Animacy hierarchy and case/agreement in Okinawan

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Abstract. In languages like Japanese and Okinawan, morphological evidence for agreement is scarce, which has led to the long-standing controversy as to its existence. In this article, I argue that while ϕ-agreement is not morphologically realized on the predicates in Okinawan, it is nevertheless indirectly detectable in the form of animacy agreement in differential case-marking.

Keywords. case; agreement; animacy; differential case-marking; Agreement Parameter; Okinawan; Japanese; Old Japanese

1. Introduction. In generative syntax, case and agreement has often been taken to be two sides of the same coin (George & Kornfilt 1981, Chomsky 1981). Under agreement between a head X (probe) and its target (goal) YP in its specifier, ϕ-agreement manifests on X and YP has its case valued (Chomsky 1995, 2000, 2001).

Languages with rich agreement show direct support for such a relation. Classical Hebrew shows a full range of ϕ-feature agreement on the predicate as shown in examples (1).

(1)   Classical Hebrew 'X moves (something)'
      a.   *pro* t-aziz-∅ (2.M.SG)
      b.   *pro* t-aziz-i (2.F.SG)
      c.   *pro* t-aziz-u (2.M.PL)
      d.   *pro* t-aziz-na (2.F.PL)

In contrast, there are also languages with poor agreement. Japanese is one of the famous languages that lack morphological agreement altogether. As example (2) shows, the morphological form of the predicate does not change at all irrespective of the ϕ-features of the subject.

(2)   Japanese 'X moves (something)'
      a.   *pro* ugokasu. (1.SG/PL)
      b.   *pro* ugokasu. (2.SG/PL)
      c.   *pro* ugokasu. (3.SG/PL)

Rather, what is morphologically visible in Japanese (and not in English and Classical Hebrew) is *case*: in fact, case morphology is quite robust on nouns in Japanese. Example (3) shows nominative case *-ga*, accusative case *-o*, and genitive case *-no*.

(3)   Japanese
      Dare-*ga* Ken-*no* inu-*o*   mi-ta   no?
      who-NOM Ken-GEN dog-ACC see-PAST C
      'Who saw Ken's dog(s)?'

This "visible" asymmetry between English and Japanese has caused a huge controversy over the presence/absence of agreement (and mechanisms related to it) in Japanese (Fukui 1986,

Fukui & Sakai 2003, Kuroda 1988, Saito 2016; Watanabe 1996, Hiraiwa 2005, Miyagawa 2010). Fukui (1986) argued that Japanese, in contrast with English, lacks active functional categories (such as C, I/T, D) entirely and hence agreement. However, this very assumption of the absence of functional categories in Japanese is not uncontroversial.

Kuroda (1988) proposed what he called the *Agreement Parameter*. He argued that Japanese is a Non-Forced Agreement language, while English is a Forced Agreement language. By "Non-Forced Agreement", agreement was meant to be optional. Typological differences such as the presence/absence of abstract case-marking, scrambling, *wh*-movement follow from this parameter.

On the other hand, despite the visible differences between English and Japanese, Takezawa (1987) argued that structural nominative case in Japanese is assigned under *government* by finite T in the same way as in English. Ura (1996, 2000) argued that multiple nominatives in Japanese can be captured by a theory of multiple feature-checking (see also Hiraiwa 2001a, 2005). Miyagawa (2010) also argues that every language manifests agreement in some form and Japanese also has a system of focus-based agreement.

(4) Does agreement exist in Japanese?
  a. No: Fukui (1986), Fukui & Sakai (2003), etc.
  b. Optional: Kuroda (1988, 2007), etc.
  c. Yes: Takezawa (1987), Ura (1996, 2000), Hiraiwa (2001a, 2005), Miyagawa (2010), etc.

We need to be careful enough, though, because morphology is only a clue, but it is never decisive evidence. Turning our eyes to closely related languages, there is no morphological indication, as far as we can tell from the oldest sources available, that Old Japanese had an overt agreement system. Nevertheless, Kuroda (2007) argues that Old Japanese possessed an active system of agreement and that is why Old Japanese had obligatory abstract case-marking, *wh*/focus-movement, etc. If he is right, an important question arises with Okinawan, which has diverged from Old Japanese more than one thousand years ago It lacks morphological subject-agreement entirely, but does it mean that it lacks a syntactic agreement system?

It will be a significant question to ask, therefore, whether syntactic agreement is present in languages with poor morphology. More specifically, I will pursue the following research question.

(5) Is there any case in which "invisible" agreement can be detected albeit indirectly?

This article argues that a close look at case-marking patters in Okinawan provide positive evidence.[1] More specifically, I argue that case-marking morphology in Okinawan is determined by *animacy* agreement between the probe T and the goal DP.

2. Proposal: case and animacy.

2.1. Case-marking. Okinawan, like Japanese, agreement is entirely absent, but case marking is robust: the subject/possessor is marked with *-ga* or *-nu* and the object is zero-marked.

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[1] *Ryukyuan* is a name for the group of languages spoken in the greater Okinawa area (including various small islands). Among those, *Okinawan* is a language spoken in the mainland Okinawa and was once used as the official language of the Ryukyu Kingdom (see Miyara 2000, 2015, 2019). Many fluent speakers of Okinawan are over 70 years of age and the language is clearly endangered (see also papers in Takubo 2013).

(6)   Okinawan

   Taa-*ga*   Ken-*nu*   'ingwaa-∅ ncha   ga?
   who-NOM Ken-GEN dog(-ACC) see.PAST Q
   'Who saw Ken's dog?'

For the sake of clarity, I use the following terms. The subject DP of a clause receives *clausal case-marking* as a result of Agree (T, DP). In Okinawan, clausal case-marking sometimes manifests itself as nominative case *-ga* and sometimes as genitive case *-nu*. Similarly, the possessor of a nominal receives *nominal case-marking* as a result of Agree (n, DP). Nominal case-marking is realized as nominative case *-ga* in some cases and as *-nu* in other cases and yet in other cases as zero *-∅*.

     In Japanese, clausal case-marking and nominal case-marking are both quite straightforward. As examples (7) show, the subject is almost always marked with nominative case *-ga* (except in the case of so-called nominative-genitive conversion (Hiraiwa 2001b)). Similarly, any noun within a nominal is uniformly marked with genitive *-no*, as shown in examples (8).

(7)   Japanese (clausal case-marking = Nom (*-ga*))

   {Kare/Ken/Tegami/Dare/Nani}-*ga* kita   no?
   3SG/Ken/letter/who/what-NOM   arrived C
   'Did he/Ken/a letter arrived? / Who/What arrived?'

(8)   Japanese (nominal case-marking = Gen (*-no*))

   {kare/Ken/tegami/dare/nan(i)}-*no* e
   3SG/Ken/letter/who/what-GEN   picture
   'a picture of him/Ken/a letter/who/what'

On the other hand, clausal case-marking and nominal case-marking in Okinawan are much more complicated. As examples (9) show, two different cases, nominative *-ga* and genitive *-nu* are employed in clausal case-marking, depending on the types of NP that is case-marked. In the case of nominal case-marking, there are three different kinds of nominal case-marking: nominative *-ga*, genitive *-nu*, and ∅.

(9)   Okinawan (clausal case-marking = Nom (*-ga*), Gen (*-nu*))

   a.   {Taraa/Shinshii/Waa/Ari}-*ga* Miyara shinshii-nu sumuchi kootan.
         Tara/teacher/1SG/3SG-NOM   Miyara teacher-GEN book   bought
         'Tara/The teacher/I/He bought Prof. Miyara's book.'
   b.   Taa-*ga*   Miyara shinshii-nu sumuchi-∅ koota   ga?
         who-NOM Miyara teacher-GEN book(-ACC) bought Q
         'Who bought Prof. Miyara's book?'
   c.   Nuu-*nu*   'utitoo ga?
         what-GEN fallen   Q
         'What has fallen over there?'

(10)   Okinawan (nominal case-marking = Nom (*-ga*), Gen (*-nu*), zero ∅)

   waa-∅ ii   / ari-ga   ii   / Ken-nu ii
   1SG-∅ picture 3SG-NOM picture   Ken-GEN picture
   'my picture' 'his/her picture' 'Ken's picture'

The questions that I will address in this article below are the following.

(11) a. How are the different case-marking patterns (*ga*/*nu*/∅) in Okinawan explained?
      b. If Case is a reflex of agreement, are the different case-marking patterns related to agreement with ϕ-features? Or, are they just arbitrary choices, having nothing to do with ϕ-agreement?

2.2. ANIMACY-SENSITIVE ϕ-AGREEMENT. In this section, I propose a theory of case and agreement by which case morphology is sensitive to an animacy feature and different patterns of clausal and nominal case-marking are determined according to the Animacy Hierarchy.

(12) The Proposal
      In Okinawan, the valuation of Case under Agree ($X_{u\phi}$, DP_ϕ) is conditioned by animacy agreement in accordance with the Animacy Hierarchy.

In Okinawan, the ϕ-agreement between the probe X and the goal DP is sensitive to the feature [animacy]. What needs to be specified in the proposal in (12) is the last part: (i) how the feature [animacy] interacts with particular case morphology and (ii) what the Animacy Hierarchy is.

As noted in the previous section, three different cases are employed for clausal and nominal case-marking in Okinawan: nominative (*-ga*). genitive (*-nu*), and zero (∅). A rough generalization that first emerges is that three different cases do not freely alternate. Rather generally, zero-marking is the most restricted in the sense that it is only allowed in certain nominal case-marking. Nominative case-marking is second most restricted, and genitive case-marking seems to be the default option.[2]

(13) Okinawan
      a. Zero case-marking (∅) is the most restricted (only possible with nominal case-marking).
      b. Nominative case (*-ga*) is the second most restricted.
      c. Genitive case (*-nu*) covers the rest. (→ default case)

I propose that valuation of Case in Okinawan reflects animacy agreement under Agree ($X_{u\phi}$, DP_ϕ).

2.3. ANIMACY FEATURE AND THE ANIMACY HIERARCHY. The question what "animacy" exactly is is not an easy one to answer (Ritter 2013, Adger & Harbour 2007, among others). A number of studies have argued for the need for an animacy feature, in accordance with abundant evidence for animacy distinction in natural languages. Let us take a look at how "animacy" manifests itself in syntax. In addition to ϕ-features (person, number, gender), some languages (e.g. Algonquian) mark animacy on the verb.

(14) Passamaquoddy (Bruening 2001)
      a. '-*kosiciy*-a-l.
          3-know.TA-DIR-OBV
          'He/She knows him/her.'
      b. '-*kosicihtu*-n.
          3-know.TI-N

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[2] Nomura (1993) shows basically similar patterns hold in Old Japanese. See section 6.

'He/She knows it.'

Examples (14) show that the transitive verb agrees with the animacy of the direct object: the animate direct object DP and the inanimate direct object DP trigger the TA form and the TI form, respectively (see also Ritter 2013 on Blackfoot).

A similar phenomenon, albeit restricted, is also observed in Japanese. Verbs of existence *iru/aru* shows alternation depending on the animacy of the subject DP (Kinsui 2006). As examples (15) show, an animate subject DP requires the animate verb of existence *-iru* as in (15a), while an inanimate subject DP requires the inanimate verb of existence *-aru* as in (15b).

(15) Japanese

    a.   {Ken/Kare/Inu}-ga *iru/*aru*.
          Ken/3SG/dog-NOM exist.A/exist.I
          'Ken/He/A dog is there.'
    b.   {Ie/Omotya/Kuruma}-ga **iru/aru*.
          house/toy/car-NOM   exist.A/exist.I
          'A house/A toy/A car is there.'

What is striking about the animacy feature is the fact that it often works in the hierarchy. It has been observed that various phenomena in the languages of the world obey the following hierarchical order in animacy. This is called the *Animacy Hierarchy* (Smith-Stark 1974, Silverstein 1976, Hale 1973, Comrie 1989, Corbett 2000, among others).

(16)   *The Animacy Hierarchy*
      Speaker (First Person Pronouns) > Addressee (Second Person Pronouns) > Third Person > Kin > Human > Animate > Inanimate

Different languages make different distinctions (human vs. non-human, animal vs. non-animal, etc.), but basically, the hierarchy above seems to hold in a wide range of languages of the world. Corbett (2006) states "Animacy has a wide range of effects, varying in different languages ... it can be a condition on agreement ...". Comrie (1989) also argues that "the reason why animacy is of linguistic relevance is because essentially the same kinds of conceptual distinction are found to be of structural relevance across a wide range of languages".

human vs. non-human	Slave, Mayali
animate vs. inanimate	Marind, Mundari
kin vs. non-kin	Kobon, Kalkatungu, Maori
pronouns vs. non-pronouns	Warrgamay

Table 1. Variation in cut-off points in the animacy hierarchy (adapted from Corbett 2000)

In Japanese, the optional plural suffix *-tati* is sensitive to animacy of an NP. It is only compatible with those higher in the hierarchy, that is, [+human] NPs (see Nakanishi & Tomioka 2004).

(17) Japanese
    gakusee-tachi / *hon-tachi
    student-PL   book-PL
    'students' 'books'

Furthermore, grammatical number distinction (singular/plural) with *-tachi* is morphologically obligatory with the pronominal system, but it is only so with human personal pronouns, which are the first three elements in the hierarchy.

(18) Japanese
watashi(-tachi) / anata(-tachi) / kare(-tachi) / sore(-{*tachi/-ra})
1SG-PL   2SG-PL   3SG-PL   3SG-PL
'I/we' 'you (singlar)/you (plural)' 'he/they (human)' 'it/they (non-human)'

In the next section, I will argue that clausal case-marking and nominal case-marking show different animacy effects according to the Animacy Hierarchy.

3. Differential case-marking in Okinawan.

3.1. CLAUSAL CASE-MARKING AND ANIMACY. I propose that clausal case-marking in Okinawan is sensitive to the animacy features of the subject DP. More specifically, ϕ-agreement between T_ϕ and DP_ϕ results in nominative case valuation if the latter has a [+animate/+human] feature. If not, it results in genitive case valuation.[3]

(19) Clausal case-marking in Okinawan
    a.   Agree ($T_{[u\phi,animate]}$, $DP_{[\phi,animate,Case]}$) $\rightarrow$ nominative *-ga*
    b.   Agree ($T_{[u\phi]}$, $DP_{[\phi,Case]}$) $\rightarrow$ genitive *-nu*

Assuming that ϕ-features are inherited from C and an animacy feature is located on T, the probe T has both ϕ-features and a privative animacy feature. This agree relation results in nominative case valuation. If the privative animacy feature is missing on T and DP, then it results in genitive case valuation.

1/2Sg/1/2Pl	3Sg/Pl$_{+wh,+human}$	3Pl$_{+human}$	Dem/3Sg/Pl$_{+human}$	kinship $_{+human}$	NP$_{+human}$
ga	ga	ga	ga	ga	ga/nu
NP$_{-human,+animate}$	Dem/3Sg	3Sg$_{+wh,-human}$	NP$_{-human,-animate}$		
nu(/ga)	nu	nu	nu(/ga)		

Table 2. Clausal case-marking in Okinawan

The first/second/third person animate pronouns all require nominative case *-ga*. What is important here is the fact that the third person inanimate pronouns also require nominative case *-ga*.

(20) Okinawan
{Waa/'Yaa/Ari}-{ga/*nu/*∅} Miyara shinshii-nu sumuchi kootan.
1SG/2SG/3SG-NOM/GEN/∅   Miyara teacher-GEN book   bought
'I/You/He bought a book by Prof. Miyara.'

Kinship terms, which are [+human], require nominative case *-ga*, too.

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[3] Virtually all of the Ryukyuan languages show differential subject marking phenomena, but each of them show different patterns. For some brief descriptive studies in various Ryukyuan languages/dialects, see Uchima & Arakaki (2000), Uchima (2011) and Shimoji & Pellard (2011). To the best of my knowledge, no work has been done under a generative framework. See also Iwasaki (2015).

(21) Okinawan

{Shiizya/'Uttu}-{ga/*nu/*∅}　　　Miyara shinshii-nu sumuchi kootan.
old.brother/young.brother-NOM/GEN/∅ Miyara teacher-GEN book　　bought
'My older brother/younger brother bought a book by Prof. Miyara.'

Interrogative pronouns requires nominative case *-ga* when they are [+human, +wh], while they require genitive case *-nu* when they are [-human, +wh].

(22) Okinawan

Taa-{ga/*nu/*∅} Miyara shinshii-nu sumuchi koota　ga?
who-NOM/GEN/∅　Miyara teacher-GEN book　　bought Q
'Who bought a book by Prof. Miyara?'

(23) Okinawan

Nuu-{*ga/nu/*∅} 'utitoo ga?
what-NOM/GEN/∅　fallen　Q
'What is over there?'

Nouns and proper nouns receive nominative case *ga* when they are [+human, +animate], while genitive case *-nu* is also possible.

(24) Okinawan

a.　Shinshii-{ga/nu/*∅} Miyara shinshii-nu sumuchi kootan.
　　teacher-NOM/GEN/∅　Miyara teacher-GEN book　　bought
　　'A/The teacher bought Prof. Miyara's book.'

b.　Taraa-{ga/nu/*∅} Miyara shinshii-nu sumuchi kootan.
　　Tara-NOM/GEN/∅　Miyara teacher-GEN book　　bought
　　'Tara bought Prof. Miyara's book.'

In contrast, nouns and proper nouns receive genitive case *-nu* when they are[-human, +animate]. In this case, genitive case *-nu* is clearly well-formed and preferred, but nominative case *-ga* is not impossible. This ambivalence is likely to be due to an interpretation of the privative feature [animate]. If it is interpreted as "human", a cat is [-human] and hence receives genitive case *-nu*. However, if it is interpreted as "animate", the noun phrase *cat* receives nominative case *-ga*, as a cat is [+animate].[4]

(25) Okinawan

Mayaa-{?ga/nu/*∅} 'yaa-nu　　　wii-uti ashidoon.
cat-NOM/GEN/∅　　house.roof-GEN top-at　playing
'A cat is playing on the top of the roof.'

(26) Okinawan

Miyara shinshii-nu sumuchi-{?ga/nu/*∅} 'utitoon.
Miyara teacher-GEN book-NOM/GEN/∅　　　fallen
'There's a book by Prof. Miyara over there.'

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[4] The apparent optionality of *ga/nu* will be set aside here. One factor may be the ambivalence of the interpretation of [animacy]. Another possible factor is an influence form the Standard Japanese, which uniformly uses nominative case *-ga* for all subjects.

In summary, clausal case-marking is sensitive to the animacy of the subject DP: the cut-off point between *-ga* and *-nu* is {[±human/animate]}.

3.2. Nominal case-marking and animacy. Nominal case-marking is slightly more complex: the [+pronominal, +human] feature generally requires zero-maring; for demonstratives, the [+human/animate] feature selects *-ga* and the [-human/animate] feature *-nu*; for kinship terms, being [+human/animate], both *-ga* and *-nu* are possible; for all the others, the default *-nu* is required.

1/2 Sg/Pl	3Sg/Pl$_{+wh,+human}$	3Pl$_{+human}$	dem/3Sg$_{+human}$	kinship $_{+human}$	NP$_{+human}$
∅	∅	∅	ga	∅	nu
NP$_{-human,+animate}$	dem/3Sg$_{-human}$	3Sg$_{+wh,-human}$	NP$_{-human,-animate}$		
nu	nu	nu	nu		

Nominal case-marking differs from clausal case-marking in that it is sensitive to the categorial feature [±pronominal] in addition to the animacy feature [±human/animate].

(27) Nominal case-marking in Okinawan
  a. Personal pronouns$_{[+pronominal,+human/animate]}$: zero (∅)
  b. Demonstratives$_{[+human/animate]}$: nominative (*-ga*)
  c. Demonstratives$_{[-human/animate]}$: genitive (*-no*)
  d. Kinship$_{[+human/animate]}$: nominative/genitive (*-ga/no*)
  e. Other NPs$_{[±human/animate]}$: genitive (*-no*)

The first and second person pronouns are [+human] (*local* possessors in Adger & Harbour 2007) and require zero case-marking.[5]

(28) Okinawan
waa/'yaa-{*ga/*nu/∅} ii
1sg/2sg-nom/gen/∅   picture
'my/your picture'

Their plural counterparts also require zero case-marking.

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[5] Another second person form *'unzyu* takes nominative or genitive case (while my informant noted that the use of genitive case sounds colloquial). This indicates that this form is more like a noun rather than a pronoun, which makes sense given that it originates from 'your' and 'body' and its use is honorific.

(i) Okinawan
'unzyu-{ga/nu/*∅} ii
2sg-nom/gen/∅   picture
'your picture' (honorific)

The second person pronoun in English also behave unexpectedly and pattern with NPs in that it does not differentiate number and case morphologically.

(ii) a. I/me (1sg), we/us (1pl)
  b. he/him (3sg), they/them (3pl)
  c. you/you (2sg), you/you (2pl)
  d. a book (sg)/book-s (pl)

(29) Okinawan
    wa-ttaa/'yi-ttaa-{*ga/*nu/Ø} ii
    1SG/2SG-NOM/GEN/Ø   picture
    'my/your picture'

Morphological evidence indicates that the third person forma are demonstratives, rather than pronouns (i.e. {*ku/u/a*}-*ri*). These [+human] demonstratives receive nominative case -*ga* (see also *ko-re* 'this', *so-re* 'that', *a-re* 'that', *ka-re* 'him' in Japanese).

(30) Okinawan
    kuri/uri/ari-{ga/*nu/*Ø}   ii
    this.person/that.person/that.person-NOM/GEN/Ø picture
    'a picture of this person/that person/him'

Third person pronouns receives genitive case -*nu* when they are [-human/animate]. Note that the [-human/animate] forms lack -*ri*.

(31) Okinawan
    ku/u/a-{*ga/nu/*Ø}   ii
    this/that/that-NOM/GEN/Ø picture
    'this/that picture'

Interrogative pronouns pattern with the first and the second person pronouns: when they are [+human, +wh], they receive zero case-marking.

(32) Okinawan
    taa-{*ga/*nu/Ø} ii
    who-NOM/GEN/Ø picture
    'whose picture'

On the other hand, they receive genitive case -*nu* when they are [-human, +wh].

(33) Okinawan
    nuu/maa-{*ga/nu/*Ø}   ii
    what/where-NOM/GEN/Ø picture
    'a picture of what/where'

Thus, interrogative pronouns do not appear to be uniform. The human interrogative pronoun *taa* 'who' behaves as a pronoun, while the others (e.g. *nuu* 'what' and *maa* 'where') behave as a regular NP.

Kinship terms, which are necessarily [+human], receives zero case-marking, while some kinship terms such as *shiizya* and *'uttu* require genitive case -*nu*.[6]

(34) Okinawan
    a. suu-{*ga/*nu/Ø} ii
        father-NOM/GEN/Ø picture
        'a picture of my father'

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[6] The reason for the split is still under investigation. My informant noted that sisters and brothers can be plural, but the other kinship terms refer to singular.

b. 'anmaa-{*ga/*nu/∅} ii
       mother-NOM/GEN/∅   picture
       'a picture of my mother'

(35) Okinawan
    a. shiizya-{*ga/nu/*∅} ii
       brother-NOM/GEN/∅   picture
       'a picture of my older brother'
    b. 'uttu-{*ga/nu/*∅} ii
       brother-NOM/GEN/∅ picture
       'a picture of my younger brother'

Ordinary nouns and proper nouns receives genitive case *-nu*.[7]

(36) Okinawan
    a. Taraa-{*ga/nu/∅} ii
       Tara-NOM/GEN/∅   picture
       'Tara's picture'
    b. shinshii-{*ga/nu/∅} ii
       teacher-NOM/GEN/∅   picture
       'my teacher's picture'

(37) Okinawan
    mayaa-{*ga/nu/∅} ii
    cat-NOM/GEN/∅   picture
    'a picture of a cat'

(38) Okinawan
    naabeeraa/kuruma-{*ga/nu/∅} ii
    loofah/car-NOM/GEN/∅   picture
    'a picture of a loofah/a car'

4. Animacy and noun class. If our analysis is correct, it follows that an animacy feature must be present in Okinawan, somewhere in the DP spine in syntax. A tentative hypothesis that I propose here is that animacy manifests itself in the form of final-vowel lengthening

A number of animate nouns end with a lengthened vowel.

(39) Okinawan
    a. Taraa 'Tara' (person's name)
    b. Maziruu 'Maziru' (person's name)
    c. 'anmaa 'mother'
    d. suu 'father'
    e. shinshii 'teacher'
    f. 'ukkaa 'absentminded person'
    g. zimanaa 'boaster'
    h. butuu 'fat person'

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[7] The zero case-marking with [± human/animate] NPs seems to be sometimes possible, but different from the zero case-marking with pronouns and hence will not be considered in this article any further.

i.   'aakeezyuu 'dragonfly'

In contrast, a number of inanimate nouns show such vowel lengthening and it is illicit to lengthen a final vowel.

(40)   Okinawan
    a.   sumuchi(*-i) 'book'
    b.   chimu(*-u) 'mind'
    c.   kuruma(*-a) 'car'
    d.   makai(*-i) 'bowl'
    e.   basanai(*-i) 'banana'
    f.   kuma(*-a) 'here'
    g.   nama(*-a) 'now'
    h.   waachichi(*-i) 'weather'

Although there are exceptions, I still think that this tendency is not a coincidence.

(41)   A word-final lengthened vowel in nominals is an overt realization of animate noun class in Okinawan.

In this regard, it is likely not to be coincidental that the animate plural markers in Okinawan also show vowel lengthening.

5. Interaction with *Kakarimusubi*. Okinawan has a focus agreement system with a focus particle, just as Old Japanese did. This is traditionally called *kakarimusubi* "particle-predicate focus concord". In the neutral sentence in (42), the predicate takes the conclusive form -*n*. In contrast, in the focus sentence in (43), the focused phrase is marked by the focus particle *du* and the predicate takes the adnominal form -*ru*.

(42)   Okinawan
    Taraa-ga [Miyara shinshii-nu sumuchi]-∅ koota-{n/*ru}.
    Tara-NOM Miyara teacher-GEN book(-ACC) bought-CONCL/ADN
    'Tara bought Prof. Miyara's book.'

(43)   Okinawan
    Taraa-ga [Miyara shinshii-nu sumuchi]-∅-*du* koota-{ru/*n}.
    Tara-NOM Miyara teacher-GEN book(-ACC)-FOC bought-ADN/CONCL
    'It is Prof. Miyara's book that Tara bought.'

Now, it is significant to observe that subject focus forces otherwise ungrammatical genitive case -*nu* even for human/animate subjects. In example (44a), the subject DP *Taraa*, being [+human/animate], requires nominative case -*ga*. However, if the same subject DP is focused with -*du* as in example (44b), genitive case -*nu* becomes licit and nominative case -*ga* marginal.[8]

(44)   Okinawan

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[8] This pattern does not hold with demonstrative pronouns, which always require nominative case -*ga*.

(i)   Okinawan
    a.   Ari-{ga/*nu} Miyara shinshii-nu sumuchi koota-n.
         3SG-NOM/GEN Miyara teacher-GEN book   bought-CONCL
         'He bought Prof. Miyara's book.'

a. Taraa-{ga/*nu} Miyara shinshii-nu sumuchi koota-n.
Tara-NOM/GEN Miyara teacher-GEN book bought-CONCL
'Tara bought Prof. Miyara's book.'

b. Taraa-{??ga/nu}-*du* Miyara shinshii-nu sumuchi koota-ru.
Tara-NOM/GEN-FOC Miyara teacher-GEN book bought-ADN
'It is Tara who bought Prof. Miyara's book.'

It is possible to understand what is going on in terms of feature inheritance (Chomsky 2008, 2013), according to which T's ϕ-features are inherited from C. Thus, T probes and agrees with the subject DP in ϕ-features. Assuming that animacy feature is originally located on T, T also agrees with it in animacy feature. Consequently, the ϕ-features of T are valued and the uCase of the subject DP is valued according to the animacy hierarchy, in this particular case, as nominative case *-ga*.

In the case of subject focus, however, the situation is a little different: there is a focus feature on C in addition to ϕ-features. The literature has shown that focus is a property of CP domain (Rizzi 1997). In other words, the focus feature is not inherited from C to T. Suppose that ϕ-features also remain on C, when there is a feature that is not inherited down. Then it follows that both the focus feature and the ϕ-features remain on C. As a result, the focused subject (*DP-du*) agrees with C's focus feature as well as ϕ-features.

It is important to see that animacy agreement is not involved in ϕ-agreement between C and the subject DP. This is because animacy feature, by assumption, is always located on T and animacy agreement has already taken place when T probes the subject DP. Consequently, the Case of the subject DP is NOT valued according to the animacy hierarchy and gets a default case value—genitive case *-nu*. The otherwise puzzling interaction of case-marking and focus receives a natural account if case-marking in Okinawan is conditioned by animacy agreement as I have argued in this article.

6. Old Japanese. Nomura (1993) shows that two case markers nominative *-ga* and genitive *-no* in Old Japanese are distributionally different. While they do overlap in some cases, roughly speaking, the nominative case marker *-ga* is more restricted and the genitive case marker *-no* covers the rest. For example, nominative *-ga* attaches to personal pronouns and proper nouns, while genitive *-no* is more general.

This suggests that animacy agreement was active in Old Japanese, similarly to Okinawan (Kuroda 2007, Hiraiwa 2016).

(45) The Agreement Parameter
Agreement {is/is not} active.
a. Yes: Okinawan, Old Japanese
b. No: Japanese

Case-animacy interaction and focus agreement exist in Old Japanese and Okinawan, but not in Japanese. Hiraiwa (2016) argues that Okinawan has so-called NP-deletion (or N'-deletion), while Japanese lacks it. Similarly, Hiraiwa & Ishihara (2012) argues that TP-deletion (so-

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b. Ari-{ga/*nu}-*du* Miyara shinshii-nu sumuchi koota-ru.
3SG-NOM/GEN-FOC Miyara teacher-GEN book bought-ADN
'It is him who bought Prof. Miyara's book.'

called sluicing) is absent in Japanese (but see Inamine 2005 and Kurafuji 2009 for sluicing in Okinawan).

	Japanese	Old Japanese	Okinawan
case-animacy	No	Yes	Yes
Kakarimusubi	No	Yes	Yes
Cleft	Yes	(No)	No
TP-deletion	No	?	Yes
NP-deletion	No	?	Yes
Wh-movement	No	Yes	No

Table 3. Japanese vs. Old Japanese vs. Okinawan

7. Conclusion. In this article, I have addressed the following research question.

(46)   Is there any case in which "invisible" agreement can be detected albeit indirectly?

Building on the data from Okinawan, I have demonstrated that differential subject case-marking is conditioned by the animacy feature of the subject DP, lending support for the existence of ϕ-agreement in the language with no visible agreement.

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