Determiner Removal in Balinese non-pivot agents[*]

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Abstract

Patient voice clauses within the symmetric voice system of Balinese disallow any extraction from the external argument position, while definite external arguments are blocked from occurring altogether (Wechsler and Arka 1998). The former is traditionally taken as evidence for syntactic ergativity in Austronesian (Huang 1994, Aldridge 2004, et seq.). The latter has recently been argued to provide evidence for post-syntactic case licensing via adjacency with the verb (Levin 2015, Erlewine et al. 2015, et seq.). In this paper, we offer a simple alternative explanation to the in situ properties of patient voice agents in Balinese – one that does not make reference to case. We argue that patient voice heads come with a feature that triggers DP-shell removal of the external argument (Müller 2017), resulting in the loss of a determiner and a category D-feature that would otherwise enable extraction.

1 Introduction

Like many Western Austronesian languages, Balinese exhibits a voice system in which one argument, called the pivot, is priviledged in some way. The Balinese voice marking system is symmetrical. Both patient voice and agent voice require two arguments,[1] where the order S(V)O is reversed in patient voice, hence O(V)S. Agent voice is marked with a prefix *ng-* whereas patient voice is morphologically unmarked.

(1)   a.   Nyoman ejuk   polisi.   *patient voice*
               Nyoman PV.arrest police
               'A policeman arrested Nyoman.'   (Arka 2003: 106)

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[1]Throughout this paper, we use the terms agent and patient for the thematic role of the external and the internal argument, respectively.

b. Polisi ng-ejuk   Nyoman.   *agent voice*
   police AV-arrest Nyoman
   'A policeman arrested Nyoman.'   (Arka 2003: 106)

The agent of patient voice clauses exhibits non-pivot properties, in that it is banned from undergoing topicalization, extraposition, and *wh*-movement. Whereas traditional accounts have attributed the ban on extraction of non-pivots to syntactic ergativity (Huang 1994, Aldridge 2004, et seq.), a more recent line of analyses argues that non-pivots are frozen in place due to the lack of syntactic case assignment, resulting in an alternative case licensing mechanism that is operative on PF and requires linear surface adjacency with the verb (Levin 2015, Erlewine et al. 2015, 2017, 2019, Erlewine 2018). Balinese constitutes a particularly interesting case study within the Austronesian language family, as it shows additional adjacency effects where for example quantifiers which are generally able to occur pre- and post-nominally are prohibited from appearing between the in situ agent and the verb in patient voice clauses.

This paper argues against post-syntactic case-licensing approaches that have been proposed for Balinese. Instead, we claim that structure removal (Müller 2017) of the agent's DP-shell in patient voice clauses can single-handedly derive the Balinese in situ properties. In fact, structure removal is one of the many components of Levin's (2015) original account of the Balinese facts, but it is modeled as a post-syntactic last resort operation. We will show that a syntactic structure removal operation suffices and no reference to post-syntactic case licensing is necessary. Even more so, the analysis is completely independent of the presence of a particular case system – a promising result since Balinese does not show any case morphology.

The rest of this paper will be structured as follows. Section 2 will introduce data on the Balinese noun phrase and the crucial empiricial generalizations for patient voice agents that need to be derived. Section 3 will discuss post-syntactic case licensing approaches and point out several problems. These will be solved in our approach, presented in section 4, divided into a syntactic and a semantic part, followed by an account of the additional adjacency effects. We will conclude in section 5.

2   Empirical Generalizations

This section provides an overview over the noun phrase structure in Balinese as well as the in situ properties of agents in patient voice clauses.

2.1   The Balinese noun phrase

Descriptions of the nominal domain in Balinese show modifiers like PPs and adjectives always following the noun they modify (Arka 2003, Satyawati 2015), demonstrated in (2-a) and (2-b). Definiteness is marked by the suffix *-ne* which can additionally occur with the postnominal determiners *ene* and *ento* (2-c).[2]

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[2]From the descriptions in Arka (2003) it seems that both the overt determiners and/or the suffix *-e* can mark definiteness. Since neither Arka (2003) nor Levin (2015) are explicit about the syntactic conditions and consequences, we will assume that overt determiners instantiate D heads, and the suffix *-e* is a

(2)   *The nominal domain in Balinese*

    a.   dagang celeng uli   Badung
        trader pig   from Badung
        'a pig trader from Badung'   (Arka 2003: 105)

    b.   Siap   selem anggon caru
        chicken black use   caru
        'Black chicken is used for offering'   (Satyawati 2015: 125)

    c.   celeng-e ene
        pig-DEF this
        'this pig'   (Arka 2003: 105)

Arka (2003) describes three universal quantifiers *onya, makejang,* and *sami* (= all), uniformly occuring to the right of a noun, as shown in (3) for *onya*. Arka (2003: 107) concludes that *onya, makejang,* and *sami* are merged in a rightward specifier of DP.

(3)   dagang celeng uli   Badung ento onya
       trader pig   from Badung that all
       'all of the pig trader from Badung'   (Arka 2003: 106)

Levin (2015) discusses novel empirical data on weak (existential) quantifiers such as *liu* (=many) which can occur to the right or to the left of the head noun. In addition to the examples in Arka (2003: 16-17,183-184) with *liu* following the noun, Levin (2015) provides data where *liu* precedes the noun, see (4).

(4)   *Pre- and postnominal quantifiers in Balinese*   (Levin 2015: 76)

    a.   (Liu) cicing (lui)   n-gugut Nyoman.
        many dog   many AV-bite Nyoman
        'Many dogs bit Nyoman.'

    b.   Cicing-e n-gugut (liu)   anak   cerik (liu).
        dog-DEF AV-bite many person small many
        'The dog bit many children.'

Note that similar constructions exist for strong (universal) quantifiers, shown in (5). Arka (2003), however, attributes the Q-DP order to an instance of *quantifier float*, a phenomenon well known from languages like German (Giusti 1990) and French (Sportiche 1988).

(5)   (Onya) cerik-cerik-e   (onya) meli   jaja.
      all   child-child-DEF all   AV.buy cake
      'All the children bought cake.'   (Arka 2003: 44)

In (6), we give further examples which demonstrate uncontroversially the existence of quantifier float, where quantifier and associated DP are underlined and separated by an

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syntactic reflex of definiteness.

adverb.

(6) *Quantifier float in Balinese* (Arka and Dalrymple 2017: 277)

    a. Ia n-yemak <u>nyuh-e</u> ibi <u>makejang/liu/dadua</u>.
        3 AV-take coconut-DEF yesterday all/many/two
        'She/he took all/many/two coconuts yesterday.'

    b. <u>Makejang/liu/dadua</u> ibi <u>nyuh-e</u> jemak=a.
        all/many/two   yesterday coconut-DEF PV.take=3
        'She/he took all/many/two coconuts yesterday.'

From a cross-linguistic perspective (Fitzpatrick 2006, Ko 2014), Balinese quantifier float is remarkable in two ways. First, universal as well as existential quantifiers are able to undergo quantifier float and pattern alike. Second, the associated noun phrase does not have to precede the quantifier (6-b), thereby making a *stranding analysis* (Sportiche 1988, McCloskey 2000) very unlikely.

2.2 Patient voice in situ agents

Balinese patient voice constructions show a definiteness effect, in that definite DPs are illicit in the external argument position, shown in (7-a). This contrasts with indefinite noun phrases, pronouns, and proper names, as shown in (7-c) and (7-b).

(7) *A definiteness effect with patient voice agents*

    a. *I Wayan gugut cicing-e (ento).   *definite*
       ART Wayan PV.bite dog-DEF that
       'The dog bit Wayan.'   (Wechsler and Arka 1998: 401)

    b. I   Wayan gugut cicing.   *indefinite*
       ART Wayan PV.bite dog
       'A dog bit Wayan.'   (Wechsler and Arka 1998: 401)

    c. Be-e   daar ida/Nyoman.   *pronoun/proper name*
       fish-DEF PV.eat 3SG/Nyoman
       '(S)he/Nyoman ate the fish.'   (Levin 2015: 77)

Moreover, they cannot be dislocated from post-verbal position, i.e. they cannot extrapose (8-a), nor can they undergo topicalization (8-b) or *wh*-movement (8-c).[3]

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[3]We will not consider *wh*-movement any further for two reasons. First, Kim et al. (2019) show that Balinese *wh*-arguments are obligatorily in situ. Note that the grammatical counterparts to (8-c) Levin (2015: 73-74) and Erlewine et al. (2015, 2017) provide, see e.g. (i), always constitute string vacuous *wh*-movement, thus are compatible with a *wh*-in situ analysis. Hence, the unacceptability of (8-c) could be attributed to a more general constraint. Second, our own elicitation reveals an additional dispreference for *wh*-agents in patient voice sentences – ex situ as well as in situ, shown in (ii).

(i) Nyen*i* __*i* ng-alih bawi-ne punika ditu ibi?
    who   AV-seek pig-DEF that   there yesterday
    'Who looked for that pig there yesterday?'   (Levin 2015: 73)

(8)   *Agents in patient voice stay in situ*

    a. *Siap-e   uber   ___$_i$ ke jalan-e   cicing$_i$.   *extraposition*
       chicken-DEF PV.chase   into street-DEF dog
       'A dog chased a chicken into the street.'   (Wechsler and Arka 1998: 405)

    b. *Cicing$_i$ ia   uber   ___$_i$.   *topicalization*
       dog   3SG PV.chase
       'A dog, it chased him/her.'   (Levin 2015: 73)

    c. *Nyen$_i$ montor anya beli   ___$_i$.   *wh-movement*
       who   car   new PV.buy
       'Who bought a new car?'   (Levin 2015: 74)

Additionally, Levin (2015) notes two further restrictions that apply to patient voice agents. Weakly quantifiying determiners as well as adverbs cannot intervene between in situ agents and the verb, see (9-a) and (9-b).

(9)   *Adjacency restrictions with adverbs and quantifiers*   Levin (2015: 76)

    a. Nyoman gugut (*liu) cicing (liu).
       Nyoman PV.bite many dog   many
       'Many dogs bit Nyoman.'

    b. (Sanget-sanget) gamelan-e   (sanget-sanget) depak (*sanget-sanget) ia
       very-very   gamelan-DEF very-very   PV.hit   very-very   3SG
       (sanget-sanget).
       very-very
       '(S)he was hitting the gamelan really hard.'

Finally, weak quantifiers allow for their restrictors to not be pronounced. Crucially, this option is excluded with patient voice agents, as Udayana (2013) observes in (10-b).

(ii)   *Context:* At a rally, you see a child being carried away. You ask yourself who arrested the child.

    a. Nyen$_i$ ___$_i$ ng-ejuk   anak   cerik ?
       who   AV-arrest person small
       'Who arrested the child?'

    b. *Anak cerik ejuk   nyen?
       person small PV.arrest who
       'Who arrested the child?'

    c. *Nyen$_i$ anak   cerik ejuk   ___$_i$?
       who   person small PV.arrest
       'Who arrested the child?'   (Ayu Gross, p.c.)

As will become clear in section 4, the theory proposed in this paper can account for the general dispreference in more than one way. For example, *wh*-features assumed to be situated on the D head (i.a. Ouhalla 1996) will become unavailable via removal of D, which will subsequently lead to a crash at the interfaces. Alternatively, under a *Q-particle* theory (Cable 2010) for *wh*-words the particle would intervene, so that the removal feature on the patient voice head cannot access the D head, following the locality condition in (21).

(10)   *Illicit NP-drop in patient voice agents*   Udayana (2013: 52)

      a.   (Anak) liu   nyagur ia.
              person many AV.hit   3
              'Many (people) hit him/her.'

      b.   Ia jagur *(anak) liu.
              3 PV.hit   person many
              'Many (people) hit him/her.'

The word order effects in (9) have been taken as crucial evidence for a case-licensing approach under adjacency with the verb. In our account, they will follow from a restriction on adverb placement that draws an interesting parallel to the quantifier float properties of Balinese. More importantly, our theory provides a straightforward explanation for the restriction in (10), in contrast to post-syntactic case licensing theories.

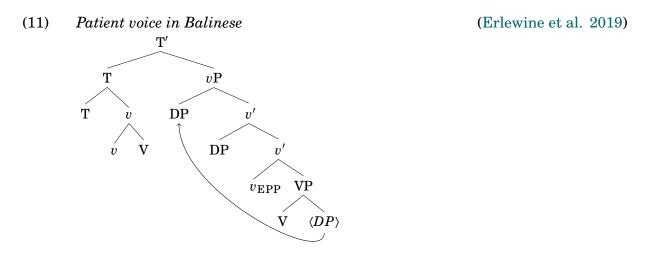# 3 Patient voice in situ agents via post-syntactic case licensing

Recent theories of case assignment and nominal licensing have tied word order restrictions to an adjacency contraint. This allows nominals without a dedicated case assigner to be licensed post-syntactically via adjacency to V (Levin 2015, Branan 2017, Erlewine et al. 2015, 2017, 2019, Erlewine 2018, van Urk 2019). Within Austronesian voice systems, the movement restrictions on non-pivots are argued to follow from the lack of a case assigner/nominal licenser, which in turn forces non-pivot arguments to remain in a position adjacent to the verb. Balinese is of special interest since it seems to give rise to a *head-to-head* adjacency requirement, resulting in a definiteness effect. Whereas Erlewine et al. (2015, 2017, 2019) assume the lack of a case assigner throughout the derivation, Levin (2015) pursues a derivational approach in which the licenser is lost due to a *Distinctness* violation (Richards 2010). We will discuss each system in turn.

3.1 A parameter account (Erlewine et al. 2015, 2017, 2019)

The main empirical observation all accounts aim to capture is that the highest nominal projection of the agent in patient voice seems to require surface adjacency with the lexical verb. While Balinese generally displays free word order, agents in patient voice must be postverbal and linearly adjacent to the verb, recall the data set in section 2.2. Erlewine et al. (2019) derive these word order restrictions by assuming that abstract case is licensed by T and v, yet Balinese patient voice is defective, so that only T acts as a licenser.[4] An additional assumption ensures that T licenses the patient and not the agent: The patient voice head is equipped with an EPP-feature, attracting the patient to an outer specifier, thereby making it the closest target for licensing with T, shown in (11). Since the agent is not licensed by a case assigner, it can only get case-licensed post-syntactically. They follow Levin (2015) in classifying this operation as local dislocation –

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[4] Erlewine et al. (2015, 2017) take C to be the single case licenser.

a type of adjunction which is only licit between two elements if they are linearly adjacent (Embick and Noyer 2001), see (12) where • encodes immediate precedence.

(11) *Patient voice in Balinese*   (Erlewine et al. 2019)

(12) *Local dislocation of the highest nominal head in Balinese*   (Levin 2015: 104)

$[_{T^o} \text{T+..+V}] \bullet [_{DP} D^o(\bullet NP)] \rightarrow [_{T^o} \text{T+..+V+D}]$

The ban on displacement, shown in (8), and intervention of adverbs (9-b) follow directly from the linear adjacency requirement. In order to derive the class of nominals which are licensed as in situ agents, Erlewine et al. (2015, 2017, 2019) note a distributional constraint, again adopted from Levin (2015), which in turn is based on a theory of extended projections.[5]

(13) *Highest nominal head constraint*   (Levin 2015: 47)

The highest overt head in the extended nominal projection, whatever it is, must be linearly adjacent to the verb.

They treat weak quantifiers like adjectives, presumably because they can occur pre- or post-nominally. Thus, a prenominal weak quantifier is blocked in (9-a) since N as the highest overt head is not linearly adjacent to V. Definite agents in (7-a) are not licensed since the highest nominal head, in this case D, is not adjacent to V due to NPs interference. Pronouns and proper names in (7-c) are analyzed as (monovalent) D heads, thereby obeying linear adjacency. Finally, indefinites are licensed because they constitute NPs by assumption.[6] Crucially, the analysis cannot account for illicit NP drop in (10-b) since the absence of an overt N head is orthogonal to (13) and thus is not excluded by it. In addition to the possibility of post-syntactic case licensing, the theory relies on the assumptions that the patient voice head is not a case licenser and comes with an EPP feature, that verbs can c-select DP as well as NP arguments, and the constraint in (13).

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[5]Levin (2015: 114-117) argues that case licensing is a subcase of the requirement that all categories must be part of a complete extended projection, which is KP for the nominal domain, see also (14) in the next section. For Erlewine et al. (2015, 2017, 2019), case-valued DPs serve as a complete nominal projection. Under the assumption that adjunction creates neutral categories, nominal arguments can become part of the verbal projection via local dislocation of the highest nominal head to V.

[6]Levin (2015), however, argues that indefinites come with an empty D head which is invisible to the application of local dislocation, thereby making N the highest overt head adjacent to V.

3.2 A derivational approach (Levin 2015)

The original proposal of post-syntactic case licensing is put forward in Levin (2015) and provides a uniform analysis for pseudo-incorporation processes found in Sakha, Tamil, and Niuean on the one hand as well as for in situ agents in Balinese and Malagasy on the other. In contrast to Erlewine et al. (2015, 2017, 2019), Levin (2015) situates the case licenser on the argument itself in form of a K head. If noun phrases are smaller than a KP, say a DP or an NP, then the head of the highest nominal projection must get licensed by forming a complex head with the lexical verb via post-syntactic local dislocation. This step obviates the case filter (14) since the nominal becomes part of the verbal projection. Non-KP nominals have to be linearly adjacent to V, as this is the only configuration where local dislocation is permitted.

(14)   *Levin's case filter and structure of the noun phrase*   (Levin 2015: 46,28)

      a.   Noun phrases must be KPs.

      b.   [$_{KP}$ K [$_{DP}$ D NP]]

The advantage of this account over the one presented in the previous section is that it dispenses with the assumption that languages like Balinese may have defective voice heads which cannot act as licensers. Instead, certain syntactic constellations can lead to the loss of a KP-shell. Hence, the need for post-syntactic licensing arises in the course of the derivation. Levin proposes that reduction to DP-size for in situ agents in Balinese is triggered by a *Distinctness* violation of the form <KP,KP>, established by moving the patient to an outer specifier of vP due to EPP. Following Richards (2010), this requirement on syntactic structures prohibits the occurence of identical categories too close to each other.
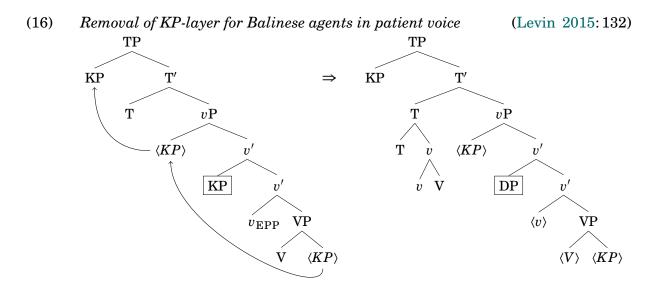
(15)   *Distinctness*   (Richards 2010: 5)

      If a linearization statement $< \alpha, \alpha >$ is generated, the derivation crashes.

Although Levin does not formalize the operation, he proposes that a distinctness violation is remedied by removing the agent's KP-layer (Levin 2015: 132), compare the boxed nodes in (16). The DP status requires agents to stay merged in their in situ positions so that they can get case-licensed by local dislocation on PF.[7]

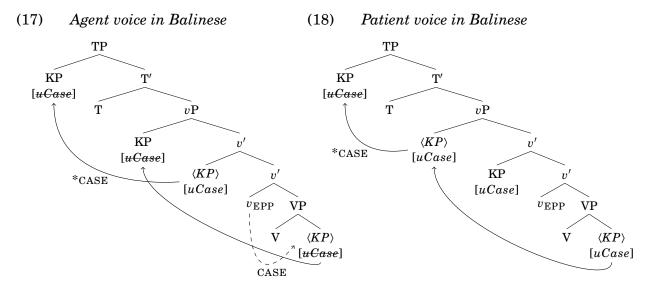[7]The EPP-feature on v is not special to patient voice, as agent voice also promotes the patient to an outer specifier of vP.

(16)   *Removal of KP-layer for Balinese agents in patient voice*   (Levin 2015: 132)

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           TP                                    TP
          /  \                      ⇒          /   \
        KP    T'                            KP      T'
         ↑   /  \                               /      \
            T    vP                            T        vP
              /      \                        / \      /   \
          ⟨KP⟩        v'                     T   v  ⟨KP⟩     v'
            ↑        /  \                        / \        /   \
         ┌────┐     /    \                      v   V    ┌────┐   v'
         │ KP │    v'                                    │ DP │  /  \
         └────┘   /  \                                   └────┘ ⟨v⟩   VP
              v_EPP   VP                                            /    \
                     /  \                                        ⟨V⟩    ⟨KP⟩
                    V   ⟨KP⟩
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Apart from the fact that the derivational approach encounters the same issue when faced with the restriction on NP-drop in (10-b),[8] Levin's analysis faces two additional problems with respect to post-syntactic removal of KP-layers. Contra Richards (2010: 7), Levin posits that unpronounced lower "copies are relevant to Distinctness" (Levin 2015: 138). The relevant environment for Distinctness must be spec,*v*P and cannot be the entire phase domain, which could compute Distinctness on overt copies only. This is necessary to derive the lack of restrictions on agent voice pivots, as KP-removal in this case applies to the unpronounced lower copy of the agent in order to satisfy distinctness. The relevance of lower copies is unexpected for a constraint that was originally motivated to avoid contradictory linearization statements. In most accounts of lower copy deletion (Bobaljik 1995, Brody 1995), hierarchical structure is a necessary ingredient to distinguish lower from higher copies. Nunes (2004: 27) explicitly argues that movement chains are reduced to the highest copy in order to avoid contradictory linearization statements. This makes it unclear how lower copies can enter linearization statements to begin with and cause distinctness violations. Moreover, lower copies cannot be visible at the point when local dislocation applies, as the intermediate copy would count as an intervener between the in situ agent and V in (16). Consequently, Levin must assume that lower copies are visible for some PF operations but not for others. Note that these are additional assumptions that are needed apart from Structure Removal. This contrasts with the approach put forward in this paper, where no reference is made to any additional post-syntactic PF-operations.

The second issue concerns the argument choice. It seems coincidental that it has to be the agent whose KP-shell gets removed. Levin (2015: 140-142) addresses this issue and suggests two solutions: (i) KP-shell deletion targets the argument whose case value is not valued or (ii) KP-shell deletion always targets the argument merged in the highest base position, i.e. the inner specifier of *v*P. While (i) has the potential to receive independent motivation since it avoids unvalued case features, (ii) is a stipulation that cannot be made to follow from anything else in the system. In order to investigate solution (i), we

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[8]Recall from footnote 6 that Levin postulates zero D heads for indefinite arguments which are ignored by local dislocation. Weakly quantified arguments can be analyzed with the same empty D head. This structure, however, does not prevent NP drop from taking place since the complete absence of overt heads in the nominal projection does not violate (13).

have to take a closer look at the case system. Since Levin (2015) does not spell out the case assignment system in Balinese, we turn to Levin (2014) where an analysis of the Balinese asymmetric voice system is provided, crucially making use of the assumption that the patient voice head does not assign case to the internal argument, which thus remains an active goal and thereby undergoes case assignment by T and movement to spec,TP. In contrast, the agent voice head assigns case to the internal argument and although it moves to spec,vP (due to EPP), it is not active anymore, thus allowing T to skip the patient and assign case to the agent, accompanied by attraction to its specifier. The two derivations are given in (17) and (18), following Levin (2014: 297-299).[9]

(17)   *Agent voice in Balinese*   (18)   *Patient voice in Balinese*

Important for the analysis of patient voice in Levin (2014) is that the agent's and the patient's case features are unvalued in spec,vP but since the patient is re-merged higher, it serves as the goal for case assignment and attraction to spec,TP, effectively deriving the pivot properties of patients in patient voice. Crucially, this assumption is incompatible with solution (i). Since both external and internal argument are unvalued for case, there is no reason to pick one KP over another to circumvent Distinctness. This leaves us with option (ii) – a specific assumption about the type of argument that must undergo KP-shell deletion, which needs to be hard-wired into the system. Note that this assumption is also crucial in predicting the lack of adjacency effects in agent voice, as it is here the lower agent copy whose KP-shell is deleted with no consequences for overt syntax (Levin 2015: 139).

Let us take stock and summarize the assumptions needed under Levin's (2015) original proposal. In addition to the option of post-syntactic case licensing and the constraint in (13), KP-shell removal must always target the argument merged in the highest base position. Moreover, the restricion on NP drop in (10-b) is not accounted for, forcing us to assume that restrictor nouns must always be spelled out in patient voice agents, see also the discussion in section 4.3. For the rest of the paper, we will develop an idea that makes Levin's trigger for surface adjacency, i.e. removal of a nominal shell, the main component

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[9]Treating case assignment by T and movement to spec,TP as two separate operations where the former precedes the latter, as suggested by Levin (2014: 289), would not be able to derive the asymmetry of the voice system. If case assignment were to apply as an independent operation, there would be no way to exclude the possibility in (17) for case to get assigned to the agent, while the patient gets attracted to spec,TP, ultimately resulting in unattested OVS clauses with agent voice morphology.

of the analysis. We dispense with Distinctness and encode structure removal via a feature on the patient voice head. Thus, no effects are expected in agent voice clauses. In situ properties of the agent in patient voice fall out from removal of a DP-layer, hence no reference to post-syntactic case licensing under linear adjacency with V is needed. In fact, our proposal derives the Balinese facts without making reference to any present case system. The choice of targeting the agent over the patient for structure removal follows from locality considerations, without the need for an EPP-feature.

4   Patient voice in situ agents via structure removal

Structure removal is formalized in Müller (2017) as an operation that removes structure within a syntactic derivation, triggered by designated [–F–] features on syntactic heads, either in the form of phrasal removal features [–F$_2$–] or head removal features [–F$_0$–]. We derive the properties of Balinese patient voice agents by assigning [–D$_0$–] to patient voice heads. Note that Levin (2015) also makes use of a structure removal operation, but as a last-resort solution, in reaction to a Distinctness violation. This contrasts sharply with our implementation as a syntactic operation to which we tie syntactic consequences such as the ban on dislocation. We will follow Müller (2009, 2010, 2011) in assuming that features on heads are ordered, thus enabling heads to be able to merge with an argument and later remove part of the argument.
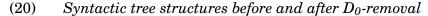
Although structure removal is a relatively recent idea, it has proven fruitful for a number of phenomena such as German complex prefields (Müller 2018) and passives (Müller 2019), tough-movement in English and German (Schwarzer 2016), restructuring in Russian (Dschaak 2017), and *pro*-drop in Breton (Weisser 2019), among many others. Similar ideas have been pursued under the name of Exfoliation (Pesetsky 2016, Stojković 2019) and Tree Pruning (Ross 1967, Embick 2010).
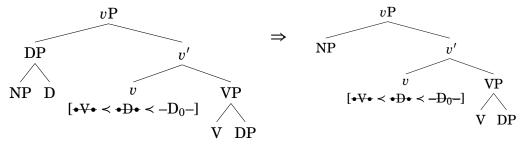
4.1   Structure removal of D

We claim that the Balinese data can be derived straightforwardly under the assumption that patient v heads bear a [$-$D$_0-$] feature which removes the DP shell of their first merged specifiers. This naturally leads to a neutralization of definite and indefinite agents in patient voice since the distinction between them is overtly encoded by the D head. The ban on definite agents in patient voice clauses, as shown in (7-a), is thus only apparent since they are permitted in principle but exhibit a *short life cycle*, i.e. they are only accessible to other operations within a narrow time window of the derivation.

We illustrate our proposal in (20). For the derivation of a patient voice sentence, a vP is built by first merging a patient v head with VP, followed by merging a DP in the specifier of vP. Each operation is triggered by a categorial structure building feature which we notate as [•X•]. The next feature on v's feature stack is the removal feature [–D$_0$–]. Removing the DP shell of a head's specifier is a strictly local application, no other D head can be found in a sufficiently local domain. This operation only applies to patient voice constructions since only patient v heads bear a removal feature. Other v heads do not bear such a feature. We make this assumtion explicit in (19).

(19)   *Feature stacks for voice heads*

    a. $v_{\text{patient voice}}$ [•V• < •D• < –D_0–]

    b. $v_{\text{agent voice}}$ [•V• < •D•]

(20)   *Syntactic tree structures before and after D_0-removal*

Crucially, the remove feature can only be discharged by removing the D head of the *external* argument. This is ensured by the *Strict Cycle Condition* (Chomsky 1973), given in (21). Removing the D head of the internal argument violates (21) since syntactic operations cannot affect a proper subdomain of the vP. In other words, the D head to be removed in that operation is inside the VP which is itself contained by the maximal projection at that point, i.e. the vP. Removing the D head of the external argument, on the other hand, is licensed since the specifier is not contained by any other XP but the vP, which is the highest phrase at that point in the derivation.

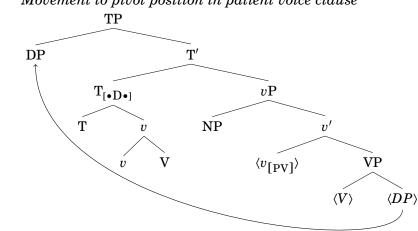(21)   *Strict Cycle Condition*   (Müller 2017)

       Within the current XP α, a syntactic operation may not exclusively target some item δ in the domain of another XP β if β is in the domain of α.

Interestingly, this approach captures the intuitive similarity between a regular passive voice and Balinese patient voice. Müller (2019, 2017) derives the German passive by [–D_2–] on v, triggering structure removal of a whole phrase, i.e. a DP. The difference can thus be reduced to removal features on v heads. In both cases, the external argument is demoted and, thus, less prominent syntactically. For patient voice, this is manifested as a restriction on possible argument types and a ban on movement. For regular passive, the external argument is completely banned from its base position. It should be noted, that Balinese additionally has a regular passive voice with its own dedicated morphology. This is expected in our approach, as it reflects the presence of another voice head bearing a [–D_2–] feature, thereby exactly mirroring Müller's approach.[10]

    One of the advantages of our proposal is a simplification of the movement operation to pivot position within the Balinese voice system. Pivot properties in Austronesian voice systems have been proposed to follow, among other ideas, by base generating the pivot in pivot position with a co-indexed empty operator in the argument position (Pearson 2005), or by moving the pivot from argument position to the phase edge of vP over potential non-

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[10]The definiteness restriction does not hold for arguments under causatives, applicatives, and intransitives (Udayana 2012, 2013: 58). This is expected in our approach since different v heads can bear different feature specifications. Since functional sequences are established by feature-driven Merge, a v head involved in a ditransitive structure for example must select for ApplP (Marantz 1993, Bruening 2010) instead of VP, thereby constituting a feature bundle that might as well not include a structure removal feature. Hence, agents can be DPs.

pivots, thereby making it accessible for further movement into pivot position (Rackowski 2002, Aldridge 2004, Rackowski and Richards 2005, van Urk 2015). In contrast, we derive the pivot vs. non-pivot asymmetry via a categorial DP/NP distinction. DP-movement is often argued to be derived by a categorial feature [•D•], be it for scrambling generally or for EPP-movement and object shift specifically (Chomsky 1995, Kitahara 1997, Epstein et al. 1998). In our account, the agent has lost its DP shell, therefore only one argument DP is left. Hence, the patient DP can easily be targeted for movement to spec,TP bypassing the agent NP. Movement into pivot position is schematically shown in (22), which constitutes the underlying structure for (1-a). We assume with Levin (2015:104) that head movement of V via v to T ensures that the verb precedes the in situ agent. DP-movement requires a DP, but at the point where the movement-inducing feature enters the derivation, the highest accessible argument, i.e. the in situ agent, is not a DP anymore. There are two possibilities to explain the dislocated structures in (8). Either topicalization/extraposition is triggered in the same fashion as movement to pivot position or the operations are triggered by a category neutral feature which nevertheless targets the closest argument, which again is the pivot in (22).

(22)   *Movement to pivot position in patient voice clause*

Let us now turn to the definiteness effect, shown in (7). We claim that the presence of $[-D_0-]$ on the patient voice head leads to neutralization of definite and indefinite agents. Under the assumption that definiteness is encoded as the morphosyntactic feature [±def] on D, this feature is deleted within agents of patient voice heads. As shown in (23), deletion of the D head including the [±def] feature neutralizes the definiteness distinction such that the structure and featural content of a definite and an indefinite DP become identical. We assume that this neutralization always leads to an indefinite interpretation, see section 4.2 for more details. Removal of D and subsequent neutralization explains why (i) definite noun phrases can never occur as non-pivots in patient voice (7-a) and (ii) indefinite nominals are licensed (7-b).

(23)   *Neutralization of definite and indefinite agents in patient voice constructions*

   a.   Definite agents
        $[_{vP}$ $\boxed{[_{DP}\textbf{ NP D}_{[\textbf{+def}]}]}$ $[_{v'}$ $v_{[-D_0-]}$ VP$]] \Rightarrow [_{vP}$ $\boxed{\textbf{NP}}$ $[_{v'}$ $v_{[-\cancel{D_0}-]}$ VP$]]$

   b.   Indefinite agents
        $[_{vP}$ $\boxed{[_{DP}\textbf{ NP D}_{[\textbf{-def}]}]}$ $[_{v'}$ $v_{[-D_0-]}$ VP$]] \Rightarrow [_{vP}$ $\boxed{\textbf{NP}}$ $[_{v'}$ $v_{[-\cancel{D_0}-]}$ VP$]]$

In order to extend the analysis to proper names and pronouns, we follow Abney (1987), Szabolcsi (1987), Longobardi (1994), and many others in assuming that all arguments constitute DPs. In line with Longobardi (1994:650), we treat determiners co-occuring with proper names as "expletive" articles, suggesting that they do not contribute semantic content. These D heads are different from the D heads shown in (23), in that they do not change the type of the embedded NP and can be spelled out as zero. Supporting evidence for the presence of D comes from Udayana (2013) who shows that proper names and pronouns can optionally co-occur with *ento*/*ene* (24-a), but not as agents in patient voice (24-b). Hence, proper names and pronouns behave identically, in that they can be accompanied by the determiner *ento*/*ene*, whose spell out is optional and its meaning expletive. Structure removal derivations are given in (25) for proper names and pronouns, respectively.[11]

(24)   *Evidence for proper names and pronouns as DPs*   (Udayana 2013:56-57)

   a.   I   Made ento niman ia. / Cai ene nigtig I   Made.
        ART Made that AV.kiss 3   / 2.M this AV.club ART Made
        'That I Made kissed him/her.' / 'You (i.e. this man) clubbed I Made.'

   b.   *Ia diman I   Made ento. / *I   Made tigtig   cai ene.
        3 PV.kiss ART Made that / ART Made PV.club 2.M this
        'That I Made kissed him/her.' / 'You (i.e. this man) clubbed I Made.'

(25)   *Expletive D removal in patient voice constructions*

   a.   Proper names
        $[_{vP}$ $\boxed{[_{DP}\textbf{ NP D}]}$ $[_{v'}$ $v_{[-D_0-]}$ VP$]] \Rightarrow [_{vP}$ $\boxed{\textbf{NP}}$ $[_{v'}$ $v_{[-\cancel{D_0}-]}$ VP$]]$

   b.   Pronouns
        $[_{vP}$ $\boxed{[_{DP}\textbf{ }[_{\phi P}\textbf{ NP }\phi\textbf{] D}]}$ $[_{v'}$ $v_{[-D_0-]}$ VP$]] \Rightarrow [_{vP}$ $\boxed{[_{\phi P}\textbf{ NP }\phi]}$ $[_{v'}$ $v_{[-\cancel{D_0}-]}$ VP$]]$

The next section will spell out the semantic compositions necessary after structure removal.

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[11]We adopt an elaborate nominal structure for pronouns (Cardinaletti and Starke 1994, Ritter 1995, Déchaine and Wiltschko 2002). Balinese pronouns constitute full DPs, see (i). Importantly, ϕ-features are encoded below the D-layer by ϕP, so that removal of the D head leaves the ϕ-feature structure intact.

(i)   *Balinese pronouns* : $[_{DP}\,[_{\phi P}$ NP $\phi]$ D$]$

According to Arka (2003:166) and Arka and Dalrymple (2017:267), Balinese lacks plural pronouns, ϕ-features on pronouns include person and status. Gender can only be encoded on second person pronouns.

4.2 A-type shift as a semantic rescue operation

Let us first address contexts involving proper names and pronouns. As already hinted at in the previous section, the absence of the expletive D head does not affect the semantic interpretation for pronouns and proper names. Neither does its presence. We model expletive D as an identity function from entities to entities, given in (26). The removal operation in this case targets nodes which are semantically recoverable.

(26)   *Determiner for proper names*   (following Longobardi 1994:650)

$$\llbracket D \rrbracket = \lambda x_e [x]$$

Pronouns denote indices and proper names individuals. Hence, they both provide the right input for D. We sketch the semantic composition for the relevant removal contexts in (27). For the purpose of illustration, we adhere to a simple semantics, where V introduces the internal argument and v the external argument. As is apparent from the derivations in (27), structure removal can apply without any semantic consequences if in situ agents are pronouns or proper names as in (7-c).[12]

(27)   *Expletive D removal does not affect semantic composition*

    a.   Proper names
        $[_{vP} \boxed{[_{\textbf{DP}} \textbf{NP}_e \; \textbf{D}_{\langle e,e \rangle}]_e} \; [_{v'} \; v_{[-\text{D}_0-]} \; \text{VP}]_{\langle e,t \rangle}]_t \Rightarrow [_{vP} \boxed{\textbf{NP}_e} \; [_{v'} \; v_{[-\text{D}_0-]} \; \text{VP}]_{\langle e,t \rangle}]_t$

    b.   Pronouns
        $[_{vP} \boxed{[_{\textbf{DP}} \Phi\textbf{P}_e \; \textbf{D}_{\langle e,e \rangle}]_e} \; [_{v'} \; v_{[-\text{D}_0-]} \; \text{VP}]_{\langle e,t \rangle}]_t \Rightarrow [_{vP} \boxed{\Phi\textbf{P}_e} \; [_{v'} \; v_{[-\text{D}_0-]} \; \text{VP}]_{\langle e,t \rangle}]_t$

We now turn to the more interesting definite/indefinite cases. $D_{[+\text{def}]}$ and $D_{[-\text{def}]}$, in contrast to expletive D, are crucial in ensuring argumenthood. While the former constitutes a function from properties to individuals and is only defined for singleton properties, the latter takes a property as an argument and returns an existential quantifier. The denotations are given in (28).

(28)   *Definite and indefinite determiner*

    a. $\llbracket D_{[+\text{def}]} \rrbracket = \lambda P_{\langle e,t \rangle} : \exists!x[P(x)].\iota x[P(x)]$

    b. $\llbracket D_{[-\text{def}]} \rrbracket = \lambda Q_{\langle e,t \rangle} \lambda P_{\langle e,t \rangle}.\exists x[Q(x) \wedge P(x)]$

Both (28-a) and (28-b) output semantic objects directly composable with v'. Now let us consider the cases where structure removal takes place. Both $D_{[+\text{def}]}$ and $D_{[-\text{def}]}$ take NPs of type $\langle e,t \rangle$ as arguments. If these heads are removed, we end up with a semantic incompatibility between the NP agent and v'. We propose that the type clash can be avoided by a type shifting operation of the *A*-kind (Partee 1986), see (29). Together with *THE* and *BE*, (29) is argued to be a natural type shifting operation, often expected to be lexicalised across languages.

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[12]A semantic framework that makes reference to event variables (Kratzer 1996, 2000) is fully compatible with our approach. The interpretation of quantifiers has received different treatments in event semantics, ranging from obligatory QR out of the event domain (Landman 2000) to in situ approaches (Champollion 2015).

(29)   *A-type shift*   (Partee 1986: 358)

$$Q_{\langle e,t\rangle} \Rightarrow \lambda P_{\langle e,t\rangle}.\exists x[Q(x) \wedge P(x)]$$

Compare (29) to (28-b): The result of NP undergoing *A*-type shift is equivalent to the result of NP taken as an argument of $D_{[-\text{def}]}$. Thus, structure removal of $D_{[+\text{def}]}$ as well as $D_{[-\text{def}]}$ results in an indefinite interpretation. Proper names and pronouns do not have to type shift, as they are already of the right type to serve as an argument. The structure removal derivations for $DP_{[+\text{def}]}$ and $DP_{[-\text{def}]}$ agents are given in (30) and (31), respectively.

(30)   *Neutralization of definite agents in patient voice constructions*

    a. Merge of $DP_{[+\text{def}]}$:
       $[_{v\text{P}}\ \boxed{[_{\textbf{DP}}\ \textbf{NP}_{\langle e,t\rangle}\ \textbf{D}_{\langle\langle e,t\rangle,e\rangle}]_e}\ [_{v'}\ v_{[-\text{D}_0-]}\ \text{VP}]_{\langle e,t\rangle}]_t$

    b. Structure removal and *A*-type shift:
       $\Rightarrow [_{v\text{P}}\ \boxed{\textbf{NP}_{\langle e,t\rangle}}\ [_{v'}\ v_{[-\text{D}_0-]}\ \text{VP}]_{\langle e,t\rangle}]_t \Rightarrow [_{v\text{P}}\ \boxed{\textbf{NP}_{\langle\langle e,t\rangle,t\rangle}}\ [_{v'}\ v_{[-\text{D}_0-]}\ \text{VP}]_{\langle e,t\rangle}]_t$

(31)   *Neutralization of indefinite agents in patient voice constructions*

    a. Merge of $DP_{[-\text{def}]}$:
       $[_{v\text{P}}\ \boxed{[_{\textbf{DP}}\ \textbf{NP}_{\langle e,t\rangle}\ \textbf{D}_{\langle\langle e,t\rangle,\langle\langle e,t\rangle,t\rangle\rangle}]_{\langle\langle e,t\rangle,t\rangle}}\ [_{v'}\ v_{[-\text{D}_0-]}\ \text{VP}]_{\langle e,t\rangle}]_t$

    b. Structure removal and *A*-type shift:
       $\Rightarrow [_{v\text{P}}\ \boxed{\textbf{NP}_{\langle e,t\rangle}}\ [_{v'}\ v_{[-\text{D}_0-]}\ \text{VP}]_{\langle e,t\rangle}]_t \Rightarrow [_{v\text{P}}\ \boxed{\textbf{NP}_{\langle\langle e,t\rangle,t\rangle}}\ [_{v'}\ v_{[-\text{D}_0-]}\ \text{VP}]_{\langle e,t\rangle}]_t$

Since quantifiers can undergo QR, we expect in situ agents to take flexible scope with respect to other operators. This prediction is borne out. Levin (2015) reports for (32) that the indefinite can take scope above or below negation. Under the assumption that negation applies at the vP-level (Chung and Ladusaw 2004, Penka 2010), both readings are accounted for.[13]

(32)   Nyoman sing gugut cicing.   ∃¬, ¬∃
       Nyoman NEG PV.bite dog
       'A dog didn't bite Nyoman.'   (Levin 2015: 77)

One aspect we have not discussed so far concerns the availability of type shifting. If structure removal can trigger *A*-type shift to ensure successful semantic composition, why do we not find other type-shifts, e.g. *THE* or *iota*, which can also create arguments. These type shifts would result in definite interpretations of in situ agents, contrary to fact. We argue that they are not permitted due to Chierchia's *Blocking Principle* (1998). Chierchia proposes (33) in order to account for the fact that English bare arguments receive a kind and not a definite or indefinite interpretation, whereas Russian bare arguments allow for all three interpretations. In contrast to Russian, English exhibits overt lexical entries in the form of *the* and *a/an*. Following (33), overt lexicalised determiners win over covert type shift operations. We can paraphrase the Blocking Principle along the lines of *Don't*

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[13]Flexible scope properties also exclude an alternative repair operation for NP agents after structure removal, i.e. one that assumes NPs to combine with v' via *Predicate Modification* with subsequent existential closure at the vP-level. This approach would predict obligatory low scope of in situ agents in patient voice constructions, contrary to fact.

do covertly what you can do overtly.

(33) *Blocking Principle* (Chierchia 1998: 360)

> For any type shifting operation τ and any X: $*\tau(X)$ if there is a determiner D such that for any set X in its domain, $D(X) = \tau(X)$.

Applied to the determiner system of Balinese, it becomes apparent why in situ agents can never be definite (unless they are pronouns or proper names). Any covert type shift that could create definite readings is blocked due the presence of the overt $D_{[+\mathrm{def}]}$ head. In other words, the presence of *ento* in the lexicon of Balinese blocks covert type shifting to a definite interpretation. Overt definiteness, on the other hand, is blocked in selected syntactic configurations due to the structure removal feature on the patient voice head.[14]

4.3 Adjacency effects and the restriction on NP drop

Finally, let us address the additional adjacency effects, pointed out in (9). Recall that Levin (2014, 2015) uses adverbial distribution, shown in (9-b), as one piece of evidence in favour of the surface adjacency requirement between the agent and the verb in patient voice. He argues that this intervention is related to the voice head, as there is no such ban observable for agent voice. The agent voice counterpart to (9-b) is given in (34) where an adverb is able to occur in immediate postverbal position (boldfaced).

(34) (Sanget-sanget) ia   (sanget-sanget) nepak **(sanget-sanget)** gamelan-e
      very-very   3SG very-very   AV.hit **very-very**   gamelan-DEF
      (sanget-sanget).
      very-very
      '(S)he was hitting the gamelan really hard.' (Wechsler and Arka 1998: 394)

Since we dispensed with the surface adjacency requirement, our theory overgenerates at this point. We account for the contrast between (34) and (9-b) by an assumption about the adjunction site of adverbs. An adverb in patient voice clauses can only appear in immediate postverbal position if it adjoins to vP. We claim that vP does not constitute a possible adjunction site.[15] In agent voice clauses, however, T attracts the agent and the patient stays in situ. This derivation leaves enough space for the adverb to occur between the verb and the patient, e.g. as an adjunct to VP. The two underlying structures are given in (35), including indicated pivot movement.

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[14]A reviewer asks if the availability of QR in (32) commits us to covert LF-movement, against the view of a *single output syntax* (Bobaljik 1995, 2002), since type-shift enables QR. The answer to this question depends on where type-shifts driven by the Blocking Principle take place. Since this principle relies on spell-out information, available type-shifting operations are not necessarily relevant only to LF. Further research is needed to settle this question.

[15]See also Sternefeld (1995) for a similar approach to Toba Batak. He assumes that adverbs in Toba Batak cannot adjoin to vP in order to explain their ordering properties. Vikner (1995) offers a similar explanation for Germanic word order facts in terms of adjunction constraints on adverbs.

(35)   *No adjunction to vP*

a.   *[_TP_ DP T-*v*-V [_vP_ [Adv] [_vP_ NP ⟨*v*⟩ [_VP_ ⟨*V*⟩ DP]]]]   (9-b)

b.   [_TP_ DP T-*v*-V [_vP_ DP ⟨*v*⟩ [_VP_ [Adv] [_VP_ ⟨*V*⟩ DP]]]]   (34)

While this assumption might seem stipulative, it draws an interesting parallel to the second type of adjacency effect, shown in (9-a), that blocks prenominal quantifiers in patient voice. Recall that Levin assumes weak quantifiers to be adjectives, which lets them adjoin to the left or to the right of the NP in (4). The former is blocked in patient voice since it prevents the NP from undergoing local dislocation with V. There are, however, two reasons to doubt the modifier analysis of prenominal quantifiers. One concerns the empirical observation that modifiers such as adjectives and PPs uniformly appear to the right of the noun phrase, as was shown in (2-a) and (2-b). Indeed, prenominal modifiers are illicit in Balinese, as the examples in (36) demonstrate. Quantifiers would, thus, constitute an exception in this regard.

(36)   *No prenominal modifiers within the nominal domain*

a.   *Uli   Badung dagang celeng meli   cicing, sawireh ia   nu   bajang.
       from Badung trader pig   AV.buy dog,   because 3SG still young
       'Pig traders from Badung buy a dog, because he is still young.'

b.   *Selem siap   ngugut anak   cenik.
       black chicken AV.bite person small
       'A black chicken bites a child.'   (Putu Indah Permata Sari, p.c.)

Another complication that arises with a nominal modifier analysis involves the fact that existential quantifiers can participate in quantifier float. Stranding the quantifier, as was shown in (6-a) and is sketched under a stranding analysis in (37), would require movement of the lower segment of an NP to which the quantifier adjoined, presumably violating minimality.

(37)   [_NP_ coconut] ... [_DP_ [_NP_ [_NP_ coconut] [many]] D]

In light of these problems, we adopt an adverbial analysis to quantifier float in Balinese (Bobaljik 1995, Doetjes 1997), where the quantifier does not directly quantify over the nominal but instead forms a constituent with *pro*, coindexed with the associated nominal. This constituent then adjoins and patterns in its distributional properties with other adverbs of the language. In particular, we assume that prenominal quantifiers can only result from adverbial quantification, either to TP or to VP. The structures for prenominal quantifiers in (4) and (5) are sketched in (38), again with indicated movement to pivot position.

(38)   *Adverbial quantifier float in Balinese*

a.   [_TP_ [_DP_ *pro_i* many] [_TP_ DP_i T-*v*-V [_vP_ DP_i ⟨*v*⟩ [_VP_ ⟨*V*⟩ DP]]]]   (4-a), (5)

b.   [_TP_ DP T-*v*-V [_vP_ DP ⟨*v*⟩ [_VP_ [_DP_ *pro_i* many] [_VP_ ⟨*V*⟩ DP_i]]]]   (4-b)

This analysis allows for other constituents to intervene between the floating quantifier and the associated DP, which is the case in (6-a)[16] and (6-b). Most importantly, prenominal quantifiers are disallowed for agents in patient voice clauses for the very same reason that adverbs generally are prohibited in this position, see (39). Hence, the adjacency effects pointed out in (9) both result from the same restriction, i.e. a ban on vP-adjunction.[17]

(39)   *$[_{\text{TP}}$ DP T-v-V $[_{v\text{P}}$ $[_{\text{DP}}$ pro_i many $]$ $[_{v\text{P}}$ NP$_i$ $\langle v \rangle$ $[_{\text{VP}}$ $\langle V \rangle$ DP $]]]]$ (9-a)

Finally, let us address the restriction on NP drop in (10-b). The present theory can account for this restriction by analyzing NP drop in (10) as NP-ellipsis. With Merchant (2001), we assume that ellipsis is triggered by an E-feature on a functional head, in the present case D, that results in elision of its complement. If ellipsis is a post-syntactic process, that is the E-feature on D intructs PF not to pronounce the restrictor NP (Merchant 2001), structure removal in syntax proper is predicted to bleed NP-ellipsis, thus accounting for (10-b). A bleeding interaction can also be modeled if NP-ellipsis takes place in syntax, for example as proposed by Aelbrecht (2011) who proposes that E-features have to be licensed by c-commanding functional heads resulting in rendering the ellipsis site opaque. If the licenser enters the derivation after $[-D_0-]$ became active, NP-ellipsis is again bled by structural removal. Note that NP-ellipsis cannot be modeled in the post-syntactic case licensing frameworks discussed in section 3, as the E-feature present on D/K heads would mark the entire NP for elision, including weak quantifiers, contrary to what we see in (10-a). Placing the E-feature on the adjoined weak quantifier instead predicts NP-ellipsis to be licit in (10-b), contrary to fact. Crucially, the current approach is able to generate weak quantifiers outside of the nominal domain in adverbial position, so that they are unaffected in (10-a), yet NP-ellipsis is blocked in (10-b) due to removal of D, and thereby the E-feature.

5   Conclusion

We have presented a structure removal approach for in situ agents in Balinese patient voice constructions. Removal of the DP shell through a $[-D_0-]$ feature on patient voice heads neutralizes the distinction between definites and indefinites, but leaves pronouns and proper names intact. Expletive D heads on pronouns and proper names are semantically vacuous, their removal does not influence the semantic derivation. Noun phrases,

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[16]In (6-a), an additional movement operation is taking place that lets the associate precede the floating quantifier. This, in fact, constitutes the common pattern of quantifier float cross-linguistically. Fitzpatrick (2006: 53) argues that cases where a floating quantifier precedes the associate instead provides compelling evidence against a stranding analysis. Hence, (6-b) as well as (4) and (5) support the account of adverbial quantification.

[17]A reviewer remarks that post-syntactic case licensing is superior to the present approach since it extends to *pseudo-noun incorporation* (PNI), as this is another phenomenon where structurally reduced nominals can only appear surface adjacent to verbs. There is, however, reason to doubt that surface adjacency is a requirement both within the PNI languages Levin (2015) considers as well as beyond the works of post-syntactic case lincensing. Focus adverbs have been shown to interrupt surface adjacency between caseless nouns and verbs in Tamil (Lehmann 1993: 112) and Turkish (Öztürk 2009: 337). Moreover, PNI-ed nominals can undergo intermediate scrambling in Turkish (Öztürk 2009: 339) as well as Hindi (Dayal 2011: 137), see also Driemel (2020a,b) for an overview. The present approach does not make any predictions wrt. to PNI.

whose DP shell has been removed, type-shift to an indefinite meaning. Type-shifting to a definite meaning is blocked since Balinese lexicalises an overt definite marker. Our approach can be extended to other voices in Austronesian, such as locative voice in Tagalog, by positing $[\bullet P_2 \bullet]$ and $[\text{-}P_0\text{-}]$ that will trigger Merger of a locative PP into spec,vP and subsequent removal of its P-head.

The main advantage of our proposal lies in its independence from any assumptions based on a present case system. Overcoming the problems pointed out with Levin's (2015) last-resort KP-removal operation, our implementation of structure removal is able to capture the definiteness effect as well as the non-pivot properties of patient voice agents with one single assumption. Whereas the argument choice is largely stipulated in Levin (2015) or achieved by postulating an EPP-feature (Erlewine et al. 2015, 2017, 2019), we make it follow from the Strict Cycle Condition. Additionally, the current approach allows for a straightforward explanation of why NP-ellipsis is banned with patient voice agents. We do not claim that Balinese does not have case. The properties of Balinese patient voice agents, however, do not necessitate an approach that makes reference to case, particularly not post-syntactic case via local dislocation with V. Finally, both the ban of immediately postverbal adverbs as well as prenominal modifiers on agents in patient voice clauses can be traced back to a general ban on vP adjunction in Balinese.

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