr-GEN son-INS-3SG-ACC see-PRES.1SG
    ‘I see Masha’s daughter and Peter’s son.’

    c. Mon Maša-les’ nil-ieni-z pi-jeni-z-e ad’z’-is’ko.
    1SG Masha-ABL daughter-INS-3SG son-INS-3SG-ACC see-PRES.1SG
    ‘I see Masha’s son and daughter.’

In other words, if the possessor is part of one of the conjuncts, it seems to modify an instrumental DP (12-a). But a wide scope possessor which modifies the whole conjunction, modifies an element bearing accusative (12-b).

(12) a. \([&P \text{ Poss}_1-\text{GEN } \text{DP}_1-\text{INS } \text{Poss}_2-\text{GEN } \text{DP}_2-\text{INS}]-\text{ACC}\)

    b. \(\text{Poss}-\text{ABL } [&P \text{ DP}_1-\text{INS } \text{DP}_2-\text{INS}]-\text{ACC}\)

The minimal pair in (11) receives a straightforward explanation under the assumption that the regular syntactic case marker in the “asymmetric” conjunction construction is actually attached to the whole &P. Under the assumption that it is actually the second conjunct which bears the accusative, the distribution of possessor cases is totally unexpected. We can thus state that the asymmetric conjunction construction obeys the SOCIC generalization.

Other examples of &P-clitics are found in other Finno-Ugric languages such as some local cases in Hungarian (see e.g. Trommer (2008)), in Hindi (Butt & King, 2005), in Welsh (according to the analysis in Roberts (2005)), in many Tibetan languages (Noonan, 2008) and many other
2.2 Suspended Affixation

The second major phenomenon that creates the impression of possible counterexamples to the SOCIC generalization is known as Suspended Affixation (SA).\(^8\) SA is found in a wide range of Eurasian languages from a number of different families. It is very common in Turkic languages (Lewis 1967; Kornfilt 1996; Good & Yu 2005; Kabak 2007; Broadwell 2008; Kornfilt 2012) as well as in Japanese (Ueda & Haraguchi 2008; Nishiyama 2012) and Korean (Yoon & Lee 2005). Furthermore, it is found in the Finno-Ugric language Mari (Luutonen 1997; Guseva & Weisser 2018), the Indo-Iranian languages, e.g. Ossetic (Erschler 2012) and in Armenian. It is reported in Nivkh (Gruzdeva 1998). Kiparsky (1968) reports that some cases of SA (or, in his terms, conjunction reduction) are also found in Vedic Sanskrit and Homeric Greek. Some examples of SA are given below.

\[ (13) \quad \text{alan} \quad \text{-} \quad \text{dew-uj} \quad \text{tarsten} \\
\quad \text{Alan.NOM and you-ABL be.afraid-PAST.1SG} \\
\quad \text{‘I am afraid of Alan and you.’} \quad \text{Digor Ossetic (Erschler, 2012, 157)} \]

\[ (14) \quad \text{Yamada} \quad \text{to} \quad \text{Harada-tati-ga} \quad \text{mat-ta}. \\
\quad \text{Yamada and Harada-COLL-NOM wait-PAST} \\
\quad \text{‘Yamada with his associates and Harada with his associates waited.’} \quad \text{Japanese, H. Saito (p.c.)} \]

\[ (15) \quad \text{köy, kasaba ve kent-ler-imiz-den} \\
\quad \text{village town and city-PL-1PL.POSS-ABL} \\
\quad \text{‘from our villages, towns, cities.’} \quad \text{Turkish: Göksel & Kerslake 2005, p.458} \]

In the example in (14), it seems that the first conjunct bears nominative case and only the second one received ablative case, i.e. the case assigned by the verb tarsten. In Japanese, only the second conjunct bears nominative and in Turkish, only the third of three conjuncts bears the ablative.

\[ \text{On the surface, these examples do not look too different from the ones in the preceding section.} \]

\(^8\)Other terms that have been used in the literature for this phenomenon are Morphological Conjunction Reduction or Morphological Brachylogy.
However, unlike the cases in the previous section, we have good reasons to believe that the case markers in cases of SA are in fact part of the second conjunct rather than a phrasal affix. First, they show the morphophonological behavior of completely regular case markers in the languages in question. In Turkish, for example, the case markers undergo all the phonological processes that operate on the word level such as vowel harmony and consonant assimilation (for discussion see Kornfilt (1996, 2012)). In Meadow Mari, a Finno-Ugric language, we can observe that the suffixes in question do behave like regular case suffixes (and not like postpositions) with respect to stress assignment and vowel reduction as shown in (16) (see Johannessen (1998)).

(16)  
\[
\text{erge} \quad \text{dene} \\
\text{son.NOM} \quad \text{about}
\]

‘his son’

(17)  
\[
\text{ergə-žə-m} \\
\text{son-3SG.POSS-ACC}
\]

If followed by an affix, underlying /e/ is reduced to a schwa. A postposition does not trigger the same effect. But as we can see in (18), the affix in an SA-configuration does.

Another argument for the fact that the case markers in SA constructions do belong to the second conjunct, comes from facts in Japanese and Meadow Mari, where, in some cases, material of the second conjunct can follow the case marker.

(19)  
\[
\text{Hon} \quad \text{issatsu} \quad \text{to} \quad \text{pen-o} \quad \text{nihon} \quad \text{kau.} \\
\text{book one} \quad \text{and} \quad \text{pen-OBJ two} \quad \text{buy}
\]


(20)  
\[
\text{Üder} \quad \text{mej-en} \quad \text{uše-m} \quad \text{den} \quad \text{tej-en} \quad \text{süm-ešte-t.}
\]

‘The girl is in my mind and in your heart.’

Meadow Mari: Guseva & Weisser (2018)

In (19), the numeral-classifier complex of the second conjunct has been extraposed to the right edge
of the conjunct. In (20), the possessive affix of the second conjunct follows the case marker that is suspended. In both cases, we can be sure that material following the case marker unambiguously belongs to the second conjunct. And in both cases, we can also be sure that this material has not been moved to a position outside of the &P because that would cause a violation of the Coordinate Structure Constraint. So, we have to conclude that, unlike with the phrasal affixes in the previous section, case markers in SA configurations are contained in the second conjunct.

However, I argue that cases of SA should nevertheless not be seen as instances of asymmetric case marking either. Rather, there are quite a number of good reasons to assume that, in cases of SA, the actual case suffix is syntactically present on the first conjunct as well. It has been observed (see e.g. Kornfilt 2012) that Suspended Affixation can be approached as the word-internal counterpart of Right-Node Raising and might receive similar analyses. Cases of Right Node Raising have recently been analyzed as ellipsis and/or multidominance (see e.g. the discussion in Barros & Vicente (2011); Belk & Neeleman (2018)). Under both analyses, the case marker is syntactically present on the non-final conjuncts as well. In the case of an ellipsis account, this case marker deletes at PF under identity. In the case of a multidominance approach, the case marker is linearized so that it appears only in &P-peripheral position. Since the existence of an invisible case marker within the first conjunct is thus crucial for the validity of the SOCIC generalization, I will review three arguments in favor of this view.

First and foremost, we can observe that SA is not just restricted to case markers. In the examples from Japanese and Turkish above, other affixes are deleted alongside the case marker. In the Japanese example in (14), the so-called collectivizing affix is deleted on the first conjunct as well. We can tell that, underlyingly, the collectivizer was also found on the first conjunct because one of the available interpretations is ‘Yamada$_i$ and his$_i$ associates and Harada$_j$ and his$_j$ associates waited.’ Even though the DP Yamada does not bear the collectivizing affix, it is interpreted as if it did. This is similar to the Turkish example in (15). Here, the non-final conjuncts are also interpreted as plural and under the scope of the possessive affix (at least under one possible interpretation). Furthermore, we find that SA is not restricted to the nominal domain. It can also apply
in cases of VP-coordination.

(21) Taro-ga utai Ziro-ga odori-hazime-ta.
    Taro-NOM sing Ziro-NOM dance-begin-PAST
    ‘Taro began to sing and Ziro began to dance.’

SA applies to all kinds of inflectional affixes throughout the grammar. If we assumed that case was assigned asymmetrically in Turkish, Ossetic, Japanese or Korean, we would need to assume that possessive affixes, plural affixes or all kinds of verbal affixes would be assigned asymmetrically as well. But since categories like number are usually not conceived of as assigned to the DP, this assumption would be very non-standard (and make all sorts of undesirable predictions).

A second, more straightforward, argument for the fact that the deleted case markers on non-final conjuncts is underlyingly present comes from allomorphy. In some languages, we can observe that the deleted case markers can trigger stem allomorphy. Consider the two examples from Meadow Mari and Ossetic. As one can see in the pronominal paradigms below the respective examples, the nominative form of the pronoun is based on a different stem than the accusative. And in both languages, we find that when one deletes a case marker under SA, the remnant of deletion still shows that there used to be an accusative. The actual remnant of SA deletion is not even a form of the pronominal paradigm at all. It is merely the accusative pronoun minus the accusative case marker.

(22) Pörjeng memna den nunem už-eš
    Man.NOM us.?? and them.ACC sees-3SG
    ‘The man sees us and them.’

Meadow Mari Guseva & Weisser (2018)

(23) 1.Person Plural Pronoun in Mari:

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9This alternation is only visible in the first and second person plural. All other pronouns lack the longer pronominal form. Historically, the longer form derives from the fact that pronouns in Finno-Ugric are often additionally inflected with the regular person affixes (with -na- being the regular 1.PL affix). This is however no longer productive since it occurs only with these two pronouns and even there it is occasionally dropped. Also, some other cases such as the comitative and the comparative also show the nominative stem allomorph. The comparative in (23) is bracketed as it is no longer a productive case form in all dialects (see Alhoniemi (1993) for discussion).
This strongly suggests that the case marker is underlyingly present even though we cannot observe it on the surface. If one assumed that case were assigned asymmetrically here, one would have a hard time finding an explanation for why the first conjunct undergoes stem allomorphy.

A third argument comes from languages like Turkish, where it was noted that phonological processes such as vowel harmony and consonant assimilation can bleed Suspended Affixation for some speakers (Kornfilt 2012). When the two, formally identical, affixes are phonologically quite different, Suspended Affixation seems to be degraded. This, again, receives a straightforward answer under an ellipsis approach since ellipsis is known to be subject to morphophonological similarity requirements. Under an asymmetric assignment account, there is no plausible explanation why the phonological similarity requirement should affect the syntactic case assignment. Take a look at the minimal pair in (26):
2.2 Suspended Affixation

(26)  a. *(hastalan-acak ve doktor-a gid-eceğ]-im
    get.sick-FUT and doctor-DAT go-FUT-1SG
    Intended reading: ‘I will get sick and I will go to the doctor.’

    b. [hastalan-acak ve doktor-a gid-ecək]-sin
    get.sick-FUT and doctor-DAT go-FUT-2SG
    ‘You will get sick and (you will) go to the doctor.’

The reason that SA cannot apply in (26-a), is according to Kornfilt (2012), there is a process that deletes intervocalic /k/ (which is then orthographically represented as ţ). If SA had not applied, the final /k/ of the first conjunct would have been intervocalic and would be deleted. That means that if the /k/ is deleted, the k-deletion rule is violated on the surface. If /k/ is not deleted, then the /k/-deletion rule is violated on some underlying representation. This violation on an underlying representation seems to be sufficient to result in ungrammaticality.

So, to conclude, we have seen a number of reasons that distinguish that SA is not as it is often assumed phrasal cliticization. However, and this is more important for the claim of this paper, we have seen further that SA should neither be viewed as asymmetric case assignment. Rather, the data suggest that underlingly the case marker is actually present on the first conjunct as well. I have argued that, in accordance with recent proposals about syntactic Right Node Raising, Suspended Affixation could receive an analysis as ellipsis and/or multidominance. This means that even though the surface forms of the case markers suggest otherwise, case is underlingly symmetric in these cases as well. I therefore conclude that the SOCIC Generalization is not violated in these cases.

10 As an anonymous reviewer remarks, in many cases, the distinction between affixes and clitics may not be as straightforward as I presented it. In many languages, certain diagnostics either do not apply or yield contradictory results. Also, there might be other language-specific processes such as prosodically conditioned reordering rules of the type discussed in Harris & Halle (2005); Arregi & Nevins (2012, 2017); Salzmann (2017) which might make a distinction in a given language impossible or even undesirable. Crucially, for the purposes of this paper, I have argued that neither case affixes nor clitics are per se a problem for the SOCIC generalization since we have evidence that even with affixes, that underlingly there is also a case marker present on the non-final conjunct in one way or the other. It is nonetheless an interesting question, how intermediate cases should be modelled.
2.3 Allomorphies with Pronouns

In this section, I will discuss the final phenomenon that creates the impression that the SOCIC generalization can be violated. In some languages, particularly those with a somewhat impoverished case inventory, certain pronouns seem to exhibit unexpected forms and this may create the impression of asymmetric case assignment in NP conjunction. In Section 2.3.1, I will compare some properties seemingly asymmetric case marking in English, Danish and Italian. Following existing literature, I will conclude that the seemingly asymmetric case marking patterns are merely due to superficial allomorphy rules that obscure the underlying pattern.

In Section 2.3.3, I will spend some time to discuss the case of Irish, a language for which it has been claimed explicitly that case marking in conjunction is asymmetric. However, I will present some arguments that show that pronouns in Irish also exhibit a case of allomorphy.

2.3.1 English, Danish and Norwegian

When proposing a generalization such as the one in (2) above, one of the immediate objections is of course the cases of conjoined pronouns in English, which exhibit various kinds of mismatches, as illustrated by the examples in (27):

(27)  
   a. *Him and I* are fighting.  \[\text{Parrott (2009)}\]
   b. He says he saw *John and I* last night. \[\text{Johannessen (1998)}\]
   c. He thought that I was coming between *he and his wife*

As has been noted by Johannessen (1998) and Parrott (2009), English is not the only Germanic language which seems to allow for mismatches in this respect. Danish and some dialects of Norwegian seem to pattern alike:

(28) *Ham og jeg* var faktisk sammen.
    He.OBJ and I.SUBJ were in-fact together.  \[\text{Danish: Parrott (2009:286)}\]
(29) Han og meg var sammen om det.
    he.NOM and me.ACC were together about it

Stavanger Norwegian: Johannessen (1998:19)

At first sight, these cases seem like obvious counterexamples to the SOCIC generalization. But on second sight, examples of this sort exhibit a number of unusual properties. First, it must be noted that all of the examples above alternate with a symmetric pattern where the object form of the pronouns appears on all conjuncts. Secondly, we find that there are ordering restrictions for specific pronouns. In English as well as Danish, the first person singular pronoun (i.e. *I in English and jeg in Danish) is restricted to the second conjunct:

(30) a. *I and him are fighting.
    b. *Jeg og ham var faktisk sammen.
       I.SUBJ and he.OBJ were in-fact together.

Danish: Parrott (2009:286)

Third, we find that conjunctional adverbs which linearly intervene between the conjunction and the pronoun decrease the acceptability of the subject form:

(31) a. Peter and I will go to the party tomorrow.
    b. Peter and probably me will go to the party tomorrow.
    c. ?*Peter and probably I will go to the party tomorrow.

Finally, we find that asymmetric patterns are restricted to a subset of pronouns. In English for example, only the first and the third person singular can occasionally show subject forms in coordination. Plural pronouns in subject form in coordination are impossible.

(32) a. *John and they went to the movies.
    b. *John and we went to the movies.

Another striking observation about the asymmetric patterns is that they are only found in the Ger-
2.3 Allomorphies with Pronouns

manic languages where case-marking is restricted to (a subset of) pronouns, whereas full DPs do not show case at all. As Parrott (2009) notes, languages like Icelandic, Faroese and German do not allow for mismatches in case between the conjuncts under any circumstances.\(^{11}\)

Parrott (2009) argues, following Emonds (1986), that English does not have a system of syntactic case to begin with and that it only has allomorphy rules that govern the surface form of pronouns. One such rule states that, in English, a first person pronoun appears as I when it is structurally adjacent to the finite verb. This rule does not apply to pronouns embedded into a coordination which, as a result, usually occur in object form in this context. In order to derive asymmetric cases, he assumes what he calls *supplemental vocabulary items* that are learned at a later level and can overwrite pronoun forms in coordination. The supplemental VI for the first person singular in English has the form in (33):

(33) Supplemental Vocabulary Item:

\[
\begin{align*}
\begin{array}{l}
[D_{+}, +AUTH, +PART, -PL] \Leftrightarrow /ai/ \quad [\&P \ldots \&^0 \ast \ldots ]
\end{array}
\end{align*}
\]

Parrott (2009)

A similar but somewhat less radical approach is taken by Sobin (1997) who assumes that English has case marking but its rules cannot target arguments embedded inside a coordination phrase (see also Schütze 2001). As a result, pronouns inside a coordination phrase usually occur in default form (i.e. object case). As with the accounts above, in order to derive the asymmetric patterns, additional realization rules are assumed. The analogue to (33) is called the ‘...and I...’ Rule by Sobin and essentially assigns nominative to a first person pronoun when left-adjacent to the verb.

For our purposes, it is important to note that under both of these analyses, the SOCIC generalization is not violated. In the former analysis, this is trivially the case since the surface forms of pronouns is not an instance of case assignment to begin with. The surface forms in subject position

\(^{11}\)Sobin (1997) gives some more diagnostics to distinguish allomorphy (or, in his terms, grammatical viruses) from actual syntactic case assignment such cases of overextension as in *between you and I* or the allomorph’s insensitivity to hierarchical structure. For a more elaborate discussion of these diagnostics, see Sobin (1997); Schütze (2001); Parrott (2009).
are as a result of context-sensitive spell-out, i.e. allomorphy. In the case of the latter, syntactic case assignment is crucially symmetric in coordination but it is overwritten by specific allomorphy rules in certain contexts.

2.3.2 **Italian**

The analysis for the Germanic languages above carries over to Italian, where the second person singular pronoun that shows an irregular form when appearing in a conjoined subject. Instead of the expected subject form *tu*, the object form *te* appears. The original subject form is not acceptable in these contexts:

(34) a. Io e te andremo insieme a Roma.
I.SUBJ and you.OBJ go.FUT.I.PL together to Rome.

b. *Io e tu andremo insieme a Roma.
I.SUBJ and you.SUBJ go.FUT.I.PL together to Rome.
‘You and I go to Rome together.’

As with the first person singular pronoun in English, this allomorph appears predominantly when it appears to the right of the conjunction. The subject form that is impossible when occurring to the right of the conjunction is preferred when the order is reversed.

(35) a. Tu e io andremo insieme a Roma.

b. *Te e io andremo insieme a Roma.

As the examples above also show, it is only the second person singular pronoun that shows this alternation. The first person plural allomorph must occur in the subject form (cf. (36)).

(36) *Tu e me andremo insieme a Roma.

Finally, we find, as in English, that conjunctional adverbs that intervene between the conjunction and the pronouns significantly improve the acceptability of the underlying form:
(37) Pietro e probabilmente tu siete stati invitati al colloquio settimana prossima.

‘Peter and probably you are invited for the job talks next week.’

2.3.3 Irish

In Irish, we find a case of pronominal allomorphy that is slightly different from the ones we have seen in English and Italian. In contrast to the languages above, it is not the immediate adjacency to the conjunction that triggers the allomorph but rather adjacency to the verb. And since the subject usually follows the verb immediately, certain pronouns show a different form when appearing in subject position. In case of a conjoined subject, only the first conjunct is realized with the subject allomorph and this gives rise to the impression that conjuncts in Irish bear different syntactic case.

In Irish, full DPs do not show any case marking. Pronouns however show up in two different morphological forms:

(38) Pronouns in Irish:

<table>
<thead>
<tr>
<th></th>
<th>Subjects</th>
<th>Non-subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>mé</td>
<td>mé</td>
</tr>
<tr>
<td>2SG</td>
<td>tú</td>
<td>thú</td>
</tr>
<tr>
<td>3SG.M</td>
<td>sé</td>
<td>é</td>
</tr>
<tr>
<td>3SG.F</td>
<td>sí</td>
<td>í</td>
</tr>
<tr>
<td>1PL</td>
<td>tuí/sìnín</td>
<td>muíd</td>
</tr>
<tr>
<td>2PL</td>
<td>sìbh</td>
<td>sìbh</td>
</tr>
<tr>
<td>3PL</td>
<td>siad</td>
<td>iad</td>
</tr>
</tbody>
</table>

Ó Siadhail (1989)

We can see that only the second person singular as well as the third person (singular and plural) distinguish between these two forms.\(^{12}\) Traditionally, these forms are called conjunctional form and disjunctional form. In the framework of theoretical grammar, however, these two forms have

---

\(^{12}\)Furthermore, it is to be noted that there is a certain range of dialectal variation with respect to this pattern. According to Ó Siadhail (1989), the Munster dialect distinguishes conjunctional and disjunctional pronoun forms only in the third person. The forms of the second person singular have converged to /thú/.
been dubbed nominative and accusative.\textsuperscript{13}

\begin{enumerate}
\item[(39)] D’inis sé do Bhríd é.
\begin{itemize}
\item tell.PAST 3SG.SUBJ to Bhríd 3SG.OBJ
\end{itemize}
‘He told it to Bríd.’ \hfill (Ó Siadhail, 1989, p.208)\textsuperscript{14}
\end{enumerate}

In cases of a conjoined subject, however, we find that only the first conjunct occurs in subject form.\textsuperscript{15}

\begin{enumerate}
\item[(40)] a. Chuaigh Eoghan agus é féin ’na bhaile.
\begin{itemize}
\item go.PAST Owen and 3SG.SUBJ-EMPH home
\end{itemize}
‘Owen and he went home.’
\item b. Chuaigh sé féin agus Eoghan ’na bhaile.
\begin{itemize}
\item go.PAST 3SG.SUBJ-EMPH and Owen home
\end{itemize}
‘He and Owen went home.’ \hfill McCloskey (1986)
\end{enumerate}

\begin{enumerate}
\item[(41)] Chuaigh se-isean agus e-isean ’na bhaile.
\begin{itemize}
\item go.PAST 3SG.SUBJ-CONTR and 3SG.OBJ-CONTR home
\end{itemize}
‘He and he went home.’ \hfill McCloskey (1986)
\end{enumerate}

These examples gave rise to the claim (see McCloskey (1986); Doyle (2002); Walkow (2013)) that only the first conjunct in Irish receives the nominative and all other conjuncts remain without a case. Due to the default nature of the object form, the case-less conjuncts are realized as objects.

If this analysis turned out to be true, then Irish would clearly violate the SOCIC generalization.

At first sight, this seems like a good candidate for an instance of closest conjunct case as we have no reason to believe that Irish makes use of Suspended Affixation or &P clitics. However, as it turns out, these different pronominal forms are better understood as allomorphs triggered by the adjacency to the finite verb (see Carmie (1995); Harley (2000) for the same conclusion). The following insertion rules for the third person masculine singular pronoun exemplify this analysis as they, again, do not make any reference to syntactic case features.

\textsuperscript{13}See e.g. McCloskey (1986); Chung & McCloskey (1987); Noonan (1992); Legate (1999)
\textsuperscript{14}Glosses of the Irish examples have been slightly adjusted for reasons of uniformity.
\textsuperscript{15}Since simple pronouns cannot be conjoined on their own (likely due to the weak phonological nature), examples with conjunction involve emphatic or contrastive particles to which the pronouns can cliticize.
As alluded to above, this analysis comes much closer to the notion expressed in traditional grammars which labeled these forms as conjunctonal and disjunctonal forms. In the following, I will present four arguments that it is in fact the adjacency that triggers the morphological form, not the syntactic case feature.

First, we can, as in the cases of English and Italian above, note that the examples with a pronoun in the subject form become ungrammatical when there is an adverb intervening in between the verb and the subject.

\[(43) \quad \text{a. *Chuartaigh, ar ndóigh, siad an bád.} \]

\[\text{search.PAST of course 3PL.SUBJ the boat} \]

‘They of course searched the boat.’ \[\text{Chung & McCloskey (1987)}\]

This alone is not surprising since adverb placement can be restricted in some languages. However, note that the very same adverb can occur in between the verb and the subject if the subject is not pronominal.

\[(44) \quad \text{Chuartaigh, ar ndóigh, na saighdiúirí an bád.} \]

\[\text{search.PAST of course the soldiers the boat} \]

‘The soldiers of course searched the boat.’ \[\text{Chung & McCloskey (1987)}\]

This strongly suggests that (43) is ungrammatical because the pronoun is not licensed in this position.

The second argument comes from the two copulas in Irish. Important for our purposes is that, while the copula /íl/ is fairly unremarkable from a syntactic point of view, the copula /ís/ one induces an unusual word order from an Irish perspective. While the former leaves the standard VSO structure intact, the latter changes it to VOS. Hence we get minimal pairs like the following:

\[(45) \quad \text{a. Is Éireannach é.} \]

\[\text{COP Irishman 3PL.OBJ.} \]
2 CASE STUDIES 2.3 Allomorphies with Pronouns

‘He is an Irishman.’
(Ó Siadhail, 1989, p.224)

b. Tá sé ina Éireannach.
COP 3PL.SUBJ in.3SG Irishman.
(lit. He is in his Irishman.’)

‘He has become an Irishman’
(Ó Siadhail, 1989, p.226)

If the subject pronoun immediately follows the verb, its so-called subject form is chosen. If another
element intervenes in between the verb and the subject, the default form is chosen.

The third argument also involves a copula construction. In certain contexts, speakers of Irish
can drop the copula _ta_ when another element is fronted. This copula drop does not affect the
semantics of the expression in any way and is purely optional. However, it has a direct influence
on the realization of the subject if the subject is a pronoun. Compare the following minimal pair:

(46) a. Cén aois atá sé?
what age is 3SG.SUBJ

b. Cén aois é?
what age 3SG.OBJ
‘What age is he?’
(Ó Siadhail, 1989, p.215)

As far as I can see, we have no reason to believe that there are two different underlying syntactic
structures to the examples in (46-a) and (46-b). Thus, it would be very surprising to see them differ
with respect to syntactic case marking. If the form alternation with pronouns is simply a case of
allomorphy triggered by the adjacency to the verb on the other hand, then it is easy to understand
however why dropping the copula has an effect on the surface form of the pronoun.

Finally, the fourth argument involving Heavy-NP-Shift comes from Harley (2000). When a
subject pronoun is modified by a relative clause, it is heavy enough to undergo Heavy-NP-Shift
to the final position in the clause. As expected under our assumptions, the pronoun appears in the
object form if it has undergone dislocation:

(47) Tháinig t₁ isteach ina dhiaidh sin [iad sin a bhí le daoradh chun bán]₁
Came t into after DEM 3PL.OBJ DEM C were condemned to death death
‘Those who were to be condemned to death came in after that’  
Harley (2000)

So, to summarize, in Section 2.3, I have discussed some languages which are frequently cited as exhibiting instances of asymmetric case marking in coordination. I have argued though that what looks like asymmetries in syntactic case marking in these languages are rather instances of allomorphy. In languages like English, Danish, Norwegian and Italian, the surface form of some pronouns seems to be sensitive to whether these pronouns are adjacent to a conjunction. In Irish, the morphological form of some pronouns seems to depend on whether the pronoun is adjacent to the finite verb of the clause. The cases at hand have in common that, in all the languages in this section, only a subset of the pronouns shows the alternation. Similarly, we have seen that, in all cases linear adjacency seems to play a crucial role. If the pronoun undergoing the allomorphy and the trigger of allomorphy are separated by an intervening adverb, then the choice of the suppletive pronoun was significantly degraded. Finally, we can note that all of the languages discussed in this section have in common that their case inventory is very impoverished as it is generally restricted to some pronouns. Parrott (2009) calls them vestigial case languages. He thus plausibly assumes that these languages no longer have a productive system of syntactic case marking. Rather, the form alternations of these selected pronouns should not be seen as case alternations but rather arise due to generalized allomorphy rules to begin with. This offers a fundamental explanation why seemingly asymmetric case patterns in conjunction are only found in vestigial case languages. Against the background of this discussion, we can thus conclude that the languages discussed in this section do not violate the SOCIC generalization.

2.4 Empirical Predictions of the SOCIC generalization

In the previous sections I have discussed several cases where the symmetry of case assignment in nominal conjunction seems to be violated. However, as we saw, the phenomena were shown to involve either completely different syntactic structures to begin with (&P-clitics) or relatively superficial morphological processes such as allomorphy that merely obscure the underlying symmetrical case assignment pattern.
In the course of the discussion above, I have tried to provide conclusive arguments that each of the phenomena can be identified unambiguously on the basis of empirical grounds. Thus, we know the contexts in which these phenomena apply. As a consequence, we can further identify a number of immediate predictions that the SOCIC makes. In this subsection, I will highlight three of these predictions and, in each case, illustrate what a potential yet-to-be-discovered counterexample would look like. Note that, in order to exclude cases of allomorphy, the predictions all imply that the case of asymmetric case assignment is systematic, i.e. the asymmetry is more pervasive inasmuch as it turns up not only on one pronoun.

(48) Prediction 1:
If two conjoined NPs/DPs systematically show different morphological case, the SOCIC predicts that all but one of these cases is morphologically zero.

Both systematic phenomena (i.e. &P-clitics and Suspended Affixation) make the prediction that all but one conjunct appear without a case marker. In the case of &P-cliticization, this is due to the fact that, underlyingly, none of the conjuncts have case markers. In the case of SA, all but one case marker is deleted. Hence, a construction like [Conj₁-DAT & Conj₂-GEN] where dative and genitive are formed via affixation of phonological material other than \( \emptyset \) to a stem would be a clear counterexample. In Estonian, which, at first sight, looks like a case like this, the relevant cases such as the terminative are formed on the basis of the genitive stem. Hence, an analysis according to which the terminative affix attaches to the whole &P was possible. This analysis was then confirmed by the data involving case concord on adjectives and determiners.\(^{16}\)

(49) Prediction 2:
If two or more conjoined NPs/DPs systematically show different morphological case, the SOCIC predicts that the case that is not zero is found on a noun that is peripheral to &P.

\(^{16}\)A question that is yet to be answered is whether an example like [Conj₁-ACC, Conj₂-\( \emptyset \) and Conj₂-ACC] would be a counterexample. That highly depends on the properties of SA. In some languages, SA is not completely obligatory and hence one could imagine a case of three conjuncts where SA applies when comparing the two lower conjuncts but it does not apply when comparing the first and the last conjunct. I am not aware of such data at this point.
None of the systematic phenomena could derive a situation in which the second conjunct out of three has a different case than the others. &P-clitics can, of course, only appear at the very edge of a conjunction phrase and SA deletes non-final affixes under identity with the final one. Thus, it is clear that an example such as [Conj₁-∅, Conj₂-CASE & Conj₃-∅] would be a clear counterexample.

(50) Prediction 3:
If two or more conjoined NPs/DPs systematically show different morphological case, the SOCIC predicts that the case that is not zero is found on the final conjunct if it is a suffix and on the first conjunct if it is a prefix.

An &P-proclitic precedes the whole &P and thus, it would create the impression that it attaches to the first conjunct. An &P-enclitic would, on the other hand look like it belonged to the final conjunct. As for SA, I am not aware of SA deleting prefixes but if there were such a case, one would assume that the remaining overt prefix appears on the first conjunct. Similarly for suspended suffixes which always appear on the final conjunct. Thus a situation like [Conj₁-DAT & Conj₂-∅] could not be derived. The DAT-marker cannot possibly be derived as a phrasal affix and, similarly, SA, for all we know, deletes markers on non-final conjuncts and not on final ones.¹⁷

These empirical predictions are readily testable cross-linguistically. In some cases, an in-depth study might be necessary to decide whether an ambiguous example is in fact a violation or not. But as discussed above, some examples would be straightforward counterexamples for which a reanalysis would be hard to motivate. I am, of course, not aware of such counterexamples and the claim of this paper is, of course, that they do not exist.

3. Theoretical Consequences of the SOCIC generalization

In this section, I will discuss the theoretical conclusions that should be drawn from the discussion above. I will argue that the SOCIC generalization strongly suggests that case should not be viewed

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¹⁷Halpern (1995) argues that Wackernagel clitics are actually proclitics that right-attach to the first element. If this analysis is on the right track, such phenomena must be excluded from the set of possible counterexamples to Prediction 3.
as a reflex of $\phi$-agreement. Further, I will argue that, while it is possible to treat case and $\phi$-agreement as completely independent processes, it seems more promising to follow the proposal by Bobaljik (2008) and argue that $\phi$-agreement tracks case assignment. Mismatches between case and $\phi$-agreement with conjoined arguments follow if we assume that case is always assigned on the basis of syntactic hierarchical structure whereas $\phi$-agreement can either apply on the basis of hierarchical or linearized structures. I show that this can be accommodated with two recent theoretical approaches to the relation between case and $\phi$-agreement: the Upward Agree approach as well as a Dependent Case approach.

3.1 The mismatch between case and agreement revisited

The SOCIC states that we never find asymmetric case assignment in conjunction. This is in stark contrast to $\phi$-agreement where we regularly find cases where only one of the conjuncts agrees. The example in (51) gives one of the standard cases of Closest Conjunct $\phi$-agreement and (52) illustrates the mismatch. The case relation affects both conjuncts whereas the $\phi$-agreement relation does not. It affects only the linearly closest conjunct.

(51) Qaraʔat [ʕaliya wa ʕumar] l-qisqa
read.3.FEM.SG Alia.FEM and Omar.MASC the-story
‘Alia and Omar read the story.’ Standard Arabic: (Aoun et al., 1994, 207)

(52) [... V+市委书记 +T ... [&P Subj₁ & Subj₂ ] Obj ]

Crucially, this mismatch always goes into one and the same direction. Case is always assigned on the basis of syntactic structure whereas $\phi$-agreement is not. This raises the question of how the various theories about the relation of case assignment and $\phi$-agreement can derive this finding.

We will start by looking at the Chomskyan way of case assignment, according to which case appears on an argument as a reflex of an established AGREE-relation between that argument and
3.1 The mismatch

a given functional head in the clause (see e.g. Chomsky 2000, 2001). In order to evaluate this theory against the findings of the previous sections, we take a look at the analysis of Closest Conjunct Agreement (CCA) by Bošković (2009) and determine what we need to assume in order to accommodate the SOCIC generalization. Suppose, we want to derive an instance of postverbal first conjunct φ-agreement as above in Arabic (Bošković 2009) also discusses similar examples in Serbo-Croatian). We can assume for the sake of simplicity that there is some functional projection X, which probes for φ-features in its complement domain.

(53) XP
   /\       vP
  X           &P
 /\  |uGend:_ uNumb:_ }  &' DP2
 \  &      \CASE:_ \ }
 DP1       &' \triangle ... 
 {CASE:_ }  &' 

In Bošković (2009)’s theory, the &P-node and DP1 are targeted by probing of X simultaneously.\footnote{Bošković avoids the term \emph{equidistance} but it becomes clear from his discussion of cases of \emph{lethal ambiguity} with last conjunct agreement that the &P-node and DP1 are targeted by Agree simultaneously (see van Koppen (2005) for a similar approach).}

First conjunct agreement in cases like (53) arises because the &P-head is not specified for gender (and cannot compute it from the values of its conjuncts). The number feature on the probe is valued by the number feature on the &P-head whereas the gender feature receives its value from the first conjunct.

So, in order to derive the SOCIC generalization, we would need to assume that the Agree-
relation which targets &P is the one which triggers a case reflex and subsequently, the case features are percolated downwards onto all the conjuncts simultaneously. There are two reasons why I think that deriving the SOCIC generalization this way is undesirable. The first reason is that, as far as I can see, the assumption that it is the Agree-relation between X and &P which triggers the case reflex can be achieved only by an adhoc stipulation. Given that it is crucial for Bošković that these Agree-relations happen simultaneously, there is nothing in the system that tells us which one of the two relations yields a case reflex. In principle, it could be the relation between X and DP₁ yields a case reflex.¹⁹ A derivation like that would result in an instance of Closest Conjunct Case, which is exactly what we want to rule out.

The second, and maybe even more problematic, reason is that Bošković’s theory works for Serbo-Croatian, where CCA is only found with plural conjuncts. So, it is a possible to assume that the number probe targets the &P even though we cannot be sure that it does not receive its number feature from the first conjunct as well. Crucially, this derivation does not work for cases like the Arabic case in (51) or the Old Norse case in (1). In these cases, even the number feature is clearly copied from the first conjunct. In these cases, X arguably never entered into an Agree-relation with the &P-node or the second conjunct to begin with. If it had, we would expect to find morphological reflexes of either one on X (e.g. in the form of plural agreement). Nevertheless, as we can see in (51), both conjuncts bear nominative case. If nominative case were simply a reflex of having undergone φ-agreement with T, it would remain mysterious how the second conjunct received its case feature. It seems that we must conclude that case marking can appear on a given DP despite the lack of a pre-established AGREE-relation. A theory which treats case assignment as a reflex of φ-agreement faces severe problems when deriving mismatch such as (51).

In order to find strategies to derive this mismatch in a satisfying way, we can take a look at other analyses of Closest Conjunct Agreement. Bhatt & Walkow (2013) argue that, as a result of this and other asymmetries, case and φ-agreement should be completely separated. In their treatment of CCA in Hindi, instances of CCA with objects arise because the objects in question have already

¹⁹Or neither, because of lethal ambiguity, a concept which Bošković invokes in cases where Agree determines movement/pied piping.
been inactivated by case-Agree with a lower probe on v. This derivation is schematized in (54):

(54)

Nominative case on the conjoined objects is assigned by v via Agree (indicated by arrow ➀). On a later cycle, the probe on T finds a suitable target, which, however, has already been deactivated by its lower relation with v. In Bhatt & Walkow (2013)’s terms, the &P can only MATCH the features on T but not VALUE them (arrow ➁). This valuation is then postponed to PF (after the linearization) where it chooses the linearly closest target (arrow ➂). The asymmetry of φ-agreement with objects arises because the object wants to agree with different probes - with v to get nominative case, and with T to value T’s features. However, since the object can agree only once, the valuation of the probe on T must wait until after linearization.

Dissociating case marking and φ-agreement completely is certainly a possible way to deal with the mismatches that we have seen. However, given that the existing literature has noted countless examples where agreement and case seem to interact and are dependent on each other, this might seem like an overly strong claim to make. Even for Hindi, Bhatt (2005), whose analysis of case and φ-agreement in Hindi is the basis for Bhatt & Walkow (2013), acknowledges that “it is not known why overtly case-marked NP’s in Hindi-Urdu do not agree.” In other words, it is not clear
why there is a clear connection between nominative and triggering $\phi$-agreement.

In addition, if we follow Bhatt & Walkow (2013) in dissociating case marking and $\phi$-agreement completely, we would expect mismatches in both directions. In their analysis, case-Agree between $&P$ and $v$, in a sense, bleeds syntactic Agree between $&P$ and $T$ because $&P$ is already deactivated. Then however, we would also expect to find cases where a $\phi$-feature probe on a lower head bleeds case assignment by a higher head. The result would be that we find symmetric $\phi$-agreement but asymmetric case in coordination.\(^{20}\) Crucially, the SOCIC states that such cases are unattested.

Many recent analyses tackling the asymmetry of $\phi$-agreement in coordination share the intuition that there is some kind of linearity effect going on in these structures. And in order to have the syntax operate on the basis of hierarchical structure only, a number of recent papers have put the idea forward that linearity effects of this sort are due to the fact that $\phi$-agreement can, at least in part, happen in the postsyntax and, crucially, after linearization (see e.g. Bhatt & Walkow (2013); Marušič, Nevins & Badecker (2015); Marušič, Willer-Gold, Arsenijević & Nevins (2015); Willer-Gold et al. (2016). This idea is illustrated in (55).

(55) Distributed Agree

\(^{20}\)An anonymous reviewer remarks that Bhatt & Walkow might be able to avoid that problem if they assumed that the inherently syntactic part of $\text{AGREE}$, i.e. $\text{MATCH}$ triggers the case reflex on the $&P$. However, I think that this assumption is quite incompatible with the system they set up. In (54), we have seen that $\text{VALUATION}$ is required to deactivate a probe and a goal. Otherwise, $\text{MATCHing}$ (Arrow 2) would already deactivate $T$. What we also see is that case assignment deactivates the $&P$. Otherwise, no CCA in (54) would arise. That means that case assignment is an instance of $\text{VALUATION}$. Accordingly, (Bhatt & Walkow, 2013, p.973) state that “Case licensing is implemented as valuation of the case feature on the goal […] making the case and the $\phi$-features on probe and goal inactive.”. As a result, instances of Closest Conjunct Case could potentially arise if $\text{VALUATION}$ of case-agree is bled by $\text{VALUATION}$ of $\phi$-Agree.
A functional head F that agrees with a complex conjoined argument can do so either in the syntax or at PF. If agree applies in the syntax, it applies on the basis of hierarchical structure. Hence, F targets the &P-node. If however, agree applies at PF, that is after linearization, then F finds the linearly closest conjunct. In a sense, agree is distributed across different modules.

If this solution is on the right track, then we might restate the observed mismatch between case assignment and φ-agreement as follows:

(56) Corollary:

Case assignment is an operation that applies on the basis of hierarchical syntactic structure whereas φ-agreement can, at least in part, apply on linearized structures.

If linearity effects with φ-agreement are due to φ-agreement applying in the postsyntax after linearization, then we can simply say that case, for some reason, is always assigned on the basis of hierarchical structure and never on the basis of linearized structures. Mismatches with conjoined arguments as in (51) can arise if case assignment applies before linearization and φ-agreement afterwards.

In the next section, I will show that this corollary can nicely be derived under two alternative
approaches to case assignment: (i) The Upward AGREE approach and (ii) The Dependent Case Approach.

### 3.2 The SOCIC Generalization in an Upward Agree Approach

In recent years, the Chomskyan approach to case assignment, which was discussed in the previous section, has been challenged from various perspectives. One of the alternative approaches on the market assumes that case is in fact assigned via AGREE as in the Chomskyan model, however the direction of AGREE is different. Rather than the probe c-command its goal, the order is reversed. For a successful AGREE relation to hold, the goal must c-command its goal. Probing proceeds upward and feature violation proceeds downward in the tree. This approach is known under the label *Upward Agree Approach* and has gotten quite a bit of attention during recent years (see e.g. Zeijlstra (2012); Bjorkman & Zeijlstra (to appear); Wurmbrand (2014); Smith (2015); Haddad & Wurmbrand (2016)). The following representations give an abstract example:

![Diagram](image)

In (57), the probe P is c-commanded by the goal G. This is, under the assumptions of the Upward AGREE approaches, the prototypical configuration for AGREE to take place. In (58), the probe c-commands the goal which is thought to be impossible. However, the different Upward AGREE approaches differ as to what happens in configurations like (58).

Bjorkman & Zeijlstra (to appear), for example, assume that - in parallelism to the Chomskyan approach - valuation in (58) is possible after all if there is already a pre-established AGREE relation between P and G. In other words, downward agreement can be possible if there is already a pre-established relation between the two heads in question.

Wurmbrand (2014); Smith (2015); Haddad & Wurmbrand (2016) assume that syntactic downward AGREE is impossible in general. However, in some cases, probes that remain unvalued in the syntax because they c-command their goals can be repaired by postsyntactic agreement at PF.
3.2 Upward Agree

Regardless of which of the two options we choose, the SOCIC generalization can be derived very straightforwardly. Positing that \textit{AGREE} proceeds in an upward fashion makes it possible that conjoined DPs probe for case features independently of any sort of $\phi$-agreement. Due to reasons of Minimality, both DPs will inevitably find the same case assigner and thus receive the same case feature values:

\begin{align*}
\text{(59)} & \quad \text{Step 1: Upward Probing of Case:} \\
\text{(60)} & \quad \text{Step 2: Downward Probing of } u\phi:
\end{align*}

In (59), both conjoined subjects bear an unvalued case feature which then probes upward to find a case assigner. They both find T, which then assigns nominative case.\textsuperscript{21}

In a second step in (60), the yet unvalued $\phi$-probe on T probes for $\phi$-features. Depending on the assumptions discussed above, this probing can either apply as parasitic to a pre-established \textit{AGREE} relation, or it will apply at PF. And depending on the featural makeup on the specific heads this downward \textit{AGREE} relation will then target the linearly closest DP or the $\&P$-node. The former results in Closest Conjunct $\phi$-agreement whereas the latter results in either resolved or default $\phi$-agreement.

\textsuperscript{21}An anonymous reviewer remarks that given that there is potentially an infinite number of conjuncts of a conjoined subject, functional heads such as T in the case at hand must be able to assign a given case multiple times under such an account. While this is certainly a non-standard assumption, I do not see it as an immediate problem.
As one can see, the SOCIC generalization falls out of this theory without further ado. Since case probing is necessarily upward and this is the prototypical configuration for syntactic AGREE to take place, case assignment is necessarily always symmetric with conjoined elements. φ-agreement on the other hand proceeds downwards in at least a subset of the cases. Hence, contexts may arise in which the configurational requirements for AGREE are not met. In these contexts, asymmetric φ-agreement can arise.

3.3 The SOCIC Generalization in a Dependent Case Approach

In the previous section, we have seen that the SOCIC generalization and the resulting mismatch between case and φ-agreement basically fall out as expected under the assumption of an Upward Agree approach. The reason for this was that reversing the direction of AGREE automatically entailed a reversal of the order of application of case AGREE and φ-agreement AGREE. If case assignment precedes φ-agreement, then a given theory can be made compatible with the SOCIC generalization.

In this section, we will take a look at another recent alternative proposal of how case assignment proceeds, namely the Dependent Case Approach (see e.g. Marantz (1991); McFadden (2004); Bobaljik (2008); Preminger (2014); Baker (2015)). Under the assumptions of a dependent case approach, the arguments in a given domain are assigned case simply by referring to their structural relations between each other. If there is just one argument in a given domain, it is assigned the unmarked case. If there are two arguments in a given domain, languages vary as to whether the higher one or the lower one receives the marked case. Then, in a second step, the other argument receives the unmarked case. And as for the relation of case marking and φ-agreement, it has been proposed that the outcome of the case assignment algorithm then can serve as an input to the φ-agreement computation (Bobaljik 2008).

Given that, in a Dependent Case approach, case is assigned purely on the basis of structural relations, and independently of φ-agreement, it is clear that the SOCIC generalization can be made to fall out of the theory. However, since the dependent case assignment algorithms that have been
proposed in the literature crucially refer to the number of arguments in a given domain, we need to say something extra about conjunction patterns. Since conjunction adds a potentially infinite number of DPs in a given domain, we need to make sure that this does not affect the case marking pattern.

The first thing that we need to make sure is that the highest &P-node that dominates all DPs (and not the DPs themselves) counts as a coargument for DPs in other syntactic positions.\(^{22}\)

\[
(61) \quad \begin{array}{c}
\text{vP} \\
\text{&P} \\
\text{DP}_1 \\
\text{&} \\
\text{DP}_2 \\
\text{&} \\
\text{V} \\
\text{DP}_3
\end{array}
\]

&Ps are known to inherit many properties of the categories they conjoin such as distributional or selectional properties. Thus, it comes as no surprise that they can count as coarguments for the purposes of case assignment. In (61), only the &P c-commands DP\(_3\) (DP\(_1\) and DP\(_2\) do not) and thus DP\(_3\) and &P are the crucial coarguments that lead to nominative case on the &P and accusative on DP\(_3\) (in a nominative-accusative system).

A second necessary assumption, which is maybe more problematic to derive, is that the conjoined arguments must not count as coarguments for each other.

\[
(62) \quad \begin{array}{c}
\text{&P} \\
\text{DP}_1 \\
\text{&} \\
\text{DP}_2
\end{array}
\]

\(^{22}\)It presumably does not suffice to specify that any &P counts as a coargument because conjunction of more than two DPs is usually thought to involve the use of recursive embedding via multiple &Ps (see Johannessen (1998); Progovac (1998a,b); Weisser (2015))
Given that conjoined arguments always bear the same syntactic case, we of course do not want them to count as coarguments for each other and thus assign case to each other. It is, however, not clear how this can be achieved. Given that arguments have been argued to be in a c-command relation for various reasons.\textsuperscript{23} What one could say in order to prohibit case assignment between DP\textsubscript{1} and DP\textsubscript{2} is that the &P counts as its own case assignment domain (parallel to the DP itself which counts as its own case domain e.g. for genitive assignment). However, this would be a quite undesirable stipulation because the only purpose of that posited domain would be to prevent case assignment rather than facilitate it. We would thus never get to see positive evidence for &P being a relevant domain in a dependent case approach.

The third and final assumption we need to make is that once the &P-node has been assigned case via the dependent case algorithm, it passes it down symmetrically to all of the DPs it dominates.

Based on these assumptions, case assignment can apply successfully with conjoined arguments and the result may then serve as input for the $\phi$-agreement computation as in Bobaljik (2008) where case determines the accessibility for subsequent $\phi$-agreement. To derive resolved or default agreement, no further assumptions are necessary. To derive cases of Closest Conjunction $\phi$-agreement, we need to make the small adjustment that not always is the highest accessible DP that controls

\begin{footnotesize}
\begin{itemize}
\item Various arguments have been made in favor of an asymmetric conjunction phrase with the first conjunct c-commanding the second one. The main arguments come from binding, extraposition, residual cases of movement, etc. See Munn (1993, 1999); Zoerner (1995); Johannessen (1998); Johnson (2009); Weisser (2015). However, also see Weisser (2015) for a recent critical discussion of whether these arguments still hold.
\end{itemize}
\end{footnotesize}
agreement but sometimes also the linearly closest one.

Note that all of these assumptions are necessary to accommodate conjoined arguments in a dependent case approach. But once we have made these assumptions, the SOCIC generalization also falls out as expected. The reason for this was that, again, since case precedes \( \phi \)-agreement in this theory, the derivations are compatible with the abstract order of operations postulated in Section 3.1.

4. Empirical consequences of the SOCIC generalization

In this section, I briefly want to illustrate that the SOCIC generalization can serve as a simple diagnostic to decide whether a given case alternation is syntactic or morphological in nature. This is not an unprecedented claim. For example Legate (2014) uses this test to support her claim that certain instances of differential subject marking are morphological rather than syntactic.

(64) migle, vi baba-n va zu-al kala därd-en furu-yan-exa
    behold you.SG.POSS father-ERG and I.ABS-FOC great pain-INSTR search-IPL-LV.PRES
    vax
    YOU.SG.DAT
    ‘Behold your father and I search you with great pain.’


The example above shows that the case alternation of transitive subjects between ergative (on full DPs) and absolutive (on pronouns) is morphological in nature rather than syntactic. Otherwise it could hardly be explained how the different case markers can show up on conjoined DPs.

The findings of this paper provide strong support for the use of the coordination test for exactly that purpose. What we found is that there are no asymmetry effects with case marking in coordination unless they are caused by superficial morphological operations such as Suspended Affixation or allomorphy. The example above thus suggests that the case alternation between pronouns and full DPs is ultimately also an instance of allomorphy.

In principle, this test can be used for any phenomenon where a given theta role can be expressed with two or more DPs with different case markers. To give a toy example, take the famous
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possessor case alternation between dative and nominative in Hungarian. Based on the linear order of the possessor and the determiner \(a/az\) and examples involving Left Branch-extraction of possessors, Szabolcsi (1994) claims that the difference in case arises due to a difference in syntactic position. If this is true, we expect not to be able to conjoin a dative and a nominative possessor. The prediction is borne out. Whatever order we use, the result is ungrammatical:

(65)  
\begin{align*}
\text{a. } & *\text{Mari-nak és János-∅ (a) kalap-ja(-i)} \\
& \text{Mary-DAT and János-NOM DET hat-3-PL} \\
\text{b. } & *\text{János-∅ és Mari-nak (a) kalap-ja(-i)} \\
& \text{János-NOM and Mary-DAT DET hat-3-PL} \\
& \text{‘Mary and János’s hat’} \\
\end{align*}

A. Barany (p.c.)

In Finnish, direct objects can bear three different cases (see Kiparsky (2001) for discussion). Pronouns bear accusative marking \(-t/-t/-\), full DPs bear the genitive case marker \(-n/-n/-\) and objects of atelic verbs bear the partitive case marker \(-a/-a/-\):

(66)  
\begin{align*}
\text{a. } & \text{Me nä-i-mme häne-t.} \\
& \text{1.PL see-PAST-1.PL 3.SG-ACC} \\
& \text{‘We saw her/him.’} \\
\text{b. } & \text{Me nä-i-mme karhu-n.} \\
& \text{1.PL see-PAST-1.PL bear-GEN} \\
& \text{‘We saw a/the bear.’} \\
\text{c. } & \text{Me nä-i-mme karhu-j-a.} \\
& \text{1.PL see-PAST-1.PL bear-PL-PART} \\
& \text{‘We saw (some of the) bears.’} \\
\end{align*}

Kiparsky (2001)

Based on the generalization we established, we may thus wonder whether the different case markers can be conjoined. A pronoun bearing accusative and a full DP bearing genitive can be combined without a problem in both orders:

(67)  
\begin{align*}
\text{a. } & \text{Me nä-i-mme häne-t ja karhu-n.} \\
& \text{1.PL see-PAST-1.PL 3.SG-ACC and bear-GEN} \\
& \text{‘We saw her/him and a/the bear.’} \\
\end{align*}
It is, however, not possible to conjoin a partitive object with a pronoun (or a full DP):

(68) a. ??Me nä-i-mme häne-t ja karhu-j-a.  
   1.PL see-PAST-1.PL 3.SG-ACC and bear-PL-PART  
   Intended: ‘We saw her/him and some bears.’  

b. ??Me nä-i-mme karhu-j-a ja häne-t.  
   1.PL see-PAST-1.PL bear-PL-PART and 3.SG-ACC  
   Intended: ‘We saw some bears and her/him.’ A.Vainikka (p.c.)

As in Hungarian, the results pattern nicely with the analyses in Kiparsky (2001); Vainikka & Brattico (2014, 2016) where it is argued that the alternation between accusative and genitive is a morphological phenomenon but the partitive is assigned by a different (atelic) little v and thus due to a difference in syntactic structure.

Finally, I want to relate the findings of this paper to a recent paper on Differential Object Marking (DOM). DOM is characterized by the fact that the case marking of the direct object depends on its referentiality. Typically, direct objects that are high in specificity, definiteness or animacy receive a special case marker whereas objects low in these respects remain unmarked. In the sample in Section 2, languages where case marking depends on referential properties were deliberately excluded. But what the survey in Kalin & Weisser (2018) show is that case marking which is dependent on referential properties can in fact be asymmetric. Nine out of eleven DOM-languages from five different language families allow for conjunction of objects with different case markers:

    kumaar car-DOM-COORD money.NOM-COORD ask.PAST-3M.SG  
    ‘Kumaar asked for the car and money.’  

Tamil: Kalin & Weisser (2018)
Thus, case marking which is dependent on referential properties seems to behave fundamentally different from case marking that is independent. This casts doubt on approaches in which case assignment in both contexts follows from the same syntactic mechanisms. The paper by Kalin & Weisser argues that especially movement-based approaches fall short of deriving these data. But, more generally, since we have seen that morphological operations such as Suspended Affixation and allomorphy can create asymmetric patterns, the data above suggest that, at least in some languages, there may be morphological processes which are responsible for asymmetric patterns in the case of Differential Object Marking as well. Thus, given what we have said in this paper, approaches to DOM should provide an answer to the following question: Why is it that regular syntactic case assignment that is independent of referential properties obeys the SOCIC generalization but DOM case assignment in many languages does not?

5. Conclusion

This paper pursued two major goals. The first and foremost goal was an empirical one, namely to show that contrary to certain claims in the literature, a phenomenon like closest conjunct case does not exist. In order to show that, I conducted a number of case studies about configurations where case marking seems to be asymmetric in the sense that not all conjuncts bear the same case marker. However, I showed that all of these cases can, and in fact should, receive a different explanation. Either the asymmetry in case marking was due to a misanalysis of the underlying syntactic structure (as with &P-clitics) or due to superficial morphological processes that delete
a case affix or overwrite it with a different pronominal allomorph. Based on these findings, I proposed the following generalization:

(72) **Symmetry of Case in Conjunction (SOCIC):**

\[
\text{CASE is always evenly distributed amongst all of the conjuncts in nominal conjunction.}
\]

The second major goal of this paper was to show that this empirical generalization has immediate consequences for the theoretical relation between case marking and $\phi$-agreement. Case is always symmetric whereas $\phi$-agreement is not. It was shown that the Chomskyan theory according to which case assignment arises as a reflex of $\phi$-agreement faces serious problems when trying to derive this generalization. I then went on to show that two alternative proposals, namely the Upward Agree approach as well as the Dependent Case approach fare much better when it comes to deriving the asymmetry between case and $\phi$-agreement. The reason why they do much better is that, in both theories, case assignment is seen as the basic operation with $\phi$-agreement potentially being parasitic or dependent on case assignment. This was in line with our finding that the SOCIC generalization was easily derivable if one assumed that case is universally a syntactic phenomenon whereas $\phi$-agreement can be syntactic or postsyntactic.

The final section showed that the validity of the SOCIC generalization provides us with a straightforward test to distinguish syntactic and morphological case alternations and while it yields correct results for many well-studied case marking alternations, it also provides us with some surprising results with cases of Differential Object Marking.

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