

1400
1401
1402
1403
1404
1405



Nicān pēhua in itlātōl in āquin motequipachoa
‘Aquí comienza la palabra de aquel que trabaja y reflexiona.’



“El saber de mis hijos
hará mi grandeza”

Seminario de complejidad sintáctica 2013

Cuerpos académicos
“Estudios lingüístico-tipológicos
y etnoculturales en lenguas indígenas y minoritarias”
Universidad de Sonora (CA-81)
y
“Análisis y documentación en lenguas indígenas”
Escuela Nacional de Antropología e Historia (CA-14)

UNIVERSIDAD DE SONORA

Maestría en Lingüística
División de Humanidades y Bellas Artes
Departamento de Letras y Lingüística

1406



Ano de cinco coneros segun su cuenta y se veccc vj segun lankā
muriy acamapi chiltj y fue dexi so porxenō vi chiltj tli este a co
mapi chiltj habia dādo doctixas suyas por mugeres vna als
decoa tli chan y d tca als de culhuacan y mudōv el a cam
pi chiltj de tex m naxo n de bir apedix a dī capu calco quera vno
de las arbeceras vns que los sober nade y en so de tex m naxo
bolbel se de camjno y helē jic dentee si vnsenō y así lō hū zierō
v helē jieron abno quese dezia vichiltj v tli como el p mē xē nō

SEMINARIO DE COMPLEJIDAD SINTÁCTICA
2013

PROGRAMA

Sala de Usos Múltiples
Departamento de Letras y Lingüística
2°. Piso, edificio 3Q

Lunes 11 de noviembre

9:00-9:55 Grammaticalization in languages with a high degree of hidden complexity: Two types of maturation and two types of hidden complexity

Walter Bisang
University of Mainz

10:00-10:25 RECESO

10:30-10:55 ¿Dos tipos de subordinación con verbos auxiliares de movimiento en mixe?

Rodrigo Romero Méndez
IIFI-Universidad Nacional Autónoma de México

11:00-11:25 Oraciones de relativo en zoque de San Miguel Chimalapa, Oaxaca y zoque chiapaneco. Tipos estructurales y tipología

Silviano Jiménez y Roberto Zavala
Maestría en Lingüística Indoamericana, Centro de Investigación y Estudios Superiores en Antropología Social-Sureste

11:30-11:55 RECESO

12:00-12:25 Temporal relations and clause linking in Yaqui

Lilián Guerrero
Universidad Nacional Autónoma de México

- 12:30-12:55 De tópicos a marcadores de cláusulas de relativo. El morfema *-ma* en pesh
Claudine Chamoreau
SeDyL-CELIA (CNRS-IRD-INALCO)
- 13:00-16:00 COMIDA
- 16:00-16:55 The role of morphology in valency alternation phenomena
Masayoshi Shibatani
Rice University
- 17:00-17:25 RECESO
- 17:30-17:55 From discourse to syntax: The use of a discursive marker in the creation of interclausal connectors in Yaqui
Albert Álvarez González
Universidad de Sonora
- 18:00-18:25 Junturas sintácticas y relaciones semánticas interclausales en mazahua
Armando Mora-Bustos
Universidad Autónoma Metropolitana-Universidad Iztapalapa
- 18:30-18:55 Comparatives in languages of the Tarahumara: Diachronic change and non-conventional comparative constructions
Zarina Estrada Fernández
Universidad de Sonora
- 19:00 CENA

Martes 12 de noviembre

- 9:00-9:55 Mechanisms of syntactic change: “Split” alignments, local complexity, and systemic complexity
Spike Gildea
University of Oregon
- 10:00-10:25 RECESO
- 10:30-10:55 Lexicalización y gramaticalización de partes del cuerpo en maya yucateco actual
Fidencio Briceño Chel
Centro INAH, Yucatán
- 11:00-11:25 El verbo *ts’o’ok* ‘terminar’ como auxiliar aspectual en lacandón del sur
Israel Martínez Corripio
Escuela Nacional de Antropología e Historia
- 11:30-11:55 RECESO
- 12:00-12:25 Construcciones de doble objeto en el nawat de Pajapan, Veracruz
Valentín Peralta Ramírez
Escuela Nacional de Antropología e Historia
- 12:30-12:55 Mecanismos de cambio de valencia en seri
Ana Lilia Márquez Valdez
Doctorado en Humanidades, Universidad de Sonora

13:00-16:00 COMIDA

16:00-16:25 Una revisión sobre el estatus formal de las nominalizaciones en el contexto de las cláusulas complejas del seri

Maria Larios e Ía Navarro

Doctorado en Humanidades, Universidad de Sonora

16:30-16:55 ¿Incorporación en la voz media en zapoteco del Istmo?

Maritza Elena Enríquez Licón

Doctorado en Lingüística, El Colegio de México

RESÚMENES

Grammaticalization in languages with a high degree of hidden complexity: Two types of maturation and two types of hidden complexity

WALTER BISANG
University of Mainz
wbisang@uni-mainz.de

The present paper starts out from the assumption that there is not only an overt side to complexity but also a hidden side (Bisang 2009 on “hidden complexity”). It sees grammatical structures as the result of the competing motivations of explicitness vs. economy (Haiman 1983). Overt complexity can be seen as a reflection of explicitness, while hidden complexity stands for economy and pragmatic inference. Both motivations drive processes of diachronic maturation. The explicitness side of maturation is discussed extensively by Dahl (2004). Economy-driven maturation that leads to hidden complexity will be introduced in this paper. The basic idea is that a high degree of economy is as well the result of long-term processes of language change as an overtly complex system of grammatical markers. Thereby, hidden complexity is characterized (i) by the lack of obligatory categories for which there are markers in a language if their grammatical content cannot be inferred from context or (ii) by markers which cover a broad range of functions (multifunctionality).

The two types of maturation are basically independent. This yields four combinations or types of languages with relatively high/low values of explicitness-based and economy-based results of maturation (type IV seems to be non-existent):

Type I: [high explicitness] [high economy]

Type II: [high explicitness] [low economy]

Type III: [low explicitness] [high economy]

Type IV: [low explicitness] [low economy]

The paper will concentrate on East and mainland Southeast Asian languages, which belong to type I. These languages are characterized by their rich inventory of grammatical markers (high explicitness/high overt complexity) which strongly adhere to economic principles (high hidden complexity). This combination of maturity features produces a special type of grammaticalization which is characterized by the reduced co-evolution of form and meaning, i.e., even markers expressing highly grammaticalized concepts show relatively few morphophonological erosion and are still not obligatory in most cases (Bisang 2011).

The paper will illustrate concrete examples of explicitness-driven and economy-driven maturation:

- (i) Explicitness:
Rich inventory of grammatical markers: e.g. pronominal system, tense-aspect, numeral classifiers, etc.
- (ii) Economy:
 - a. Various examples of non-obligatoriness: radical-pro drop, tense-aspect, (in)definiteness, etc.
 - b. Multifunctionality:
 - Expression of person / personal pronouns
 - ‘give’-verbs in the function of prepositions, causative markers, subordinators, etc.
 - Numeral classifiers: counting and (in)definiteness

REFERENCES

Bisang, W. 2009. On the evolution of complexity –sometimes less is more in East and mainland Southeast Asia. In: G. Sampson, D. Gil and P. Trudgill (eds.), *Language Complexity as an Evolving Variable*, 34-49. Oxford: Oxford University Press.

- Bisang, W. 2011. Grammaticalization and typology. In: H. Narrog and B. Heine (eds), *Handbook of Grammaticalization*, 105-117. Oxford: Oxford University Press.
- Dahl, Ö. 2004. *The Growth and Maintenance of Linguistic Complexity*. Amsterdam and Philadelphia: Benjamins.
- Haiman, J. 1983. Iconic and economic motivation. *Language* 59: 781-819.

¿Dos tipos de subordinación con verbos auxiliares de movimiento en mixe?

RODRIGO ROMERO MÉNDEZ

Seminario de Lenguas Indígenas, IIFL, UNAM

rod.romero@gmail.com

En investigaciones sobre lenguas mixezoques se han detectado dos tipos sintácticos de construcciones con verbos de movimiento. El primer caso se trata de un tipo de subordinación no finita, como aparece en (1). El verbo de movimiento es el verbo matriz (y es el que se conjuga para persona y aspecto-modo) en tanto que el verbo que aporta el contenido léxico está subordinado (y por tanto incrustado (Cristofaro 2003)).

Este tipo de construcción no es exclusiva de los verbos de movimiento y sus características como subordinada se pueden establecer de forma independiente (cf. Romero en prensa).

(1) Mixe de Ayutla

Tës *nnijkxy* määp.

tëë=ëjts n-nëjks-y mä'ä-p

PERF=1SG 1S-urse-DEP dormir-INF

'Fui a dormir.'

El otro tipo de construcción es la que Zavala (2000) caracteriza propiamente como auxiliar de movimiento para el oluteco. En este caso, ejemplificada en (2) y (3), es el verbo de movimiento el que aparece en una conjugación no finita (es decir, no puede tomar marcador de persona). Si bien en oluteco parece ser una construcción muy productiva, en lenguas mixes de Oaxaca se había identificado de manera muy limitada. En esta ponencia se argumentará que, si bien con restricciones, no sólo *oy* ‘ir.y.regresar’ (en 2) puede aparecer en esta construcción, sino también *nějky* ‘irse’ (en 3) y *men* ‘venir’. Como ya se ha mencionado en otras ponencias, las lenguas mixes altas del norte no tienen esta construcción.

(2) Mixe de Coatlán

Tëkëëk to'oky *oy* të ntookyëtsy.

tëkëëk to'oky *oy* të
 tres petate haber.ido.y.regresado PERF
 n-took-y=ëtsy

1A-vender-DEP=PL

‘Fui a vender petates (y ya regresé).’

(3) Mixe de San Lucas Camotlán

Jä'äxy nējky npxyëtsy

jä'äxy nējky-y n-pux-y=ëtsy
 gente irse-DEP 1A-cortar-DEP=1SG

‘Voy a cortar leña.’

Uno de los problemas que se abordará en la ponencia es que no hay ninguna otra construcción en lenguas mixes de Oaxaca con estas características y el estatus del verbo de movimiento con respecto al principal no se puede establecer de forma independiente.

Hay otra construcción en la cual cualquier verbo de movimiento puede aparecer restringido al imperativo (4) o a un sentido prospectivo.

(4) Mixe de Santo Domingo Tepuxtepec

a. *näx mkay*
‘pasa a comer’

b. *pat mkay*
‘sube a comer’

Esta construcción aparece en todas las lenguas mixes y además no está restringida a los tres verbos mencionados anteriormente (*oy* ‘ir y regresar’, *něj̄kx* ‘irse’, *min* ‘venir’), sino que puede aparecer con casi cualquier verbo de movimiento. Superficialmente las construcciones en (2-3) y (4) son similares, sin embargo, como se explicará en la ponencia, sus propiedades morfosintácticas no son idénticas.

**Oraciones de relativo en zoque de San Miguel
Chimalapa, Oaxaca y zoque chiapaneco.
Tipos estructurales y tipología**

SILVIANO JIMÉNEZ
MLI-CIESAS
ROBERTO ZAVALA
CIESAS-Sureste
rzavmall@hotmail.com

El zoque de San Miguel Chimalapa (ZMIG) y varias variedades del zoque chiapaneco (ZCHIS) son lenguas de la rama zoqueana que presentan tres estrategias principales para la relativización de

núcleo de la relativa: a) estrategia hueco, b) estrategia de pronombre relativo, c) estrategia de no-reducción con núcleo interno. Dentro de la estrategia de hueco las lenguas presentan relativas posnominales, (1), y prenominales, (2):

(1) betu gaj(a) xokij(o) jejpá 'ëm 'ixpëkpa
 ZMIG betu_{FNmat} [PAUSA] [[Ø]_{FNrel}] ga-ja
 Beto DIST-POSP:LOC
 xoki-jo Ø=jejpá=pë'_{Orel} 'ëm='ix-pëk-pa
 caracol-POSP:LOC 3S.I=VIVIR-ICP.I=REL 2A=ver-agarrar-ICP.I
 'Conoces a Beto, el que vive allá en Las Conchas. {txt}

(2) 'i bi wakax 'ëy këxjajyë'k kajan 'ëy yakyakkawë 'ëy win
 ZMIG 'i [[Ø]_{FNrel}] bi wakax 'ëy=këx-jay-wë=pë'k]_{Orel}
 y DET vaca 3A=COMER-APL.R-CMP.I=REL
kajan_{FNmat} 'ëy=yak-yak-ka'-wë 'ëy=win
 tigre 3A=CAUS-CAUS-MORIR-CMP.I 3PSR=RFL
 'Y el tigre que le comió la vaca se dejó matar asimismo.'
 {txt}

La estrategia de pronombre relativo ocurre sólo con relativas posnominales, (3).

(3) 'ëm pë'tpa pwentejo ju kamilu 'angji 'ëm pa'ttë
 ZMIG 'ëm=pë'tpa pwente-jo_{FNmat} [ju
 2S.I=pasar-ICP.I puente-POSP:LOC PRO.REL
 kamilu [h] ='ang-ji 'ëm=pa't-wë]_{Orel}
 Camilo =BOCA-POSP:LOC 2A=encontrar-CMP.I
 'Pasas en el puente donde encontraste a Camilo.' {txt}

En la tercera estrategia, la de núcleo interno, el núcleo es parte de la oración relativa. En el ejemplo (4) se ilustra la relativización de objeto primario.

(4) ga' amintë 'ën 'ixpëk(kë) 'ëy nëmjaxukpa' puupu bobo
 ZMIG ga' 'amintë 'ën='ix-pëk-wë
 DIST año 1_A=ver-agarrar-CMP.I
 ['ëy=nëm-jay-xuk-pa=pë'k puupu_{FNREL} bobo]_{OR}
 3_A=decir-APL.R-3PL-INC.I=SBR pescado charal
 'Aquel tiempo conocí el pescado que le dicen charal.'
 {txt}

En nuestro estudio presentamos los rasgos semánticos y formales que distinguen a los distintos tipos estructurales de oraciones de relativo. En las lenguas zoques la estrategia de núcleo externo con hueco son oraciones incrustadas. Las relativas pronominales son menos marcadas que las posnominales ya que presentan un patrón prosódico sin pausa, mientras que las relativas posnominales obligatoriamente requieren pausa entre el nominal de dominio y la oración relativa. El orden en que ocurren la Ore1 menos marcada refleja el orden básico que en algún estado diacrónico tuvo la lengua, es decir OV. Las lenguas zoques presentan un subordinador exclusivo para relativas que difiere de los subordinadores de oraciones de complemento y adverbiales. El enclítico subordinador se hospeda como último elemento de los predicados simples o como último morfema de los verbos matrices de oraciones relativas multiverbales que no tienen pronombre relativo. Las oraciones relativas con núcleo externo e interno, independientemente del orden, son finitas ya que presentan los mismos marcadores de aspecto y persona que ocurren en la oración canónica independiente, por lo tanto, en las lenguas zoques las oraciones relativas no son construcciones nominalizadas.

La jerarquía de accesibilidad a la relativización que opera en las lenguas zoques difiere de la propuesta original de Keenan y Comrie (1977) en varios aspectos debido a la presencia de objetos secundarios y primarios, además de que la relación de genitivo ocupa un lugar más alto que los oblicuos, mientras que en la propuesta original de los autores, la relación de genitivo se encuentra

entre OBL y OCOMP. Finalmente, en las lenguas zoques hay una distinción entre los OBL y los ADJ(untos), la cual fue una distinción ignorada en la propuesta de los autores mencionados. En ZMIG los OBL y los ADJ que expresan LOC y RZN ocupan un lugar más alto que los ADJ que expresan TMP y MNR. Al igual que lo sugerido por Keenan y Comrie, la relación de OCOMP ocupa el lugar más bajo en la jerarquía de ZMIG.

(5) *Jerarquía de acecibilidad en lenguas zoques*

S/A> OP> OS> GEN> [COMIT> INSTR]_{OBL}> [LOC> RZN> TMP> MNR]_{ADJ}> OCOMP

Para el caso de las oraciones relativas prenominales, los argumentos relativizables por medio de la estrategia hueco se extiende desde los argumentos centrales S/A, OP y OS hasta la relación de genitivo. Cabe destacar que las relaciones gramaticales de OBL, ADJ y OCOMP se valen de otras estrategias para la relativización. Por otro lado, la estrategia de las oraciones relativas posnominales con hueco se extiende desde los argumentos centrales S/A hasta la relación adjunta de razón. La estrategia de núcleo interno se extiende desde S/A hasta OBL instrumento. Finalmente, la estrategia de pronombre relativo ocurre únicamente con adjunto locativo y de razón. Esto se resume en el siguiente cuadro que compara el alcance de las cuatro estrategias.

ESTRAT HUECO	S	A	OP	OS	GEN	OBLICUOS		ADJUNTOS				OCOMP
						COMIT	INSTR	LOC	RZN	TMP	MNR	
PRENOM	✓	✓	✓	✓	✓	-	-	-	-	-	-	
POSNOM	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	
NINT	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	
PRO.REL	-	-	-	-	-	-	-	✓	✓	-	-	

Cuadro 1. Comparación de las relaciones gramaticales que tienen acceso a las tres estrategias de relativización en las lenguas zoques

REFERENCIAS

- Andrews, Avery D. 2007. Relative clauses. En Timothy Shopen (Ed.), *Language Typology and Syntactic Description*, Vol. 2, pp. 206-236. Cambridge: Cambridge University Press.
- Comrie, Bernard y Tania Kuteva. 2005. Relativization strategies. En Martin Haspelmath, Matthew Dryer, David Gil y Bernard Comrie (Eds.), *Word Atlas of language Structure*, pp. 494-497. Oxford: Oxford University Press.
- Comrie, Bernard. 1981. *Language universals and linguistic typology*. Chicago: Chicago of University Press.
- Cristofaro, Sonia. 2003. *Subordination*. Oxford: Oxford University Press.
- Faarlund, Jan T. 2012. *A Grammar of Chiapas Zoque*. Oxford: Oxford University Press.
- Johnson, Anna. 2000. *A Grammar of San Miguel Chimalapa Zoque*. Tesis de Doctorado. University of Texas at Austin.
- Keenan, Edward y Comrie Bernard. 1977. Noun phrase accessibility and universal grammar, *Linguistic inquiry* 8, 63-100.
- Keenan, Edward. 1985. Relative clauses. En Timothy Shopen (Ed.), *Language Typology and Syntactic Description*. Vol. II, pp. 141-170. Cambridge: Cambridge University Press.
- Lehmann, Christian. 1986. On the typology of relative, *Linguistic* 24, 663-680.
- Zavala, Roberto. 2000. *Inversion and other topics in the grammar of Olutec*. Tesis de Doctorado. Oregon University of Oregon.

Temporal relations and clause linking in Yaqui

LILÍAN GUERRERO

Universidad Nacional Autónoma de México

lilianguerrero@yahoo.com

Since sentential adjuncts do not fill an obligatory slot of a superordinate clause, there is no strong evidence to argue that adverbial sentences, in general, are syntactically embedded. Then, adverbial clauses are usually characterized by the semantic association they establish with the main unit, rather than their morphosyntactic properties (Thompson & Longacre 1985; Matthiessen & Thompson 1988; Kortmann 1997; Cristofaro 2003; Thompson et al 2007; Dixon & Aikhenvald 2009).

This paper explores the syntax and semantics of clause linking expressing a temporal relation in Yaqui (Uto-Aztecan). Basically, temporal clauses are introduced by the two major adverbial markers. A simultaneous relation is marked by *-kai* (*-ka* when the clause is non-final), as in (1a), while a sequential relation is marked by *-o*, as in (1b). Optionally, after- and before- temporal clauses can be overtly marked by the aspectual suffix *-su* ‘completive’ (2a) and the particle *ketunke* ‘before’ (2b), respectively.

(1) General temporal relation

a. *Nim amigo-Ø_i muuku-k [Unison-po -_i
1SG.GEN friend-NOM die.SG-PFV Unison-LOC
study-CLM
estudiaroa-kai]*
‘My friend died while studying at the Unison.’

b. *[Unison-po=ne estudiaroa-k-o] nim papa
Unison-LOC=1SG.ACC study-PFV-CLM 1SG.GEN father
yo’owe-Ø muuku-k
old-NOM die.SG-PFV
‘When I was studying at the Unison, my grandfather died.’*

(2) Sequential temporal relations overtly marked

a. *Enchi*_i=*ne*_i *bicha-k* [*karro-ta* *nee*_i
2SG.ACC=1SG.NOM see-PFV car-ACC 1SG.ACC
jinu-su-k-o]
buy-COMPL-PFV-CLM
'I saw you after I bought the car.'

b. *Enchi*_i=*ne* *bicha-k* [*ketunke* *karo-ta*
2SG.ACC=1SG.NOM see-PFV before car-ACC
*enchi*_i *jinu-k-o*]
2SG.ACC buy-PFV-CLM
'I saw you before you bought the car.'

There is a consistent, still not obligatory, distribution of these two markers: *-kai* is used when the main and dependent subjects are identical, whereas *-o* tends to be used when they are different. There is no data where *-kai* marks a different-subject clause, but same-subject clauses marked by *-o* may occur (2a). This distribution might suggest that adverbial clauses marked by *-kai* only encode simultaneous and same-subject clauses, while *-o* clauses introduce both simultaneous and sequential relations regardless the identity of the subjects.

Based on data from oral texts, the aims of this paper are the following: (i) to confirm the potential restrictions of the two markers in terms of the identity of the subject; (ii) to explore the correlations of the adverbial markers and the temporal relation they introduce, and (iii) to establish the degree of syntactic and semantic integration among the two clause linkage types.

REFERENCES

- Cristofaro, S. 2003. *Subordination*. New York: OUP
Dixon, R.M.W. & A. Aikhenvald. 2009. The semantics of clause linking. Oxford: OUP.

- Kortmann, B. 1997. *Adverbial subordination*. Berlin/New York: Mouton de Gruyter.
- Matthiessen, C. & S. Thompson. 1988. The Structure of discourse and ‘subordination’. In *Clause combining in grammar and discourse*, J. Haiman and S. Thompson (eds). pp. 275-329. Amsterdam: John Benjamins.
- Thompson, S. & R. Longacre. 1985. Adverbial clauses. In *Language Typology and syntactic Description*, Vol. 2. T. Shopen (ed). pp.171-284. Cambridge: CUP.
- Thompson, S. *et al.* 2007. Adverbial clauses (part 1). *Language typology and syntactic description 2*. T. Shopen (ed). Cambridge: CUP. pp. 237-269.

De t3pico a marcador de cl1usula de relativo. El morfema *-ma* en pesh

CLAUDINE CHAMOREAU
SeDyL-CELIA (CNRS-IRD-INALCO)
claudine@vjf.cnrs.fr

El objetivo de este trabajo es mostrar el comportamiento del morfema *-ma* en pesh (familia chibcha). Aparece en dos tipos de contextos diferentes: funciona como un t3pico sufiij1ndose a un nominal o se presenta en una cl1usula relativa sufiij1ndose a un verbo.

La funci3n m1s frecuente de *-ma* es la de un marcador de t3pico contrastivo (Lambrecht 1994) que permite seleccionar y mencionar uno de los posibles t3picos accesibles en un relato o en una conversaci3n, generalmente el participante marcado con *-ma* cumple con la funci3n de sujeto, como en (1), sin embargo algunos casos de nominal en funci3n objeto tambi3n pueden ser

marcados por *-ma* (en contra de lo que postula Holt 1999). En este contexto, el nominal marcado con *-ma* conserva la posición esperada de un elemento en función sujeto u objeto en una lengua SOV, ya que se encuentra antepuesto al verbo.

- (1) *a-yé-ma* Alisia a-káʔchéh-èr-wá
 3SG.POS-niño-TOP Alicia 3SG.OBJ-amar-3PL.SJ-PRES
 ‘Los niños quieren a Alicia.’ (030412-4-00:55)

De esta manera también puede aparecer en un nominal que posee una función deíctica, funcionando como una frase adverbial. En este contexto, indica un contraste con el tiempo o el lugar enunciado anteriormente. Generalmente, aparece con elementos como *ìkatá* ‘ahora’ en (2) o *añá* ‘aquí’ cuyas referencias son fácilmente accesibles.

- (2) *ìkatá-ma* ta-sònkò ø-tíx-k-a-wá
 ahora-TOP 1SG.POS-plátano 3SG.OBJ-sembrar-FT-1SG.SJ-PRES
 ‘Ahora, siembro mi plátano.’ (020412-3-12:30)

Además, el marcador *-ma* puede también aparecer en una posición marcada, esto es, se pospone al verbo. Esta dislocación a la derecha está acompañada de una pausa entonacional entre el verbo y el nominal. En este contexto, el hablante repite la información ya presente en la cláusula, como en (3). Generalmente esta estrategia permite indicar el cierre de una cadena informacional (Givón 1983).

- (3) *añá* sekì-ko-yá *añá* katúx-ber-íʔ,
 aquí santo-NMLZ-LOC aquí trabajar-1PL.SJ-PAS
untàs-ma
 1PL-TOP
 ‘Aquí, en la iglesia aquí trabajábamos, nosotros.’
 (030412-19-03:38)

Ahora bien, *-ma* también puede sufiarse a un verbo en una cláusula relativa, como en (4), el núcleo nominal es externo y precede la relativa, es sujeto de la cláusula relativa y de la principal. En este contexto, el verbo de la cláusula principal aparece siempre al final de la oración.

- (4) tóʔ kòrtá [aʔkàʔ-na-ø-wa-*ma*]
 DEM.D₁ mujer llorar-DUR-3SG.SJ-PRES-TOP
 ta-kàki-ʔí
 1SG.POS-madre-ser.3SG.SJ.PRES
 ‘Esta mujer que llora es mi madre.’
 (070412-3-10:00)

El morfema *-ma* muestra un cambio de un uso pragmático, dígase tópico, a un uso morfológico, como marcador en una cláusula de relativo. Este cambio indica un canal de gramaticalización de un uso en el discurso a un uso en la morfología.

REFERENCIAS

- Givón, T. 1983. *Topic Continuity in Discourse: Quantified Cross-Language Studies*. Amsterdam: John Benjamins.
 Givón, T. 2001. *Syntax*. Amsterdam: John Benjamins Publishing Company
 Holt, D. 1999. *Pech (Paya)*. Munich: Lincom Europa.
 Lambrecht, K. 1994. *Information Structure and Sentence Form. Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge University Press.

The role of morphology in valency alternation phenomena

MASAYOSHI SHIBATANI
Rice University
matt.shibatani@gmail.com

It is customary in the field to refer to morphological properties in defining and describing valency alternation phenomena such as passivization and applicativization. For example, the Leningrad/St. Petersburg typologists define voice as “a regular marking in the verb of the correspondences between units at the syntactic level and units at the semantic level. In short, voice is a diathesis grammatically marked in the verb” (Xolodoviè 1970 as quoted in Geniušienė 1987: 42-53). Similarly, Dixon and Aikhenvald 2000: 13-14) define applicatives as involving “some explicit formal marking of an applicative construction, generally by an affix or some other morphological process applying to the verb”. By first examining applicative constructions in the Austronesian language Balinese, I will argue that adherence to morphology and even syntactic properties such as valency increase not only fail to capture the essence of applicatives in Balinese but also miss important cross-linguistic generalizations about applicative constructions, which in some languages, e.g., English, do not involve morphology. I will then look at the more general problems in the role of morphology in valency alternation phenomena such as transitive-intransitive alternation and ask the question of when morphology is meaningful and when it is not in these phenomena.

From discourse to syntax: The use of a discursive marker in the creation of interclausal connectors in Yaqui

ALBERT ÁLVAREZ GONZÁLEZ
Universidad de Sonora, México
aalvarez@lenext.uson.mx

This presentation aims to show and explain the evolutionary path through which a discursive marker of the Yaqui language (Uto-Aztecan) has been recruited for interclausal connectivity purposes.

First, I will present the current uses of two syntactic connectives in Yaqui: the subordinating conjunction *bwe'ituk* that serves to introduce cause/reason adverbial clauses and the coordinating conjunction *bweta* that conveys an adversative meaning. Considering the origins of these conjunctions, I will propose that both interclausal connectors are the result of a recent connective-formation process that combines a discursive marker (the interjection *bwe*) and linguistic elements associated with the strategies used in the past for marking cause/reason subordinating clauses and adversative coordinating clauses in Yaqui.

In order to argue in favor of this hypothesis, I will illustrate the cause/reason adverbial clauses and the adversative coordinating clauses documented in *Arte de la lengua cahita*, which contains the first available description of the Yaqui language from the first half of the seventeenth century. In addition, I will also identify the main discursive functions of the particle *bwe* in current Yaqui from conversational and narrative discourses. Lastly, I will try to determine the discursive features of the particle *bwe* that can explain its involvement in the creation of new syntactic connectors, placing this evolution in regards to the processes of pragmaticalization and grammaticalization.

Junturas sintácticas y relaciones semánticas interclausales en mazahua

ARMANDO MORA-BUSTOS

Universidad Autónoma Metropolitana-Unidad Iztapalapa

amora@xanum.uam.mx

El objetivo de este trabajo es presentar una descripción de las construcciones formadas por la concurrencia de dos o más verbos. Los tipos de juntura han sido clasificados por Van Valin y LaPolla (1997) y Van Valin (2005) a partir de las tres clases de nexos, esto es, coordinación, subordinación y cosubordinación; igualmente, estas junturas están asociadas a un amplio repertorio de relaciones semánticas interclausales tales como: causal, fase, modificación de subeventos, acción psíquica, propositiva, mandato, percepción directa e indirecta, actitud proposicional, cognición, discurso directo e indirecto, circunstancia, razón, condición, concesión, temporal y situación-situación. Por ahora me centraré específicamente en las relaciones semánticas interclausales de fase, las cuales involucran verbos tales como *p^hiri* ‘comenzar’ de (1a), *k^{wh}ari* ‘terminar’ de (1b) y *mi-wε mi-wε* ‘seguir llorando’ de (1c); igualmente, me centraré en las relaciones semánticas interclausales que implican verbos de acción psicológica, como en (2).

- (1) a. ro-p^hiri ro-pep^hi šōri-t^ho
1.PST-comenzar 1.PST-trabajar temprano-DE
‘comencé a trabajar temprano’
- b. ra-k^{wh}ati=k^ho ra-pe?e nu=βos’i
1.FUT-terminar=SBJ.ENF 1.FUT-tejer ART=canasta
‘voy a terminar de tejer una canasta’
- c. nu=t’ii=nu mi-wε mi-wε k^ha=escuela
ART=niño=ART 3.PSR-llorar 3.PSR-llorar LOC=escuela
‘el niño seguía llorando en la escuela’

Tanto las oraciones con verbos de fase, como las de verbos de acción psicológica, en las que se incluye verbos como *k̃intʃʰi* ‘pensar’ de (2a), *jombeñe* ‘olvidar’ de (2b) y *neʔe* ‘querer’ de (2c), aparecen en construcciones sintácticas formadas por más de un verbo. Estas concurrencias verbales se caracterizan porque la marca de tiempo, aspecto y modo es correferencial en los dos verbos, como en (1); o por el contrario, estos rasgos no presentan correferencia, como en (2). Esto implica que el tipo de juntura en estas construcciones verbales es diferente: cosubordinación nuclear, para las de (1) y coordinación nuclear y cosubordinación del núcleo (*core*) para las de (2).

- (2) a. nʉtsʰkome ja=ri-k̃intʃʰi=me
 1.PRON PTL=1.PRS-pensar=PL.INCL
 ra-pɔ=me nu=ɓuru
 1.FUT-vender=PL.INCL ART=burro
 ‘pensamos vender el burro’
- b. nujo ø-jombeñe=hi ja=ø-ñɔnʰi
 3.PRON 3.PST-olvidar=PL.INCL PTL=3PST-comer
 ‘ellos se olvidaron de comer’
- c. ri-ne ra-ma kʰo=Mbaro
 1.PRS-querer 1.FUT LOC=Atlacomulco
 ‘quiero ir a Atlacomulco’

Con el fin de describir el tipo de juntura sintáctica y la clase de relación semántica interclausal que presentan las construcciones oracionales complejas, como las de (1) y (2), las cuales están formadas con verbos de fase y acción psicológica, se parte de la correlación que existe entre los dos verbos. Esta correlación se la determinará, ahora, a partir de los operadores tiempo, aspecto y modo. La variante de Mazahua objeto de estudio es la de San Pedro Potla, municipio de Temascalcingo, Estado de México.

BIBLIOGRAFÍA

- Knapp, Michael. 2011. *Doctrina y enseñanza en la lengua mazahua: Estudio filológico y edición interlineal. Seguidos de un esbozo gramatical*. Tesis Doctoral. El Colegio de México. México.
- Mora-Bustos Armando. 2012. Las relaciones gramaticales en Mazahua. Trabajo presentado en el *seminario de complejidad sintáctica*, 12 y 13 de noviembre, Universidad de Sonora, Hermosillo.
- Palancar, Enrique. 2009. *Gramática y Texto del hñoño. Otomí de San Ildefonso Tultepec, Querétaro*. Plaza y Valdes: México.
- Stewart, Donald. *ms.* 1966. *Borrador de la gramática del mazahua*. Correcciones y comentarios agradecidos. Doris Bartholomew. México: ILV.
- Van Valin, Robert y Randy LaPolla. 1997. *Syntax. Structure, meaning, and function*. Cambridge University Press: Cambridge.
- Van Valin, Robert. 2005. *Exploring the Syntax and Semantic Interface*. Cambridge University Press: Cambridge.

Comparatives in languages of the Tarahumara: Diachronic change and non-conventional comparative constructions

ZARINA ESTRADA FERNÁNDEZ
Universidad de Sonora
zarinaef@gmail.com

Stassen's (1985) typology about comparative constructions has proposed five major types of comparative clauses although his final conclusions are centered in a discussion about word-order and certain clause combining features. The five major types of comparative clauses are the following: (i) the separative construction (adverbial phrase construction, a single clause), (ii) the allative construction (a goal-adverbial phrase, a single clause), (iii) the locative comparative (a particle, adposition, or locative marker construction, a single clause), (iv) the exceed-verb comparative or 'to surpass' verb (serial verb construction or a single clause construction), and (v) the conjoin type (involving either juxtaposition, coordination, or an adversative coordination, two clauses construction). Where type (i) and (ii) may be considered included within the adjunct clause type (an adjunct with a case marker).¹

The main focus of this presentation is the study of comparative constructions in the languages of the Tarahumara region: tarahumara, pima bajo, guarijío and northern tepehuan. The central aim of the presentation is to explore, how the complex intragenetic panorama of four languages can be explained

¹ Haspelmath 2013 subdivides Stassen's locative type as: the ablative, locative, allative, and comitative subtypes. The conjoined comparative is considered by this author as a "double predication".

considering the main grammaticalization pathways or diachronic routes of such constructions. For such reason, comparative constructions in Uto-Aztecan languages from the Tarahumara region are analyzed from a diachronic-typological perspective. The analysis of such constructions show (i) that such type of constructions do not neatly respond to Stassen's typology and (ii) that such constructions are a clear example of what has been pointed out by Dixon (2008), i.e., that comparative constructions does not conform a natural class that is obligatorily present in all languages of the world.

The diachronic analysis provided in this presentation shows that the basic comparative construction in languages of the Tarahumara region is the comparative of equality, and that the basic strategies are either juxtaposition, copula constructions or adjunct complements.

REFERENCES

- Dixon, R.M.W. 2008. "*Comparative constructions: a cross-linguistic typology.*" *Studies in Language*, 32 (4): 787-817.
- Haspelmath, Martin. 2013. "The typology of comparative constructions revisited." ALT, Leipzig.
- Stassen, Leon. 1985. *Comparison and Universal Grammar*. Oxford: Basil Blackwell.

Mechanisms of syntactic change: “Split” alignments, local complexity, and systemic complexity

SPIKE GILDEA
University of Oregon
spike@uoregon.edu

This paper is about the genesis of grammatically split versus grammatically consistent systems in grammar, and how different processes of change lead to these different outcomes. The three processes of syntactic change identified by Harris & Campbell (1995) are reanalysis, extension, and contact. In this paper, I will address reanalysis and extension as the two primary mechanisms of change, suggesting that construction reanalysis consistently reduces local complexity while increasing systemic complexity, whereas analogical extension is logically neutral with reference to complexity. As a consequence of a historical perspective, we see that so-called “split” grammar is, in fact, not an increase in local complexity, i.e., a single construction that has been divided into two or more sub-constructions, but is rather an increase in systemic complexity, in which two independent constructions become stitched together, like a patchwork quilt, to cover a given communicative function. Data for this talk come from two South American language families, Cariban and Jê, each with multiple tense-aspect-based splits in main clause grammar.

In the Cariban family, the foundation of the quilt is the morphologically rich Set I system, which Gildea (1998) reconstructs as the Proto-Cariban main clause grammar system. Against this backdrop, various types of subordinate clause are reanalyzed as new main clauses, each bringing with it a more limited range of inflectional morphology instantiating a different set of alignment properties. Each innovative clause thereby creates another alignment “split”, as described in detail in Gildea (2012). In each case, reanalysis decreases local complexity in that a

biclausal source construction becomes a monoclausal main clause construction. However, taking each new construction as a new patch added to the quilt of main clause grammar, we can see that each reanalysis increases the complexity of the patchwork system of main clause grammar.

The Jê family is more isolating than the Cariban family, with the etymological foundation of the quilt as a fairly simple agent-patient alignment (Castro Alves 2010). In Northern Jê, there is only one nonfinite verbal form, so all subordinate clauses utilize this form; one property of the grammar of this nonfinite form is that the agent of a transitive verb must bear an ergative postposition. Various kinds of biclausal constructions are reanalyzed as new main clauses, each having its own alignment properties (some ergative, some nominative-absolutive, cf. Gildea & Castro Alves 2010). Again, each reanalysis decreases local complexity (a biclausal construction becomes monoclausal) and increases the complexity of the main clause quilt, adding new alignment patches.

Against reanalysis, we also have the mechanism of extension, which may increase, decrease, or remain neutral with reference to both types of complexity. In Northern Jê, a subset of the new ergative main clauses later loses the ergative postposition to become nominative-absolutive, decreasing local complexity while not changing systemic complexity. In southern Cariban, the Set I person-marking system extends from main clauses to nominalized clauses, increasing local complexity while decreasing systemic complexity.

REFERENCES

- Castro Alves, Flavia. 2010. Evolution of alignment in Timbira. *IJAL* 76(4): 439-75.
- Gildea, Spike. 1998. *On Reconstructing Grammar: Comparative Cariban Morphosyntax*. Oxford: Oxford University Press.

- Gildea, Spike. 2012. Linguistic Studies in the Cariban Family. *Handbook of South American Languages*, ed. by Lyle Campbell and Veronica Grondona, 441-494. Berlin: Mouton de Gruyter.
- Gildea, Spike and Flávia Castro Alves. 2010. Nominative-Absolutive: Counter-Universal Split Ergativity in Jê and Cariban. *Ergativity in Amazonia*, ed. by Spike Gildea and Francesc Queixalós, 159-199. Amsterdam: John Benjamins.
- Harris, Alice C. and Lyle Campbell. 1995. *Historical Syntax in Cross-Linguistic Perspective*. Cambridge: Cambridge University Press.

Lexicalización y gramaticalización de partes del cuerpo en maya yucateco actual

FIDENCIO BRICEÑO CHEL
Centro INAH, Yucatán
fbchel@yahoo.com.mx

El cuerpo humano como centro de referencia ha sido tema de estudios antropológicos y lingüísticos en varias lenguas indígenas, por ejemplo en México podemos citar desde Friedrich 1970 para el tarasco, López Austin 1980 para el náhuatl hasta De León 1988 para el Tzotzil, que han sido fuente de inspiración para posteriores estudios. Este trabajo partiremos de la idea de que los términos usados para hacer referencia a las partes del cuerpo forman parte de un gran número de palabras que por diferentes procesos han participado en la creación de nuevos términos, ya sea por gramaticalización, lexicalización, composición, pero también a través de proyecciones metafóricas y metonímicas, muy comunes en las lenguas indígenas mesoamericanas.

En ese sentido, el presente trabajo abordará el proceso de composición de nuevas palabras en el maya yucateco actual en las que de algún modo se utiliza alguna parte del cuerpo, con cuyo resultado se obtienen nuevos elementos léxicos mucho más complejos morfosintácticamente y/o especializados o puntuales semánticamente; por lo que se procederá en primera instancia a distinguir los diversos procesos de formación de estos términos para luego dar paso a la identificación y análisis de los usos actuales que van más allá de la referencialidad al cuerpo para mostrar grados más completos de lexicalización, gramaticalización y/o recategorización.

REFERENCIAS

- De León Pasquel, Lourdes. 1988. "El cuerpo como centro de referencia: semántica y uso de algunos clasificadores de medida en tzotzil". *Anales de Antropología* Vol. 25. No. 1. pp 383-396.
- Friedrich, P. 1970. "Shape in Grammar". *Language* 46. pp. 379-407.
- López Austin, Alfredo. 1980. *Cuerpo humano e ideología*. 2 vols., México, UNAM.

El verbo *ts'o'ok* 'terminar' como auxiliar aspectual en lacandón del sur

ISRAEL MARTÍNEZ CORRIPIO
Escuela Nacional de Antropología e Historia
israim@hotmail.com

Los estudios en lenguas yucatecas de la familia maya (lacandón del sur, lacandón del norte, yucateco, itzaj y mopán), muestran que el verbo fasal *ts'o'ok* 'terminar' se ha gramaticalizado como un auxiliar aspectual. Sin embargo, no en todas estas lenguas dicho proceso de gramaticalización se ha desarrollado de la misma forma.

El trabajo de Smailus (1989), muestra que en yucateco colonial *ts'o'ok* 'terminar' ya operaba como un marcador aspectual. Por otro lado, Briceño Chel (2000) menciona que en yucateco actual el verbo *ts'o'okol* 'terminar' se ha gramaticalizado como un marcador de tiempo-aspecto, en el cual se reconocen los criterios de gramaticalización de Heine (1993), es decir: cambio de función, reducción fonética, clitización y cambio semántico. En contraste, Hofling (2000) registra en itzaj el uso de la raíz intransitiva *tz'o'k* 'finalizar', como un auxiliar con semántica aspectual, pero no con los mismos rasgos de gramaticalización que Briceño Chel (2000) menciona para el yucateco. Asimismo, a partir de los datos de Bruce (1968) sobre el lacandón del norte, podemos asumir que en esta lengua la raíz *ts'o'ok* 'terminar' se encontraría en el mismo nivel de gramaticalización que en itzaj. Finalmente, en mopán no se ha registrado el uso de *ts'o'ok* 'terminar' como un auxiliar aspectual.

En este trabajo presento cómo opera actualmente el proceso de gramaticalización de *ts'o'ok* 'terminar' en lacandón del sur, para lo cual retomo las propuestas de Anderson (2006) respecto a construcciones con verbos auxiliares. Así como el trabajo de Briceño Chel (2000), sobre la gramaticalización de *ts'o'okol* 'ter-

minar' en yucateco y Zavala & López (2012), sobre auxiliares en lenguas de Mesoamérica.

BIBLIOGRAFÍA

- Anderson, Gregory. 2006. *Auxiliary verb constructions*. Oxford: Oxford University Press.
- Briceño Chel, Fidencio. 2000. "La gramaticalización del verbo 'terminar' *ts'o'okol* en maya yucateco" *Lingüística Mexicana* I: 79-91.
- Bruce, Roberto D. 1968. *Gramática del Lacandón*. México: Instituto Nacional de Antropología e Historia.
- Heine, Bernd. 1993. *Auxiliaries: Cognitive Forces and Grammaticalization*. New York: Oxford University Press.
- Hofling, Charles A. 2000. *Itzaj Maya Grammar*. The University of Utha Press.
- Smailus, Ortwin. 1989. *Gramática Maya*. Hamburgo: Wayasbah.
- Zavala Maldonado, Roberto & Oscar López. 2012. *Rutas de auxiliarización de verbos de movimiento, modales y fasales en algunas lenguas de Mesoamérica*. Ponencia presentada en el Seminario de Complejidad Sintáctica. Universidad de Sonora. 12-13 de noviembre 2012.

Construcciones de doble objeto en el nawat de Pajapan, Veracruz.

VALENTÍN PERALTA RAMÍREZ
Escuela Nacional de Antropología e Historia
miahuatl@hotmail.com

En el presente trabajo voy a describir las construcciones ditransitivas que se presentan en el nawat de Pajapan, Veracruz. Las construcciones ditransitivas serán entendidas aquí como aquellas construcciones que presentan dos argumentos de objeto, y de acuerdo con las propiedades morfosintácticas de esta lengua, es decir, el hecho de ser una lengua de objeto primario y con marcación en el núcleo, las frases nominales no son requeridas sintácticamente. Sin embargo, en este trabajo vamos a describir las construcciones básicas de doble objeto en la lengua. Este tipo de construcciones pueden ser clasificadas en tres tipos: a. construcciones ditransitivas básicas (de un solo miembro #*maka* ‘dar’), b. construcciones derivadas de aplicativos, y c. construcciones derivadas de causativos. Aunado a este tipo de construcciones ditransitivas consideraremos en este análisis dos construcciones alternas que conllevan una semántica ditransitiva como las de posesión externa y las de ascensión de poseedor, como se muestran en los siguientes ejemplos:

- (1) a. ni-**gin**-maga-ti chi kafeh no-pilo-a:n
1SUJ-3OP.PL-dar-AND poco café 1POS-hijo-PSDO.PL
‘Les voy a dar un poco de café a mis hijos.’
- b. ni-**gin**-maga in-taxkal no-pil-oa:n
1SUJ-3OP.PL-dar 3POS-tortilla 1POS-hijo-PSDO.PL
‘Les doy tortilla a mis hijos.’
- (2) a. ni-**k**-go:wa-k taxkal
1SUJ-3OP-comprar-PERF tortilla
‘Compré tortilla.’

b. ni-**gin**-go:wi-**liya** [in-taxkal]
 1SUJ-3OP-comprar-APL 3POS-tortilla
 [no-pih-wa:n]
 1POS-tía-PSDO.PL
 ‘Les compro su tortilla a mis tías.’

(3) ni-mis-namagi-**ltiya** se no-goya:meh
 1SUJ-2OP-vender-APL uno 1pos.marrano
 ‘Yo te vendo un (mi) marrano (por ti).’ (benefactivo)

De acuerdo con los ejemplos mostrados en (1), (2) y (3), podemos ver que las construcciones de doble objeto se realizan bajo las tres construcciones ya mencionadas, y que las frases nominales se reacomodan de acuerdo a la marcación en el núcleo, es decir, pueden o no estar presentes sintácticamente pero sí marcados en el núcleo, o bien, requieren de la construcción genitiva vía la ascensión de poseedor como en (2b) y (3a). Por lo tanto, en este trabajo revisaremos este tipo de construcciones.

BIBLIOGRAFIA

- Canger Una. 1988. Nahuatl Dialectology: A Survey and Some Suggestions. *International Journal of American Linguistics*, Vol. 54. No. 1. pp. 28-72. The University of Chicago Press.
- Dryer, Matthew S. 1986. Primary Objects, Secondary Objects, and Antidative. *Language*, Vol. 62, No. 4. pp. 808-845.
- Haspelmath, Martin. 2005. Argument marking in ditransitive alignment types. *Linguistic Discovery* 3.1: 1-21.
 Disponible en <http://linguistic-discovery.dartmouth.edu/>
- Lastra de Suarez, Yolanda. 1986. *Las áreas dialectales del náhuatl moderno*. (Serie Antropológicas: 62). Ed. IIA/UNAM. México.

- Levy, Paulette. 2002. El aplicativo dativo/benefactivo en totonaco de Papantla. En: Zarina Estrada Fernández y Rosa María Ortíz Ciscomani (eds.), *Memorias del VI Encuentro Internacional de Lingüística del Noroeste: Memorias Tomo 1*. pp. 445-60. Hermosillo: Universidad de Sonora.
- Levy, Paulette. 2006. Posesión externa y posesión proléptica en algunas lenguas de la familia maya. En: Zarina Estrada Fernández (ed.), *Memorias del VIII Encuentro Internacional de Lingüística del Noroeste: Memorias Tomo 1*. pp. 312-30. Hermosillo: Universidad de Sonora.
- Malchukov, Andrej; Haspelmath, Martin y Bernard Comrie. 2007. Ditransitive constructions: a typology overview. Disponible en: [http://email.eva.mpg.de/~haspelmath/Ditransitive Overview.pdf](http://email.eva.mpg.de/~haspelmath/DitransitiveOverview.pdf) (febrero 2008).
- Margetts, Anna y Peter Austin. 2007. Three participants events in the languages of the word: Towards a crosslinguistic typology. *Linguistics* 45.3: 393-451.
- Newman, John. 2005. Three-place predicates: A cognitive-linguistic perspective. *Language Sciences* 27: 145-163.
- Nichols, Johanna. 1986. "Head-marking and dependent-marking grammar", en: *Language* 62. pp. 56-119.
- Peterson, David. 2007. *Applicative constructions*. Oxford: Oxford University.

Mecanismos de cambio de valencia en seri

ANA LILIA MÁRQUEZ VALDEZ

Universidad de Sonora

marquez.analilia@gmail.com

El seri (ISO 639-3 sei) es una lengua aislada que se habla en dos localidades de Sonora. Tipológicamente se le considera de núcleo final, marcación en el núcleo y sin caso morfológico en los nominales. El verbo muestra una morfología aglutinante y en algunos casos fusional, pues a través de un mismo prefijo se codifican las categorías de persona, número y función sintáctica.

En este trabajo se exploran y describen los mecanismos de cambio de valencia en seri bajo los presupuestos teóricos de Dixon y Aikhenvald (2000) y Haspelmath y Müller (2004). Se muestra que la lengua codifica morfológicamente las causativas y pasivas, estas últimas divididas en promocionales y no promocionales. También se muestra el caso de los aplicativos, para los cuales no se ha documentado la existencia de morfemas, sin embargo parece existir un conjunto de verbos que semánticamente conllevan la noción de un benefactivo y que contrastan con las formas verbales que aparecen en construcciones transitivas. Finalmente, se aborda el origen de los morfemas de cambio de valencia, es decir, se muestran las posibles rutas de gramaticalización a través de las cuales se han desarrollado los morfemas de pasiva y causativa en seri.

Los estudios descriptivos de Marlett (2010) sugieren que dichas construcciones están relacionadas con una morfología propia de las nominalizaciones y con una función de cláusula al mismo tiempo. No obstante, hasta ahora no conocemos una propuesta concreta que revise el estatus formal de dichas construcciones, i.e. a) si son verdaderas construcciones nominalizadas en función de cláusula, lo que implica que dichas estructuras son ambiguas entre SSNN y SSCC; b) si son nominalizaciones en función de argumento, lo que significa que son SSNN, o c) si son nominalizaciones espurias que proyectan un SC pleno.

Uno de los criterios más claros para determinar el estatus formal de las construcciones nominalizadas es verificar su valor proposicional, esto es, determinar si la construcción es una aserción que puede evaluarse por su correspondencia con una eventualidad (Johansson 2012, 2010), lo que conlleva la expresión de modo y aspecto en algún grado (cf. Bliss & Ritter 2008, Cinque 1999, Speas 2004) e implica que es posible la modificación por medio de adjuntos adverbiales (cf. Baker & Vinokurova 2009); o si, por el contrario, la construcción se corresponden con una entidad, i.e. denota propiedades de individuos o tipos de individuos, lo que implica que puede aceptar modificación adjetival y puede ser objeto de una relación de posesión (Johansson 2012).

A través de los criterios anteriormente señalados podremos determinar el estatus formal de las construcciones subordinadas del seri en el contexto de las cláusulas complejas. El resultado de este estudio tendrá repercusiones directas sobre el análisis de las cláusulas complejas del seri y sobre la comprensión de la morfología de la nominalización.

BIBLIOGRAFÍA

- Baker, Mark C. & Vinokurova, Nadya. 2009. "On agent nominalizations and why they are not like event nominalizations". *Language* 85: 517-556.
- Bliss, Heather & Ritter, Elizabeth. En prensa. "Speaker certainty, event realization, and epistemic modality in Siksiká Blackfoot".
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press.
- Johansson, Sara. 2010. "Phi-feature concord on Blackfoot relative clauses". *42nd Algonquian Conference*, Memorial University of Newfoundland.
- Johansson, Sara. 2012. "Relative clauses, or clause-sized nominalizations? A consideration of Blackfoot". *Working Papers of the Linguistics*, Circle of the University of Victoria 21(2), 1-15.
- Marlett, Steve. 2010. "The common complex sentence". *A Grammar of Seri* (borrador). Extraído el día 24 de junio del 2013 desde: http://www.und.nodak.edu/instruct/smarlett/Stephen_Marlett/GrammarDraft.html.
- Moser, Mary B. & Stephen A. Marlett. 2010. *Comcaac quih yaza quih hant ihiip hac: cmiique iitom - cocsar iitom - maricaana iitom (Diccionario Seri - Español - Inglés: con índices Español - Seri, Inglés - Seri y con gramática)*. Universidad de Sonora & Plaza y Valdes Editores.
- Speas, Margaret. 2004. "Evidentiality, logophoricity and the syntactic representation of pragmatic features". *Lingua* 114: 255-276.

¿Incorporación en la voz media en zapoteco del Istmo?

MARITZA ELENA ENRÍQUEZ LICÓN

El Colegio de México

maritzalycon@yahoo.com

La incorporación nominal se entiende como un proceso de formación de palabra por medio del cual se crea un verbo afijándole un sustantivo. El zapoteco del Istmo –una lengua de la familia otomangue hablada en el estado de Oaxaca– es una lengua que permite la incorporación nominal, como se ve en el verbo ‘preguntar’, que se compone de *rinaba* ‘pedir’ y *diidxa* ‘palabra’:

- (1) Gu-naba-diidxa-be naa [xi ra-caladxe’]
COMPL-pedir-palabra-3H 1SH qué HAB-suceder-hígado-1SH
‘Me preguntó qué quería yo.’ Ejemplo: Pickett *et al.*

Donde la palabra *nabe* ‘pedir’, ya lexicalizada en el verbo ‘preguntar’, puede ser usada de manera independiente:

- (2) laabe gu-naba-be xiga
3SH COMPL-pedir-3SH jícara
‘Él pidió una jícara.’

En el presente trabajo expondré el mismo fenómeno en el dominio de la voz media (reflexivos y recíprocos). En algunas instancias de uso de reflexivos en la lengua se aprecia la incorporación del sustantivo objeto al verbo, como en el ejemplo (4):

- (3) Maria ri-gi’bi’ lari
María HAB-lavar ropa
‘María lava la ropa.’

- (4) Maria ri-gi'bi'-lu
 María HAB-lavar-cara
 'María se lava la cara'

Una de las preguntas que trataré de contestar en este trabajo es: ¿Cómo podemos saber que se trata de una incorporación y no de una oración como (5)?

- (5) Maria ri-gi'bi' lu
 María HAB-lavar cara
 'María se lava la cara.'

La segunda cuestión a responder será: ¿Por qué algunos verbos incorporan al objeto y otros no? Una primera pista de que se trata de una incorporación y no una oración como (3) se ve en el siguiente ejemplo, tomado de Pickett *et al.* (2001):

- (6) z-aguibi-ná' ca ba'du' ca
 FUT-lavar-mano PL niño ese
 'Esos niños van a lavarse las manos.'

Este ejemplo es tomado del apartado sobre composición verbal; sin embargo, esto no es suficiente prueba; en el presente trabajo ahondaré sobre la incorporación en el uso de la voz media y se aclarará si se trata de incorporación o de oraciones del tipo de (5). Para lograr tal objetivo, se investigará si es posible tener oraciones como las siguientes:

- (7) Maria ri-gibi-be lu
 María HAB-lavar-3SH cara
 'María se lava la cara.'

O como (8):

- (8) Maria ri-gibi-be lu-be
María HAB-lavar cara-POS.3SH
'María se lava su cara.'

La hipótesis es que es posible tener incorporaciones nominales en el dominio de la voz media, y que la semántica juega un papel determinante a la hora de permitir o no incorporar un sustantivo.

REFERENCIAS

- Pickett, Velma B. *et al.* (2001) *Gramática Popular del Zapoteco del Istmo*. Segunda edición (electrónica). Instituto Lingüístico de Verano A.C. Centro de Investigación y Desarrollo Binnizá A.C. Tucson, Arizona, E.U.A.

The role of morphology in valency alternation phenomena*

MASAYOSHI SHIBATANI
Rice University

1. INTRODUCTION

Morphology plays an important role in linguistic analysis. In derivational morphology a morphological marking is taken as a sign flagging the secondary, derived status of the marked form in question vis-à-vis the unmarked counterpart. Morphological marking has also been considered integral to the definitions of syntactic constructions or the phenomena that those constructions represent. In the functional linguistic tradition efforts have been mounted in search of functional motivations for morphological complexity. But there remain general questions regarding the role of morphology such as what kind of morphology is functionally motivated and is meaningful in synchronic analysis.

This paper examines the role of morphology in valency alternation phenomena specifically addressing the questions of (i) whether morphology properly delineates and identifies the constructions for a particular phenomenon and should be included in the definition of the constructions in question, and (ii) whether morphology is always reliable in determining directions of derivation and of the derived status of the alternating forms. These are important questions especially in view of the recent trends in valency studies that tend to rely on morphological marking patterns, which are even considered viable typological features characterizing languages as either transitivity or detransitivizing (Nichols et al. 2004). Prompted by the uncritical reliance on morphology in some of these studies (see section 5 below), this paper attempts to assess the role of morphology by examining two types of valency alternation phenomena, namely applicative and transitivity alternations.

Applicative and transitivity alternations, which overlap to some extent, provide good test cases because there is a wide array of morphological patterns associated with these phenomena, ranging from those involving highly productive morphology to no morphology at all, with many intermediate types involving morphology of various

degrees of productivity. For example, while Balinese applicatives in general involve fairly productive morphology, the corresponding patterns found in English and Japanese lack morphology entirely. In German some applicative constructions require verbal morphological derivation while others do not. In Japanese, both the transitivity causative process and the intransitivizing passive formation involve highly productive morphology, but there is also morphology of limited productivity involved in transitive-intransitive verb pairs, which contrast with the labile patterns in English and some other languages, where verb pairs may have no morphological indication of the transitivity status of the verb, e.g., Japanese *ak-u* (intr. *open*) vs. *ak-e-ru* (tr. *open*), Japanese *katam-ar-u* (intr. *harden*) vs. *katam-e-ru* (tr. *harden*).

The first half of the paper is devoted to Balinese applicatives that challenge a number of assumptions made in the study of valency changing phenomena including (a) that verbs have a basic valency value characterizing them as intransitive, transitive, or ditransitive in their basic form, (b) that valency alternation is to be characterized in terms of increase or decrease in valency, and (c) that productive valency alternations are syntactic processes, which, for example, turn an intransitive clause into a transitive one or a transitive clause to an intransitive one. We go on to compare Balinese and English in our discussion of the role of morphology in indicating directions of derivation of alternating applicative constructions. In the second half of the paper our attention is turned to the transitivity alternations centering on Japanese transitive-intransitive pairs, many of which show different morphological marking patterns suggestive of directions of derivation. In the final section of the paper we offer a principle, the Principle of Functional Transparency, which pays a critical attention to the productivity of morphology and which captures a functional motivation for morphology.

2. BALINESE APPLICATIVES

Applicative conversion is generally defined or characterized as a syntactic process that increases valency. In the introduction to the book *Changing Valency: Case Studies in Transitivity*, the editors

R.M.W. Dixon and Alexandra Aikhenvald define applicatives, **under the heading of valency increase**, as follows, where S, A and O stand for the sole argument of an intransitive clause, the agentive argument of a transitive clause and the patientive argument of a transitive clause, respectively:

- (1) (a) Applicative applies to an underlying intransitive clause and forms a derived transitive.
- (b) The argument in underlying S function goes into A function in the applicative.
- (c) A peripheral argument ... is taken into the core, in O function.
- (d) There is some explicit formal marking of an applicative construction, generally by an affix or some other morphological process applying to the verb.

OR

- (a') Applicative applies to an underlying transitive clause and maintains transitivity, but with an argument in a different semantic role filling O function.
- (b') The underlying A argument stays as is.
- (c') A peripheral argument... is taken into the core, in O function.
- (d') The argument which was in O function is moved out of the core in the periphery of the clause...
- (e') There is some explicit formal marking of an applicative construction, generally by an affix or some other morphological process applying to the verb. (Dixon and Aikhenvald 2000:13-14).

The second type of applicative, characterized by (a')-(e') above, may also increase valency in that the derived applicative structure now requires both applied object in O function as well as the Patient argument, contrasting with the non-applicative counterpart, which has a Patient argument in O function with either an obligatory directional argument or an adjunct expressing an instrumental or other types of semantic role. Applicatives of this type may be

ditransitive constructions with two obligatory Object arguments contrasting with non-applicative monotransitive counterparts.

Valency increase is widely assumed to be a hall mark property of applicatives as evidenced by the categorization of applicatives by Haspelmath and Müller-Bardey (2004:1130-1135) as an object-adding process along with causativization, which is categorized as subject-adding. This and some other assumptions contained in the Dixon-Aikhenvald definitions of applicatives are challenged by Balinese, which points to an alternative characterization of applicatives with a central focus placed on the alignment patterns between O function and the role type, downplaying the importance of valency-increasing or object-adding effect as well as the role of morphological marking. In the new characterization of applicatives, valency increase is but a possible side effect of the alignment patterns imposed by applicativization rather than a defining property of the process. Before turning to these points, a brief description of the Balinese clause structure and an introduction of its applicatives are in order.

As in most Western Malayo-Polynesian and Formosan languages, transitive verbs in Balinese allow two coding patterns. As illustrated below, one pattern has an A argument aligned with the sentence-initial Topic relation (Actor-focus or AF constructions) and the other has an O or P argument aligned with the Topic (Patient-focus or PF constructions).

(2) AF construction

Tiang	nyepak	cicing=e. ¹
I	AF.kick	dog=DEF
'I kicked the dog.'		

(3) PF construction

Cicing=e	sepak	tiang.
dog-DEF	PF.kick	I
'I kicked the dog.'		

Notice that the AF construction is marked by an initial nasal consonant in the verb, which reflects the proto-Austronesian AF

marker *-um*, while the PF construction has an oral counterpart. In contrast to some other Western Malayo-Polynesian and Formosan languages, where the Object relation is not clearly delineated, the Object relation in AF constructions is a robust category in Balinese and can be borne by a definite Object. The Object nominal can also be made Subject/Topic of a passive construction. Indeed, it is the Object position that plays the central role in applicative phenomena in this language since the nature of the argument role aligned with this position determines the morphology of the two central applicative types of the language. Applicativization feeds the AF/PF alternation such that an applied Object may align with the Topic relation via P-focusing. In examples (4b) and (4c) below, the verbal suffix *-in* marks a locative applicative construction, which aligns a location nominal with the Object relation, as in (4b), which then alternates with a PF construction with the location nominal as the sentence topic, as in (4c).

(4) a. Intransitive (non-applicative)

Ia pules telung jam (di umah=ne anyar).
 s/he sleep three hour (in house=3SG.POSS new)
 ‘S/he slept three hours (in his new house).’

b. Transitive AF construction (via applicativization)

Ia mules-**in** umah=ne
 s/he AF.sleep-**GR.APPL** house=3SG.POSS
 anyar telung jam.
 new three hour
 ‘S/he slept three hours in his new house.’

c. Transitive PF construction (via applicativization)

Umah=e anyar pules-**in** ia
 house=3SG.POSS new PF.sleep-**GR.APPL** s/he
 telung jam.
 three hour
 ‘S/he slept in his new house for three hours.’

In the analysis of applicatives both within and across languages the Figure-Ground perceptual distinction posited in Gestalt

psychology proves useful. In terms of the thematic roles, the Theme corresponds to the Figure and represents an entity that is situated at a location or in a state or that moves from one location to another in physical space or from one state to another in the construal of a change-of-state as an abstract motion. The Ground is background against which a Figure is delineated and subsumes various locative expressions in language with respect to which a Figure expression is predicated as being located or moving. Locations can be both physical or human, and thus both so-called goal location (as in *John walked to **the station***) and human recipient (as in *John gave **Bill the book***) count as instances of the Ground. Balinese applicative morphology reflects this Figure-Ground distinction dividing applicative constructions into two types. The verbal suffix *-in* marks Ground=Object (GR=OBJ) applicative that aligns with Object a static location (corresponding to the prepositional expression *di* ‘at, in, on’ in non-applicative constructions), a goal location (*ka* ‘to’), a recipient (*ka* ‘to, for’), or a source location (*uli* ‘from’ or *sig* ‘from’). The suffix *-ang*, on the other hand, yields the Figure=Object (FIG=OBJ) applicatives, wherein an argument denoting an entity moving in physical or abstract space is aligned with Object. Figure subsumes a theme, an instrument in physical motion, and a causee construed as an entity undergoing an abstract motion from one state to another. Compare GR=OBJ applicative (4b) above with FIG=OBJ applicatives (5b) and (6b) below:

(5) a. Basic intransitive construction

lumur=e ento ulung.
 glass=DEF that PF.fall
 ‘The glass fell down.’

b. FIG=OBJ applicative

Tiang ng-ulung-**ang** lumur=e ento.
 I AF-fall-**FIG.APPL** glass=DEF that
 ‘I dropped the glass.’

(6) a. Basic GR=OBJ construction

Anak=e ento ng-lempag lalipi=ne (aji tungked)
person=DEF that AF-hit snake=DEF (with stick)
'The man hit the snake (with a stick).'

b. FIG=OBJ applicative

Anak=e ento ng-lempag-**ang**
person=DEF that AF-hit-**FIG.APPL**
tungked ka lalipi=ne.
stick to snake=DEF
'The man hit the stick against the snake/Lit. The man caused
the stick to hit (to) the snake.'

Notice that the above treatment of applicatives in terms of the alignment patterns holding between Figure/Ground and Object collapses traditional causativization and instrumental applicativization into a single construction of the FIG=OBJ applicative. The use of the same morphology for causativization and instrumental applicativization is seen not only in Balinese (the *-ang* suffix) but also in a fair number of other languages (e.g., Bantu and Australian aboriginal languages).²

The examples above illustrate the familiar types of applicatives that increase valency. However, there are two cases in Balinese that challenge the definition of applicativization as a valency-increasing process. The first case is where applicatives and the corresponding non-applicative constructions have the same number of arguments. Balinese has ditransitive verbs requiring two obligatory arguments. Like English, they allow two coding patterns. One, without applicative morphology, aligns a Figure (theme) argument with Object and codes a Ground (recipient/goal location) argument as a prepositional phrase. The other coding pattern yields the morphologically marked GR=OBJ applicative construction, in which a Ground argument is aligned with Object and a Figure argument coded as second Object. Compare (a) and (b) below:

(7) a. Basic FIG=OBJ construction

Tiang maang banyu ka celeng=e.
I AF.give scrap to pig=DEF
'I gave food scrap to the pig.'

b. GR=OBJ applicative construction

Tiang maang-in celeng=e banyu
I AF.give-GR.APPL pig=DEF scrap
'I gave the pig food scrap.'

(8) a. Basic FIG=OBJ construction

Anak=e ento ngirim buku=ne ka sekolah
person=DEF that AF.send book=DEF to school
'The man sent the book to the school.'

b. GR=OBJ applicative construction

Anak=e ento ngirim-in sekolah buku=ne.
person=DEF that AF.send-GR.APPL school book=DEF
Lit. 'The man sent the school the book.'

The above case represents Dixon and Aikhenvald's second applicative pattern mentioned earlier. This pattern, which I believe is fairly widespread across different languages, is really argument-realigning rather than valency-increasing, since the number of arguments remains the same in the two alternating patterns. The structures between the two patterns, however, are not entirely identical. The GR=OBJ construction is a ditransitive construction with two Objects, while in the FIG=OBJ construction, there is a single Object. In the double Object constructions, the status of the theme-bearing Object varies across different constructions and across different languages. Contrary to Dixon and Aikhenvald's description in (1d'), in some constructions/languages the double Objects are symmetrical in the sense that the two Objects both behave like the Object of a monotransitive sentence, e.g., both may become a Subject of a passive sentence, while in other constructions/languages, the theme-bearing Object is quite inert and much less like a direct Object as the Dixon-Aikhenvald's definition has it.

There are also bivalent intransitive verbs in Balinese that obligatorily call for two nominal arguments. They are intransitive in that the second argument is coded as a prepositional phrase rather than as an Object. These verbs also permit a transitive coding pattern via applicativization.

- (9) a. Bivalent intransitive construction
 Anak=e cenik ento menek ka gedebeg=e.
 person=DEF small that AF.climb to cart=DEF
 ‘The child climbed onto the cart.’
- b. FIG=OBJ applicative construction
 Ia menek-ang anak=e cenik ento
 s/he AF.climb-FIG.APPL person=DEF small that
 ka gedebeg=e.
 to cart=DEF
 Lit. ‘S/He loaded the child onto the cart.’
- (10)a. Bivalent intransitive construction
 Tiang sangsaya teken anak=e ento.
 I PF.distrust with person=DEF that
 ‘I distrust that man.’
- b. GR=OBJ applicative construction
 Tiang nyangsaya-in anak=e ento.
 I AF.distrust-GR.APPL person=DEF that
 ‘I distrust that man.’

While these applicatives are transitive, they do not increase valency in that they contain the same number of arguments as the non-applicative counterparts. But notice that both valency-increasing applicatives (see (4)-(6)) and non-increasing ones (see (7)-(10)) show exactly the same alignment patterns, where the suffix *-in* marks the GR=OBJ alignment and *-ang* the FIG=OBJ alignment, pointing to one of the central claims of this paper, namely that applicatives should be defined in terms of the change in argument alignment patterns rather than in terms of increase in valency. The cases studied above can still be characterized in terms of increase

in transitivity—from intransitive to transitive and from transitive to ditransitive. Such a characterization is insufficient to fully describe Balinese, however, because it also has a large number of verbs whose basic valency, and hence transitivity, is indeterminate.

One peculiar feature of the Balinese verbal lexicon, which is also seen in Bahasa Indonesia (Standard Indonesian) and perhaps other Indonesian languages of the Austronesian stock, is the existence of what Artawa (1994) and others call “precategorical” roots. While there are many verb roots that are associated with one (and rarely two) basic valency patterns without morphological marking, there are also a large number of roots that cannot be used as verbs without a derivational affix and, as such, whose valency value and the alignment pattern remain undetermined until a derivational affix is selected.³ Take the form *uruk* ‘learn/teach’. In order for this form to function syntactically, it must take the middle prefix *m(a)-*, or the applicative suffix *-in* or *-ang*, as below, so that neither its intransitive use nor its transitive use in either the AF form (11a) or the PF(zer) form (11b) is possible without these affixes.

(11) Underived *uruk* ‘learn/teach’

- a. *Tiang uruk (basa Inggeris).
 I learn (language English)
 ‘I am studying (English).’
- b. *Tiang ng-uruk basa Inggeris (ka anak=e
 I AF-learn language English to person=DEF
 cenik ento). (AF)
 small that
 ‘I am teaching English (to the child).’
- c. *basa Inggeris uruk tiang (ka anak=e
 language English PF.learn I to person=DEF
 cenik ento). (PF)
 small that
 ‘I am teaching English (to the child).’

(12) *m(a)*-middle derived form

Tiang **m**-uruk (basa Inggris).
I MID-learn (language English)
'I am studying/learning (English).'

(13) *-in* derived GR=OBJ applicative

a. Tiang ng-uruk-in anak=e cenik ento
I AF-learn-GR.APPL person=DEF small that
(basa Inggris). (AF)
(language English)
'I am teaching the child (English).'

b. Anak=e cenik ento uruk-in tiang
person small that PF.learn-GR.APPL I
(basa Inggris). (PF)
(language English)
'I am teaching the child (English).'

(14) *-ang* derived FIG=OBJ applicative

a. Tiang ng-uruk-ang basa Inggris (ka
I AF-learn-FIG.APPL language English (to
anak=e cenik ento). (AF)
person=DEF small that
'I am teaching English (to the child).'

b. Basa Inggris uruk-ang tiang (ka
language English PF.learn-FIG.APPL I (to
anak=e cenik ento). (PF)
person=DEF small that
'I am teaching English (to the child).'

Compare the above with the patterns shown by the non-precatatorial verb *tulis* 'write' below, where the AF (15a) and the PF form (15b) without a derivational affix are both grammatical.

(15) Underived *tulis* 'write'

a. Tiang nulis aksara Bali (di tembok=e)
I AF.write characters Balinese on wall=DEF

(aji pulpen). (AF)
 with pen
 ‘I wrote Balinese characters (on the wall) (with a pen).’

b. Aksara Bali tulis tiang (di tembok=e)
 characters Balinese PF.write I (on wall=DEF)
 (aji pulpen). (PF)
 (aji pulpen)
 ‘I wrote Balinese characters (on the wall) (with a pen).’

(16) *ma*-middle derived form

Aksara Bali ma-tulis (di tembok=e).
 characters Balinese MID-write (on wall=DEF)
 ‘Balinese characters are written (on the wall).’

(17) *-in* derived GR=OBJ applicative

a. Tiang nulis-in tembok=e aksara Bali
 I AF.write-GR.APPL wall=DEF characters Balinese
 (aji pulpen). (AF)
 (with pen)
 Lit. ‘I wrote the wall with Balinese characters (with a pen).’

b. Tembok=e tulis-in tiang aksara Bali
 wall=DEF PF.write-GR.APPL I characters Balinese
 (aji pulpen). (PF)
 (with pen)
 Lit. ‘I wrote the wall with Balinese characters (with a pen).’

(18) *-ang* derived FIG=OBJ applicative

a. Tiang nulis-ang pulpen=e aksara
 I AF.write-FIG.APPL pen=DEF characters
 Bali ka tembok=ne. (AF)
 Balinese to wall=DEF
 Lit. ‘I caused the pen to write Balinese characters to the wall.’

b. Pulpen=e tulis-ang tiang aksara
 pen=DEF PF.write-FIG.APPL I characters

Bali ka tembok=e. (PF)⁴

Baliense to wall=DEF

Lit. 'I caused the pen to write Balinese characters to the wall.'

Besides the verb root *uruk* 'learn' above, precatatorial roots include the following verbs: *edeng* 'show', *enjuh* 'give', *orah* 'say/tell', *selek* 'insert', *turuh* 'pour', *entung* 'throw', *engkeb* 'hide', and *payas* 'dress (someone)'. Many of these verbs are conceptually transitive, at least to speakers of languages like English, but in Balinese they lack basic valency and can function either as intransitive via *ma*-middle derivation or as transitive via either *-in* applicativization (GR=OBJ construction) or *-ang* applicativization (FIG=OBJ construction). There are also notionally monovalent precatatorials such as *kokohan* 'cough' and *sumpah* 'swear' that must be *ma*-derived for an intransitive use and *-in* or *-ang* derived if the verb permits a transitive use as in (20).

(19) a. *Anak=e cenik ento kokohan.
person=DEF small that cough
'The child coughed.'

b. Anak-e cenik ento ma-kokohan.
person=DEF small that MID-cough
'The child coughed.'

(20) a. *Ia nyumpah unduk Nyoman ka tiang.
s/he AF.swear about Nyoman to I
'S/he is swearing about Nyoman to me.'

b. Ia ma-sumpah unduk Nyoman ka tiang
s/he MID-swear about Nyoman to I
'S/he is swearing to me about Nyoman.'

c. Ia nyumpah-in tiang.
S/he AF.swear-GR.APPL I
'He is swearing to me.'

- d. Ia nyumpah-ang Nyoman teken tiang.
 he AF.swear-FIG.APPL Nyoman with I
1. 'He swears about Nyoman to me.'
 2. 'He makes Nyoman swear to me.'

The crucial point raised by these precategorial roots is that, despite their precategorial status, applicativized transitive constructions pattern exactly like valency-increasing applicatives (see (4)-(6) above) and transitivity-increasing applicatives (see (7)-(10)), and yet they cannot be characterized either as a valency- or transitivity-increasing processes due to the lack of basic valency associated with these roots.

We have now seen three types of applicatives in Balinese: those that increase valency, those that increase transitivity without increasing the number of arguments, and those that cannot be characterized in terms of increase in valency or transitivity. Yet, they all involve suffixes *-in* or *-ang*, indicating that they are a unified phenomenon. Indeed, they constitute a unified phenomenon if we look at the alignment patterns of Ground and Figure expressions. The *-in* applicative aligns Ground with Object, while the *-ang* applicative aligns Figure with Object. These alignment alternations are the essence of applicativization and thus constitute central, defining properties of this process rather than increase in valency or transitivity (or morphological marking—see below). Increase in valency is simply a side effect under the proposed understanding of applicatives. If the thematic frame of the verb contains all the relevant arguments, as in the case of verbs like GIVE and SEND in many languages, no valency increase is observed. In such a case, only the alignment of O function is altered (with an attendant change in the syntactic status of the relevant arguments). If the basic thematic frame does not include a Ground or Figure argument to be aligned with Object, then it is newly introduced via applicativization with a valency-increasing effect. Balinese presents a somewhat unusual case with precategorial verb roots, whose valency and alignment patterns are determined only via middle or applicative derivation, defying the characterization of these derivation processes as either valency decreasing or increasing.⁵

Balinese applicatives also defy treatment as a syntactic process. As seen earlier, Dixon and Aikhenvald (2000) characterize applicatives as syntactic processes that apply to an intransitive or transitive underlying clause, but Balinese precatatorial verb roots do not have a predetermined basic or underlying valence structure. In addition, there are two relevant phenomena that point to the lexical, as opposed to syntactic, derivation analysis of Balinese applicatives. First of these is that both *-in* and *-ang* applicatives do not freely apply to syntactic structures that meet the structural descriptions of the applicative rules as posited by Dixon and Aikhenvald. As seen above, the *ma*-middle derivation yields an intransitive construction, but it cannot be an input to the *-in* applicativization. Compare (21) and (22) below. (22a) has the same syntactic structure as a result of the *ma*-derivation as (21a), yet it cannot form an *-in* applicative construction.

(21) SIT (non-precatatorial *tegak*)

- a. Ia negak di kasur=e. (underived intransitive)
 s/he AF.sit on bed=DEF
 ‘S/he sat on the bed.’
- b. Ia negak-in kasur=e.
 s/he AF.sit-GR.APPL bed=DEF
 (*-in* derived FIG=OBJ construction)
 ‘S/he sat on the bed.’

(22) SIT CROSS-LEGGED (precatatorial *sila*)

- a. Ia ma-sila di kasur=e.
 s/he MID-sit.cross-legged on bed=DEF
 (*ma*-derived intransitive)
 ‘S/he sat cross-legged on the bed.’
- b. *Ia ma-sila-in kasur=e.
 s/he MID-sit.cross-legged bed=DEF
 ‘S/he sat cross-legged on the bed.’

The *-ang* applicative is also restricted so that it cannot apply to *-in* derived transitive structures. Compare (23a.b) and (23b.c) below:

(23) COVER (*rurub*)

- a. Ia ngerurub anak=e cenik ento aji sapat.
 s/he AF.cover person=DEF small that with blanket
 (Undersived transitive
 GR=OBJ construction)
 ‘S/he covered the child with a blanket.’
- b. Ia ngerurub-ang sapat ka anak=e
 s/he AF.cover-FIG.APPL blanket to person=DEF
 cenik ento.
 small that
 Lit. ‘S/he covered the blanket to the child.’

(24) PUT (*ejang*)

- a. Ia ng-ejang buku=ne (di meja=ne).
 s/he AF-put book=DEF (on table=DEF)
 (Undersived transitive
 FIG=OBJ construction)
 ‘S/he put down the book (on the table).’
- b. Ia ng-ejang-in meja=ne aji buku=ne.
 s/he AF.put-GR.APPL table=DEF with book=DEF
 (*-in* derived GR=OBJ
 construction)
 Lit. ‘S/he put the table with the book.’
- c. *Ia ng-ejang-in-ang buku=ne
 s/he AF-put-GR.APPL-FIG.APPL book=DEF
 ka/di meja=ne.⁶
 to table=DEF
 ‘S/he put the book on the table/Lit. S/he caused the book
 to put to/on the table.’

Besides these apparently morphological restrictions on applicative derivations, the fact that certain applicative forms have

idiomatic meanings different from the non-applicative counterparts indicates the lexical nature of applicative derivations. For example, the verb *tuut* means to copy someone's work, to imitate or to obey someone. The applicative form *tuut-in* means to obey or to emulate someone. *Pedih* means to be angry or to be angry at someone, while *pedih-in* means either to be angry at someone or to scold someone. *Gedeg* means to hate someone, but *gedeg-ang* means to be angry at someone. *Iget* means to remember someone, but *iget-in* means to recognize someone, to remind someone to do something, or to make someone remember something, whereas *iget-ang* means to make someone remember something or to remind someone to do something. Finally, *tegak di kursi* means 'to sit in a chair', but *tegak-in kursi*, in addition to the literal meaning of sitting in a chair, can mean to occupy a professional post.

The Balinese *-in/-ang* applicatives as lexical derivations yield a verb with specific argument alignment patterns. *Ang*-applicativization yields verbs with caused motion semantics that align a Figure argument with O function. It construes as caused motions both physical motions in space (see (5b), (6b), (9b) and others) and abstract motions of transfer as in (14), as well as metaphorical motions from one state to another, as in *putih-ang* 'whiten', *mati-ang* 'kill', etc., which are usually analyzed as change-of-state verbs. *In*-derivation, on the other hand, yields verbs that align Ground nominals with O function as may be used with surface-contact and fixing verbs.

3. THE ROLE OF APPLICATIVE MORPHOLOGY

The above treatment of Balinese applicatives as lexical derivation processes is in line with the recent trend in analyzing parallel constructions in English as lexical phenomena (Pinker 1989, Iwata 2006, 2008). Indeed, many Balinese applicative alternations find parallel counterparts in English, and also in Japanese to some extent, as the translations below show:

(25) a. *-ang* applicative FIG=OBJ construction

Ia menek-ang somi=ne ka gedebeg=e
s/he AF.load-FIG.APPL hay=DEF to cart=DEF
'S/he **loaded the hay** onto the cart.'

b. *-in* applicative GR=OBJ constructions

Ia menek-in gedebeg=e somi
s/he AF.load-GR.APPL cart=DEF hay
'S/he **loaded the cart** with hay.'

(26) a. Underived FIG=OBJ construction

Guru=ne ngirim buku=ne ka anak=e
teacher=DEF AF.send book=DEF to person=DEF
cenik.
small
'The teacher **sent the book** to the child.'

b. *-in* applicative GR=OBJ construction

Guru=ne ngirim-in anak=e
teacher=DEF AF.send-GR.APPL person=DEF
cenik buku=ne.
small book=DEF
'The teacher **sent the child** the book.'

(27) a. Underived GR=OBJ construction

Ia ng-lempag lalipi-ne aji tungked
s/he AF-hit snake=DEF with stick
'S/he **hit the snake** with a stick.'

b. *-ang* applicative FIG=OBJ construction

Ia ng-lempag-ang tungked ka lalipi=ne.
s/he AF-hit-FIG.APPL stick to snake=DEF
'S/he **hit the stick** against the snake.'

(28) a. Underived GR=OBJ construction

Ia ngecet tembok=e aji cat pelung
s/he AF.paint wall=DEF with paint blue
'S/he **painted the wall** with blue paint.'

‘Kare=wa **kabe=o** aoi penki=de nutta.’
 he=TOP wall-ACC blue paint=with painted
 (Japanese translation)

b. *-ang* applicative FIG=OBJ construction

Ia ngecet-ang cat pelung ka tembok=e.
 s/he AF.paint-FIG.APPL paint blue to wall=DEF
 ‘S/he **painted blue paint** on the wall.’

‘Kare=wa aoi **penki=o** kabe=ni nutta.’
 he=TOP blue paint=ACC wall=to painted
 (Japanese translation)

These parallel patterns between Balinese, on the one hand, and English and Japanese, on the other, raise an interesting but difficult question, detailed below, about applicative morphology. In fact, the same question can be asked within Balinese as well since the language has one or two verbs that do not require morphology in either the GR=OBJ or the FIG=OBJ pattern. There are two verbs meaning to ‘give’ in Balinese. One is *baang* ‘give’ and the other is precatatorial *enjuh* ‘give’. The former is interesting because it can be used in both FIG=OBJ and GR=OBJ patterns without morphology when the recipient is human. But it requires *-in* for the GR=OBJ coding pattern when the recipient is non-human. In the case of precatatorial *enjuh*, the *-in/-ang* morphology needs to be invoked in fixing the valency and the coding pattern.

(29) a. Underived FIG=OBJ construction

Guru=ne (nge-)maang buku ka anak=e
 teacher=DEF (AF-)AF.give book to person=DEF
 cenik ento.
 small that
 ‘The teacher gave the book to the child.’

b. Underived GR=OBJ construction

Guru=ne (nge-)maang anak=e cenik ento buku.
 teacher=DEF (AF-)AF.give person=DEF small that book
 ‘The teacher gave the child the book.’

(30) a. Underived FIG=OBJ construction

Tiang maang banyu ka celeng=e.
I AF.give scrap to pig=DEF
'I gave the food scrap to the pig.'

b. *-in* applicative GR=OBJ construction

Tiang maang-in celeng=e banyu
I AF.give-GR.APPL pig=DEF scrap
'I gave the pig food scrap.'

(31) a. Guru=ne ng-enjuh-ang buku ka anak=e
teacher=DEF AF-give-FIG.APPL book to person=DEF
cenik ento.

small that

'The teacher gave the book to the child.'

b. Guru=ne ng-enjuh-in anak=e cenik
teacher=DEF AF=give=GR.APPL person=DEF small
ento buku.

that book

'The teacher gave the child a book.'

The question is two-fold: (i) whether or not the morphologically unmarked patterns (e.g., (29a,b)) should be considered an applicative alternation, and (ii) whether or not morphology accurately indicates the direction of derivation and marks the derivational status of the forms in question, e.g., whether or not morphologically marked forms are in some sense cognitively complex compared to the unmarked counterparts. The same question in a cross-linguistic perspective is: (i) whether the English and Japanese constructions without derivational morphology, as seen in the translations for (25)-(28), should be considered instances of the applicative alternation, and (ii) whether or not one of the pair should be derived from the other member even in the absence of morphology. If the answer to (ii) is positive, then we need to ask how the direction of derivation is to be determined; e.g., following the morphological derivational patterns in Balinese or some other languages? A more general question

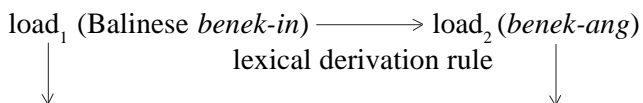
here is the meaning or the role of morphology when parallel patterns may be achieved with or without morphology.

As for question (i), Dixon and Aikhenvald would answer that those without morphology should not be considered applicative because their definitions include a stipulation that there be “some explicit formal marking of an applicative construction” (see (1)). But considering Balinese forms (25a.b) as displaying an applicative alternation but not the parallel English forms, for example, would miss an obvious parallelism between the (a) versions and the (b) versions in the two languages. Indeed, not treating the English translation forms for the examples (25)-(31) as applicative alternations on the account that there is no morphology is like not treating the English verb *kill* as causative because there is no causative morphology involved in it. Just as valency- or transitivity-increase should not be part of the definitions of applicatives, morphology should not be stipulated in the definitions of applicatives.

As for question (ii), whether a form should be treated as derived even in the absence of morphology, there is a long tradition of permitting such interpretations under the term of “zero derivation”, where English nouns such as a (a) *play* and (the) *walk*, for example, are said to be derived from verbs, as suggested by the term “deverbal nouns”. Unfortunately current treatments of this kind of derivation do not generally make it explicit whether the derivation is meant to be a historical process or whether it is meant to capture a particular cognitive character of deverbal nouns.

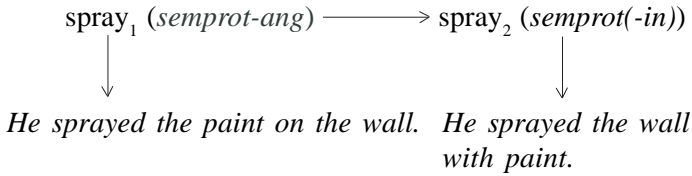
As for the English applicatives paralleling the Balinese patterns, Pinker (1989) offers a zero-derivation analysis, under the term “locative alternation”, deriving either a GR=OBJ or FIG=OBJ construction from the other alternate coding pattern via lexical derivation rules, as rendered diagrammatically below:

(32) a. “container-oriented” (GR=OBJ) verbs; *load*, *pack*, *cram*, *crowd*...



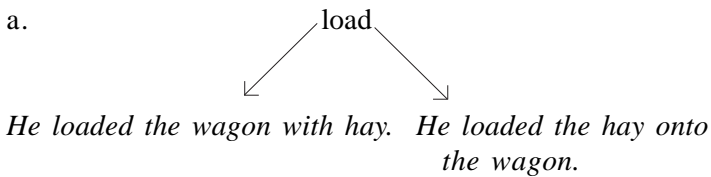
He loaded the wagon with hay. *He loaded the hay onto the wagon.*

- b. “content-oriented” (FIG=OBJ) verbs: *spray*, *smear*, *pile*, *scatter*...

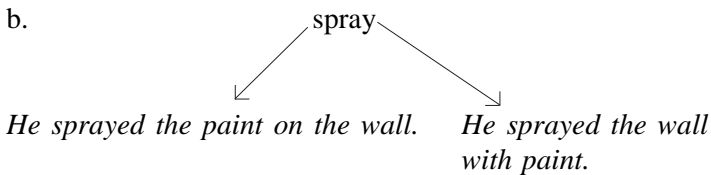


Pinker’s zero-derivation analysis has been challenged recently by a number of practitioners of Construction Grammar, *inter alia* by Goldberg (1995) and Iwata (2006, 2008), who reject the account of the English applicative patterns in terms of lexical derivation rules and instead propose directly linking a single form of the relevant verb to the two constructions, as below:

- (33) a.



- b.



Concerning the criterion for derivation, Iwata (2006, 2008) is not explicit but appears to rely on morphology, so that he would analyze only morphologically marked forms as derived from the unmarked counterparts, but not forms lacking in any morphology indicating direction of derivation. This position can be surmised from his (2006) treatment of the German pair of FIG=OBJ and GR=OBJ construction with *spritzen* ‘spray’ and *bespritzen*, for which Iwata posits a derivation from the unmarked form to the marked counterpart.

- (34) a. Die Randalierer spritzen Farbe auf
 the vandals spray paint onto
 das Auto. (FIG=OBJ)
 the car
 ‘The vandals spray paint onto the car.’
- b. Die Randalierer *be*-spritzen das Auto mit
 the vandals spray the car with
 Farbe. (GR=OBJ)
 paint

(35) [spritzen]→[be-spritzen] (Iwata 2006: 109)

The following quote from Iwata (2008) on Japanese applicative patterns also suggests that he would recognize both derivational and non-derivational analyses of applicatives based on morphological marking:

- (36) “the fact that some Japanese verbs enter into the alternation without any morphological changes, along with *-tsukusu* suffixation, means that both types of alternation [ones without derivation and ones with derivation] may co-exist in one and the same language, which in turn indicates that it is not necessary to collapse the two types of alternation into one type by brute force [as in Pinker’s (1969) zero-derivation analysis].” (Iwata 2008:158)

It is rather surprising that linguists in general tacitly follow morphological indications without asking whether morphology is a reliable indicator for deriving one form from another and without seeking empirical support for a morphology-based analysis.⁷ Those who allow zero derivation obviously consider the distinction between word derivation and morphology a relative one, but then the burden of proof on them is even greater—what evidence is there for the derived status of morphologically unmarked forms? In the balance of this paper I would like to explore the role of morphology in valency alternations seeking answers to some of the questions posed in the

introduction, such as what kind of morphology is functionally motivated and what kind is less meaningful in synchronic analysis.

4. WHEN DOES MORPHOLOGY COUNT AND WHEN DOES IT NOT?

My studies in this area have been informed by insights garnered in the long, if not always mainstream, functional linguistic tradition. Some notable quotes from this tradition are:

(37) “The more economical or more abundant use of linguistic means of expressing a thought is determined by the need... Everywhere we find modes of expression forced into existence which contain only just so much as is requisite to their being understood.” (Paul 1880)

(38) “the length of a word tends to bear an inverse relationship to its relative frequency” (38)
“The magnitude of complexity of speech-configuration... reflects also in an inverse way... the extent to which the category is familiar in common usage.” (272) (Zipf 1935)

While these and more recent functional grammarians and typologists (e.g., Haiman 1985 and Dixon 2000) lay greater importance on the physical form of linguistic expressions, my approach to morphology has been more functional in that the notion of productivity and its cognitive import play a far more important role than formal difference in size and complexity. For example, recent studies of causative constructions reveal that morphology plays different roles along a continuum of the direct- vs. indirect meaning depending on its productivity, going beyond traditional distinctions in terms of lexical, morphological, and syntactic/periphrastic form. Based on an assumed correlation between low frequency of occurrence of indirect causative situations due to their complexity (and difficulty in bringing them about) and a low degree of familiarity with less frequently occurring situations on the part of speaker, I once proposed the following principle to account for the correlation between the formal dimension (the lexical-

morphological-periphrastic continuum) and the semantic dimension (the direct-sociative-indirect continuum) of causative constructions (see also Shibatani and Pardeshi 2002):

(39) **Principle of functional transparency**

Less familiar or unusual situations require functionally more transparent coding.

- Productive morphology, where the form-meaning relationship is easily discernible, is functionally more transparent than irregular morphology or no morphology.
- Periphrastic expression with a clearly distinguishable word form is functionally more transparent than morphological expression in terms of affixation or inflection.

This principle, which is in need of some refinement (see below), is consistent with the thinking in recent functionally-oriented studies of morphology. For example, Haspelmath and Müller-Bardey (2004) point out that “[f]rom this [functionalist] perspective, valence-changing morphemes serve to express an unusual or marked view (or construal) of the event expressed by the predication.” These studies give an important empirical underpinning to the role of morphology in terms of usage pattern, for they predict that functionally transparent forms will have lower text frequency than functionally opaque forms. This can be easily demonstrated by checking the text frequency of lexical causatives and unproductive morphological causatives, on the one hand, and highly productive morphological causatives, on the other, as I tried once. My 2004 Google internet search yielded the following counts of Japanese causatives:

(40a)	Unproductive (functionally less transparent)	Productive (functionally more transparent)
	<i>koros-u</i> 464,000	<i>sin-ase-ru</i> 3,960
	‘kill’	‘cause to die’
	<i>tom-e-ru</i> 624,000	<i>tomar-ase-ru</i> 832
	‘stop’	‘cause to stop’

<i>mi-se-ru</i>	930,000	<i>mi-sase-ru</i>	3,860
‘show’		‘cause to see’	
<i>huku=o ki-se-ru</i>	6,030	<i>huku=o ki-sase-ru</i>	424
‘put the clothes on (someone)’		‘make someone put on the clothes’	

(-u/-ru are present-tense indicative suffixes)

The more controlled 65,479,503-word corpus (NINJAL-LWP corpus) of the National Institute for Japanese Language and Linguistics in Tokyo corroborates the above findings:

(40b)	Unproductive	Productive
	<i>koros-u</i> 5,881	<i>sin-ase-ru</i> 159
	‘kill’	‘cause to die’
	<i>mi-se-ru</i> 7,547	<i>mi-sase-ru</i> 84
	‘show’	‘cause to see’
	<i>ki-se-ru</i> 503	<i>ki-sase-ru</i> 12
	‘dress (tr)’	‘cause to wear (clothes)’

It is clear from the above that the productive, hence functionally transparent, suffix *-(s)ase* marks those indirect causative expressions that have low text frequency, whereas the direct causative forms marked by the unproductive, functionally less transparent, suffixes *-se* and *-e* occur as frequently as the lexical causative *koros-u* ‘kill’.

In view of the systematic patterning between morphology and argument alignment in the Balinese *-in/-ang* alternations, it would be highly interesting to see whether the direction of derivation indicated by morphology in any way correlates with the usage patterns of these applicative forms. There are two considerations in pursuing this question. One is that while there is some degree of productivity, *-ang/-in* alternations are lexically governed and are not entirely productive unlike the Japanese causative suffix *-(s)ase* seen above. The second, more practical problem is that there is no readily usable electronic corpus of spoken Balinese available at the moment. Instead, I searched Google for the corresponding applicative suffix forms in Bahasa Indonesia (Standard Indonesian)

to see if there are lopsided frequency patterns in the use of the morphologically marked forms and their corresponding unmarked forms. The cursory search revealed the following patterns for these forms:

(41) Basic GR=OBJ form	-kan derived FIG=OBJ form
<i>mengikat</i> 6,740,000 'tie'	<i>mengikat-kan</i> 430,000
<i>menikam</i> 1,040,000 'stab'	<i>menikam-kan</i> 24,500
<i>memukul</i> 3,940 'hit'	<i>memukul-kan</i> 44

(forms given in AF form)

(42) -i derived GR=OBJ form	Basic FIG=OBJ form
<i>mengirim-i</i> 293,000 'send'	<i>mengirim</i> 35,000,000
<i>melempar-i</i> 536,000 'throw'	<i>melempar</i> 3,820,000
<i>menanam-i</i> 192,000 'grow'	<i>menanam</i> 7,560,000

It is clear from the above counts that morphologically derived forms are far less frequently used than their corresponding basic verb forms, indicating that morphology here positively correlates with usage patterns. The situation, however, is less straightforward when both GR=OBJ and FIG=OBJ forms are morphologically marked.

(43) -i derived GR=OBJ form	-kan derived FIG=OBJ form
<i>memuat-i</i> 60,000 'load'	<i>memuat-kan</i> 1,170,000
<i>menawar-i</i> 5,680,000 'offer'	<i>menawar-kan</i> 75,800,000
<i>mengalir-i</i> 274,000 'flood'	<i>mengalir-kan</i> 2,740,000

If morphology accurately reflected usage patterns, we would expect these morphologically equipollent pairs to show either random or balanced frequency patterns. If the pattern in (43) represents the general picture for equipollent pairs, then we might be seeing a situation where morphology does not correlate with usage patterns. That is, for those verb roots whose role alignment is basically oriented either to GR=OBJ or to FIG=OBJ, the morphologically unmarked-marked contrast accurately reflects the basic/derived distinction, but with many other verb roots, morphological marking simply does not reflect the basic vs. derived distinction, due to morphological constraints. In the case of Balinese and Indonesian, precategorical verb roots impose a requirement that both alternant alignment patterns be morphologically marked, yielding patterns like (43), which might obscure the actual basic/derived contrast. In English there is no morphology associated with applicative alternations, again hiding a possible basic/derived contrast.

To summarize our findings from the admittedly very crude preliminary survey above, we note first that for pairs of unmarked and marked forms, morphology indicates a direction of derivation such that the unmarked forms represent the normal pattern of event construal, while the marked counterparts represent the alternate, unconventional construal. Verbs are divided into two basic groups based on their semantics. Verbs of surface-contact (*lempag* 'hit', *tundik* 'touch', etc.) and fixing (*tegal* 'tie', *pacek* 'nail', *elim* 'glue', etc.) are Ground-oriented in that they construe Ground as representing an element of greater cognitive saliency than Figure, aligning the former with Object. The Balinese suffix *-ang* and the Indonesian *-kan* suffix mark an alternate unconventional construal that accords greater cognitive saliency to Figure than to Ground. For caused-motion verbs, the above construal pattern is reversed in that the normal construal takes Figure as cognitively more salient than Ground, aligning the former with Object so that the FIG=OBJ construction is basic. These verbs allow an alternate event construal, where Ground is accorded higher cognitive saliency than Figure, resulting in a GR=OBJ alignment, but at the cost of morphological complexity in the form of *-in* (Balinese) or *-i* (Indonesian) suffixation.

From a morphological point of view, the most interesting case is the equipollent pattern seen in (43) above. Morphology here plays the important grammatical role of marking the alignment patterns, *-i* (or Balinese *-in*) highlighting the GR=OBJ alignment and *-kan* (Balinese *-ang*) the FIG=OBJ alignment. However, morphology does not here mark a difference in derivational status, since both forms are marked. Yet, the frequency patterns are skewed, in fact, in a way highly similar to the other morphologically distinguished patterns in (41) and (42). Indeed, (42) and (43) show a high degree of parallelism, with the forms for FIG=OBJ alignment in the right column far outnumbering the corresponding GR=OBJ forms in the left. If this limited data means anything, the *-kan* marked forms in (43) represent the basic alignment pattern, as do the unmarked forms in (42); both groups of verbs take the FIG=OBJ alignment to be basic, despite the difference in morphological marking patterns. This is an interesting case, if true. In one situation, where verb pairs show a marked/unmarked marking contrast, morphology correlates with the usage pattern, while in another situation, where there is no marking contrast, morphology is less reliable in assessing the cognitive status of alternate syntactic patterns.

Turning now to the controversy over English applicative alternations, here also there is no morphological contrast between GR=OBJ and FIG=OBJ alignment patterns. Interestingly enough, Iwata (2008)'s manual survey of usage patterns reveals a skewing similar to (43), but this time in both directions—the number in the square brackets indicate the number of additional occurrence of the form with the preposition in the parentheses.

(44)	GR=OBJ	FIG=OBJ
	<i>spray</i> 82 [+29] (with)	6[+1] (onto) 1[+1] (onto) 14[+6] (on) 9 (into) 25[+3] (over)
	<i>smear</i> 73 (with)	33[+3] (on) 3 (onto)

<i>pile</i>	121 (with)	60[+1] (on) 6[+3] (onto)
<i>scatter</i>	65 (with)	167 [+8] (over) 60 (around) 30 (about)
<i>spread</i>	124 (with)	204 (on) 91(over)

(Iwata 2008:15-16)

Iwata's findings above are extremely interesting in that they suggest (i) that these verbs may be associated with a basic orientation, justifying a derivational analysis that would reflect the usage patterns, despite lack of morphology, and (ii) that Pinker (1989)'s derivational analysis, however, might be incorrect in that the directions of derivation contradict the usage patterns in many cases. For example, Pinker analyzes *spray*, *smear*, and *pile* as having the FIG=OBJ alignment as basic and deriving the GR=OBJ alignment pattern (see (32b) above), whereas the usage patterns of these verbs seen in (44) above suggest the opposite. Obviously, more research is needed to settle the controversy between the derivational (e.g., Pinker 1989) and the non-derivational analysis (e.g., Iwata 2006, 2008) of English applicative alternations.

5. TRANSITIVE-INTRANSITIVE PAIRS

Languages display various patterns of morphological marking for verbs entering into transitive-intransitive valency alternations. Particularly interesting here are situations where two languages show opposite marking patterns. For example, according to Matsuse and Kiryu (2010:38), the direction of derivation of morphological derivation for certain transitive-intransitive verb pairs is opposite in the Tibeto-Burman language Newari and Japanese, as illustrated below:

(45)	Newari		Japanese
(a)	<i>phyene</i> ← <i>byene</i>		<i>hodok-u</i> → <i>hodok-e-ru</i>
	‘untie (tr) ‘untie (intr)’		‘untie (tr) ‘untie (intr)’
	<i>ta:châyê</i> ← <i>ta:jyâyê</i>		<i>war-u</i> → <i>war-e-ru</i>
	‘break (tr) ‘break (intr)’		‘break(tr) ‘break(intr)’
	<i>khuye</i> ← <i>guye</i>		<i>sak-u</i> → <i>sak-e-ru</i>
	‘tear (tr) ‘tear (intr)’		‘tear(tr) ‘tear (tr)’
(b)	<i>chuwaeke</i> ← <i>chway</i>		<i>yak-u</i> → <i>yak-e-ru</i>
	‘burn (tr) ‘burn (intr)		‘burn (tr) ‘burn (intr)
	<i>fwake</i> ← <i>fwaye</i>		<i>tog-u</i> → <i>tog-ar-u</i>
	‘sharpen (tr) ‘sharpen (intr)’		‘sharpen (tr) ‘become pointed’

Here again, the co-authors judge the direction of derivation solely on the basis of morphology. They believe that the Newari transitive forms in (45a) are derived from intransitive because they are traceable to the causative formation involving the proto-TB causative prefix **s-*, whose reflex is seen as an aspiration in modern Newari forms. The transitive forms in (45b) contain a clearer causativizing *-k* suffix, which is a productive causative morpheme in the contemporary language. On the other hand, in the Japanese counterpart pairs, the intransitive verbs invariably have an extra marker not seen in their transitive versions. The obvious question we wish answered in the context of this paper is whether the morphology in (45) really means anything or what the real meaning of the posited directions of derivation is.

Along with Vladimir Nedjalkov’s works dating back to the 1960’s (e.g., Nedjalkov and Sil’nickij 1969/1973), Jacobsen (1982/1992) is a seminal work that examines the extra-grammatical meaning of morphological marking in transitive-intransitive verb pairs. Dealing with pairs of morphologically related transitive and intransitive verbs in Japanese, he tells us that “[c]ertain types of change are perceived as normally occurring of their own accord or as being brought about by an entity in itself, while others are perceived as normally being brought about under the influence of some outside entity” and gives two tables of transitive-intransitive verb pairs, one table listing pairs of verbs whose intransitive forms

contain the extra *-e* formative and the other listing pairs with the opposite marking pattern between transitive and intransitive members (Jacobsen 1992:11, 76-77). Jacobsen's point is that unmarked transitives denote changes "perceived as normally being brought about under the influence of some outside entity" (see (46) below) and the unmarked intransitives represent "types of change...perceived as normally occurring of their own accord" (see (47) below), suggesting that the *-e* formative marks the types of changes opposite to these normal perceptions of events.

If morphology and our world view, as described by Jacobsen, were connected in a straightforward manner, the opposite patterns of morphological marking between Newari and Japanese shown in (45) would have an interesting implication for human cognition. Jacobsen, of course, is fully aware that morphology and our world view are not connected straightforwardly, noting the possibility that historical changes may obscure the connection (see Jacobsen's paper in this volume on this and related issues). What is lacking in Jacobsen's work, however, is a discussion of when morphology counts and when it does not and empirical support for his claims. That is, a general question remains as to whether the morphological patterns between transitive and intransitive verbs in modern Japanese (and also in other languages) have synchronic relevance. I, therefore, conducted a Google internet search to see whether the transitive-intransitive marking patterns in Japanese correlate with usage patterns as in the case of the productive causative morpheme seen above. Table (46) below lists Jacobsen's verbs, where the transitive forms are unmarked and the intransitive counterparts marked by *-e*. Since those events "perceived as normally being brought about under the influence of some outside entity" are likely to occur as causative/transitive events more frequently and are likely to be talked about more often in such terms, we would expect the unmarked transitive forms denoting them to be used more frequently than the corresponding morphologically marked intransitives representing the less expected non-causative, spontaneous framing of the relevant events.

(46) -Ø (Transitive)		-e (Intransitive)
(a) <i>kir-u</i> ‘cut’	46,000,000	<i>kir-e-ru</i> 25,200,000
<i>yak-u</i> ‘burn’	23,200,000	<i>yak-e-ru</i> 5,640,000
<i>hag-u</i> ‘peel off’	22,100,000	<i>hag-e-ru</i> 603,000
<i>yabur-u</i> ‘tear off’	7,070,000	<i>yabur-e-ru</i> 2,500,000
<i>war-ru</i> ‘break’	7,940,000	<i>war-e-ru</i> 6,390,000
(b) <i>nuk-u</i> ‘pull out’	25,500,000	<i>nuk-e-ru</i> 30,400,000
<i>or-u</i> ‘break off’	4,300,000	<i>or-e-ru</i> 6,160,000
<i>tur-u</i> ‘fish’	7,880,000	<i>tur-e-ru</i> 9,470,000
<i>sak-u</i> ‘split’	980,000	<i>sak-e-ru</i> 1,090,000

Contrary to our expectation, just about a half of Jacobsen’s verb pairs show that the marked intransitive forms occur more frequently than the unmarked transitive forms. Jacobsen’s second list fares better, where the unmarked forms are intransitive and the *-e* marked forms transitive; yet there are enough verb pairs of the same type outside Jacobsen’s list whose frequency patterns are counter to our expectation (see (47b)).

(47) -Ø (Intransitive)		-e (Transitive)
(a) <i>ak-u</i> ‘open’	373,000,000	<i>ak-e-ru</i> 32,200,000
<i>ukabu</i> ‘float’	22,000,000	<i>ukab-e-ru</i> 3,300,000
<i>sizum-u</i> ‘sink’	10,100,000	<i>sizum-e-ru</i> 1,750,000
<i>tizim-u</i> ‘shrink’	2,870,000	<i>tizim-e-ru</i> 1,350,000
<i>muk-u</i> ‘face’	17,900,000	<i>muk-e-ru</i> 11,900,000
<i>tat-u</i> ‘stand up’	49,500,000	<i>tat-e-ru</i> 34,500,000
<i>narab-u</i> ‘line up’	32,400,000	<i>narab-e-ru</i> 12,100,000
<i>susum-u</i> ‘advance’	26,800,000	<i>susum-e-ru</i> 9,730,000
<i>sirizok-u</i> ‘retreat’	2,300,000	<i>sirizok-e-ru</i> 793,000
<i>kurusim-u</i> ‘agonize’	12,600,000	<i>kurusim-e-ru</i> 2,210,000
<i>itam-u</i> ‘hurt’	7,590,000	<i>itam-e-ru</i> 645,000
(b) <i>tuk-u</i> ‘attach’	43,900,000	<i>tuk-e-ru</i> 75,000,000
<i>sodat-u</i> ‘grow’	15,300,000	<i>sodat-e-ru</i> 32,400,000
<i>kagam-u</i> ‘bend down’	162,000	<i>kagam-e-ru</i> 309,000
<i>yawarag-u</i> ‘soften’	1,400,000	<i>yawarag-e-ru</i> 2,870,000
<i>tat-u</i> ‘build up’	8,100,000	<i>tat-e-ru</i> 18,700,000

The above pattern is perhaps less surprising in view of the fact that the *-e* marking is seen in both intransitive and transitive verbs, and therefore the marking itself is not functionally transparent. A comparison of *tat-u/tat-e-ru* ‘stand up’ in the middle of (47a) and the homophonous, and no doubt etymologically related, *tat-u/tat-e-ru* ‘build up’ at the bottom of (47b), reveals both (i) that the \emptyset intransitive/*-e* transitive pairs may have had a better correlation in the past with the normal/unexpected situation types, and (ii) that there are cases where the verbal meaning dictates usage patterns, rendering the morphological marking irrelevant to text frequency.⁸

The intransitive verb *tat-u* ‘build up’ is one of those intransitive verbs that Kindaichi (1957) and Kawasaki (1971) characterize as expressing changes-of-state resulting from anterior actions or processes. As such, the intransitive events expressed by these verbs, dubbed “middle verbs” by these authors, presuppose the corresponding transitive events. The result is that the transitive use of the verb outranks the intransitive use:

(48) (a) \emptyset (Intransitive)	<i>tenazuk-u</i> ‘become 997 tamed’	<i>-e</i> (Transitive)	<i>tenazuk-e-ru</i> 155,000
	<i>totono-u</i> ‘become 1,110,000 orderly’		<i>totono-e-ru</i> 7,400,000
(b) <i>-e</i> (Intransitive)	<i>ni-e-ru</i> ‘become 241,000 cooked’	\emptyset (Transitive)	<i>ni-ru</i> 5,150,000
	<i>tak-e-ru</i> ‘(rice) gets 1,100,000 cooked’		<i>tak-u</i> 4,290,000
(c) <i>-ar</i> (Intransitive)	<i>uw-ar-u</i> ‘get planted’ 155,000	<i>-e</i> (Transitive)	<i>u(w)-e-ru</i> 4,490,000
	<i>kim-ar-u</i> ‘get decided’ 28,500,000		<i>kim-e-ru</i> 53,000,000

We see above three different morphological marking patterns, but, regardless of the morphology, the transitive versions are far more frequently used. This is a clear case where morphology does

not correlate with usage patterns; thus, there is little motivation for synchronically deriving transitive and intransitive forms following the morphological marking patterns.

In addition to these cases, where morphology does not correlate straightforwardly with usage patterns, there are situations where morphology counts more. These are cases where the transitivizing formatives are functionally more transparent due to their resemblance to the modern productive causative suffix *-(s)ase*. Irrespective of the morphological relationship to the intransitive counterparts, the transitive versions occur less frequently than the corresponding intransitive versions, though there are some exceptions to this tendency.

(49) (a)-Ø (Intransitive)		-as (Transitive)	
<i>kawak-u</i> ‘dry’	5,320,000	<i>kawak-as-u</i>	2,860,000
<i>tir-u</i>	11,300,000	<i>tir-as-u</i>	5,730,000
‘fall/scatter’			
<i>hukuram-u</i>	5,290,000	<i>hukuram-as-u</i>	739,000
‘inflate’			
<i>haram-u</i> ‘become pregnant’	618,000	<i>haram-as-u</i>	66,400
(b)-e (Intransitive)		-as (Transitive)	
<i>kar-e-ru</i> ‘wither’	2,930,000	<i>kar-as-u</i>	537,000
<i>tok-eru</i> ‘melt’	7,130,000	<i>tok-as-u</i>	2,860,000
<i>sam-e-ru</i> ‘awaken’	6,580,000	<i>sam-as-u</i>	3,470,000
(c)(-Ø/-e (Intransitive)		-as (Transitive)	
<i>mor-e-ru</i> ‘burn’	5,490,000	<i>mor-as-u</i>	4,680,000
(d)-r (Intransitive)		-s (Transitive)	
<i>noko-r-u</i> ‘leave’	73,600,000	<i>noko-s-u</i>	46,800,000
<i>mawa-r-u</i>	30,500,000	<i>mawa-s-u</i>	21,900,000
‘turn around’			
<i>wata-r-u</i> ‘cross’	22,600,000	<i>wata-s-u</i>	20,600,000
(e)-Ø (Intransitive/Transitive)		-(ka)se (Transitive/Ditransitive)	
<i>mi-ru</i>	3,030,000,000	<i>mi-se-ru</i>	58,400,000
‘see’		show’	

<i>ki-ru</i>	28,900,000	<i>ki-se-ru</i>	2,710,000
‘wear clothes’		‘put clothes on someone’	
<i>ne-ru</i>	85,400,000	<i>ne-kase-ru</i>	1,700,000
‘sleep’		‘put to sleep’	

Functional transparency in morphological marking is likely correlated with the historical depth of the markers; the older the marker is, the less functionally transparent it is due to possible layering of morphological processes and loss of productivity. Indeed, the least transparent morphological patterns involving the *-e* formative (see (46)-(47)) are generally believed to be the oldest transitivity alternation patterns by specialists of Japanese, some of whom further believe the functionally most transparent *-as* formative discussed above to be the most recently developed transitive marker, with a less restricted occurrence morphophonologically compared to other functionally similar formatives such as *-r*, *-s*, and *-e* (Kuginuki 1996 and Mabuchi 1999).⁹ This and other formatives discussed in this section are unproductive, hence lexicalized, in modern Japanese, and are generally considered to be part of their verb roots, despite morphological—not functional—transparency (cf. *war-u* ‘break (tr)’ vis-à-vis *war-e-ru* ‘break (intr)’, *tat-u* ‘stand (intr)’ vis-à-vis *tat-e-ru* ‘stand (tr)’, *mi-ru* ‘see (tr)’ vis-à-vis *mi-se-ru* ‘show’, etc.). Again, the difference in functional transparency due to a difference in productivity accounts for the low frequency of causatives involving the productive suffix *-(s)ase* compared to unproductive causative forms. Compare the following with the transitive/ditransitive causatives in the right-hand column in (49), especially the parallel forms in (49e).

- (50) Causatives with productive suffix *-(s)ase*
- | | | |
|-------------------|---------------------|---------|
| <i>ne-sase-ru</i> | ‘make sleep’ | 63,300 |
| <i>mi-sase-ru</i> | ‘make see’ | 295,000 |
| <i>ki-sase-ru</i> | ‘make wear clothes’ | 269,000 |

This brings us back to the Newari case briefly discussed at the beginning of this section. Contrary to the directions of derivation marked the same way by Matsuse and Kiryu (2010), the derivation

of the transitive forms in (45a) is only valid as a historical account, whereas the derivation of transitive forms in (45b) by the productive causative suffix *-k* is likely meaningful as a synchronic description; the two must be kept apart. In a similar vein, the function of the productive Newari causative *-k*, which freely attaches to various transitive verbs as well, is not comparable to the restricted function of the Japanese *-e* and *-ar* formatives in the right-hand column of (45b).

6. THE PRINCIPLE OF FUNCTIONAL TRANSPARENCY AGAIN

Before concluding this paper, let us return to the Principle of Functional Transparency discussed earlier. The principle, as phrased in (39), needs refinement in view of some of the applicative patterns examined earlier and the morphological patterns seen in transitivity alternations discussed above. With regard to applicative alternations, we have seen two cases where morphological marking patterns do not reflect possible basic/derived distinctions. One is where both GR=OBJ and FIG=OBJ alignment patterns are morphologically marked (see (43)), and the other is the English case where both patterns are unmarked. Transitivity alternations also exhibit situations where the functional difference is not indicated by morphological marking, either where both transitive and intransitive members of a pair are marked (see (49b-d) above), or unmarked, as in the case of English labile verbs. That morphological markedness and conceptual complexity are not entirely isomorphic has been widely observed (Croft 1990/2003). Morphological markedness theory demands only that a common-place, familiar concept not be formally more marked than the complex counterpart category. In other words, a familiar concept can be morphologically as marked or unmarked as the complex counterpart concept, but if there is a difference in morphological complexity, it is the complex concept that is associated with the marked morphological category. Taking this general situation into account, I propose to revise the Principle of Functional Transparency as follows:

(51) Principle of Functional Transparency (revised) A less familiar concept/experience/situation requires formal coding that is equal to or greater in functional transparency than that expressing a familiar concept/experience/situation in the relevant functional domain.

- Productive morphology, where the form-meaning relationship is easily discernible, is functionally more transparent than irregular morphology or no morphology.
- Periphrastic expression with a clearly distinguishable word form is functionally more transparent than morphological expression in terms of affixation or inflection.

To summarize the correlations, productivity is correlated with type frequency, where a construction type more widely instantiated (e.g., the English *-ed* past forms (*walked, killed, etc.*)) is more productive than the one instantiated by fewer forms (e.g., the English *-ew* past forms (*flew, threw, etc.*)). Familiarity of a concept/experience/situation is correlated with token frequency. We tend to talk more about familiar experiences than unfamiliar ones. Accordingly, words denoting a familiar concept/experience/situation are heard and used more frequently than those representing an unusual concept/experience/situation. The Principle of Functional Transparency demands functionally transparent coding for unusual experiences as a way to compensate for their unpredictability. If unusual, less familiar experiences add to conceptual complexity, then the Principle captures the relationship between grammatical coding and conceptual complexity. The key point here is the notion of “functionally transparent coding” rather than any kind of morphological or structural complexity. This point has not been made sufficiently clear in the past studies on the correlation between formal complexity and conceptual complexity.

7. CONCLUSION

Discussion and analysis of valency alternation phenomena, including applicative and transitive-intransitive alternations, have tended to be based on morphology. The importance attached to morphology is seen in both the definitions of the relevant phenomena/constructions and the analysis of the phenomena. This paper has examined the wisdom of uncritical reliance on morphology in both of these areas and has attempted to show that there are both meaningful and less dependable morphological patterns. Similar to the Dixon-Aikhenvald definitions of applicatives, the Leningrad/St. Petersburg typologists define voice as follows: “[Voice] is **a regular marking in the verb** of the correspondences between units at the syntactic level and units at the semantic level. In short, voice is a diathesis grammatically marked in the verb.” (Xolodoviè 1970 as quoted in Geniušienė 1987:42-53; emphasis added) These definitions are unnecessarily restrictive, resulting in the exclusion of those morphologically unmarked instances that share the essential syntactic and functional features of the relevant phenomena such as the English applicative alternations and various voice phenomena in isolating languages, where there is no grammatical marking in the verb.

Purely morphological analysis yields various types of word formatives, but not all of them have the same grammatical status. Some are historical relics, while others are productive and active in synchronic word formation processes. Talking about derivations purely based on morphology, as is often done in discussions of transitive-intransitive verb pairs, without ascertaining the productivity of the relevant formatives, risks lacking any synchronic relevance. This paper has attempted to illustrate these points by examining the correlation between morphological marking and usage patterns, which is one method of making morphological studies empirical. Admittedly, Google search results are not an entirely reliable indicator of usage patterns. But as Tables (40a) and (40b) show, Google search results do not seem to be off the mark entirely. If the present paper prompts further empirical research in this vein based on a better controlled and more reliable database, its purpose is fulfilled.

Notes

- * I am indebted to Wesley Jacobsen and Heiko Narrog as well as an anonymous reviewer for their comments useful in improving the content and the readability of this paper. This work was supported in part by the National Science Foundation grant BCS-0617198.
1. The Balinese examples used in this paper are those of the middle register Ordinary/Medium Balinese. There are, in addition, Low and High Balinese.
 2. The suffix *-ang* also marks benefactive applicatives. The relationship between them and the FIG=OBJ applicative (or causatives) is not as straightforward as that between instrumental applicatives and causatives. Just as the situation type [X CAUSE Y to HAVE Z] under the direct causative construal lexicalizes as [X cause-HAVE Y (the child) Z (a book)] in a fair number of languages, [X CAUSE Y to BUY Z], for example, may give rise to a benefactive expression [X cause-BUY Y Z]. English lexicalization incorporates the causative meaning component into a hosting verb giving rise to expressions like “X gives Y (the child) Z (a book)” and “X buys Y (the child) Z (a book)”, while many other languages realize the causative semantics as a causative or a Figure applicative affix, as in Ainu *kor-e* (have-CAUS) ‘give’ *nu-re* (hear-CAUS) ‘inform’ and in Balinese *tegul-ang* (tie-FIG.APPL), which permits either a causative reading (e.g., Lit. cause the horse to tie to the tree trunk > tie the horse to the tree trunk) or a benefactive construal (e.g., Lit. cause the man tie the horse to the tree trunk > tie the man the horse to the tree trunk/tie the horse to the tree trunk for the man).
 3. There are twenty seven precategorials in the seventy-some verbs in the list of the Leipzig valency project. See Shibatani and Artawa (forthcoming).
 4. Below, only AF versions of the relevant constructions will be given.
 5. Precategorials may be widespread among Western Malayo-Polynesian and Formosan languages, in many of which nouns often function as verb roots.
 6. The *-ang* applicativization here is functionally motivated, as it would have the effect of making an optional Ground argument obligatory. Compare (15a) and (18b).
 7. See various studies such as Nichols, et al. (2000) that talk about transitivity/detransitivizing or causativizing/anticausativizing solely in terms of morphology, disregarding the question of whether or not they are really synchronic processes (see below).

8. See Narrog (2007) on the correlations between morphological marking and frequency patterns in Old Japanese. He sees better correlations following the marking patterns in the OJ data he examined, pointing to the importance of taking a historical perspective into consideration in this type of research.
9. As for intransitivizing formatives, we expect the formative *-ar*, which resembles the passive morpheme *-(r)are* (*-(r)ar* in Old Japanese) to be more functionally transparent than other intransitivizing formatives.

REFERENCES

- Artawa, Ketut. 1994. *Ergativity and Balinese Syntax*. Ph.D. thesis. La Trobe University.
- Croft, William. 1990/2003. *Typology and Universals*. Cambridge: Cambridge University Press.
- Dixon, R.M.W. 2000. A typology of causatives: form, syntax and meaning. In R.M.W. Dixon and A. Y. Aikhenvald (eds.) 2000: 30-83.
- Dixon, R.M.W. and Alexandra Y. Aikhenvald (eds.). 2000. *Changing Valency: Case Studies in Transitivity*. Cambridge: Cambridge University Press
- Dixon, R.M. W. and Alexandra Y. Aikhenvald. 2000. Introduction. In R.M. W. Dixon and A. Aikhenvald (eds.) 2000: 1-29.
- Geniušienė, Emma. 1987. *The Typology of Reflexives*. Berlin: Mouton de Gruyter.
- Goldberg, Adele. 1985. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Haiman, John. 1983. Iconic and economic motivation. *Language* 59: 781-819.
- Haspelmath, Martin and Thomas Müller-Bardey. 2004. Valency change. In: G. Booij, C. Lehmann, and J. Mugdan, (eds.) *Morphology: A Handbook on Inflection and Word Formation*. Vol. 2. (Handbücher zur Sprach-und Kommunikationswissenschaft) Berlin: de Gruyter. 1130-1145.
- Iwata, Seizi. 2006. *A Lexical Constructional Approach to the Locative Alternation: with Special Reference to English*

- and Japanese. Research report for a Ministry of Education grant-in-aid for the years 2003-2005.
- Iwata, Seizi. 2008. *Locative Alternation: A Lexical-constructional Approach*. Amsterdam: John Benjamins.
- Jacobsen, Wesley. 1982. *Transitivity in the Japanese Verbal System*. Ph. D. Thesis, University of Chicago.
- Jacobsen, Wesley. 1992. *The Transitive Structure of Events in Japanese*. Tokyo: Kurosio Publishers.
- Kawasaki, Kiyoshi. 1971. Kokugo no chûsô dôshi [Middle verbs of Japanese]. *Dokkyô Daigaku Kyôyô Shogaku Kenkyû*. 5.
- Kindaichi, Haruhiko 1957. Toki, tai, sô oyobi hô [Time, voice, aspect and mood]. *Nihon Bunpô Kôza*. Tokyo: Meiji shoin.
- Kuginuki, Toru. 1996. *Kodai Nihongo no Keitaihenka* [Morphological changes of Old Japanese]. Osaka: Izumi Shoin.
- Mabuchi, Kazuo. 1999. *Kodai Nihongo no Sugata* [Figure of Old Japanese]. Tokyo: Musashino Shoin.
- Matsuse, Ikuko and Kazuyuki Kiryu. 2010. Newâru-go ni okeru jidôshi to tadôshi no taiô [Intransitive-transitive correspondences in Newar]. In Y. Nishimitsu and P. Pardeshi (eds.) *Jidôshi Tadôshi no Taishô*. Tokyo: Kurosio Publishers. 33-68.
- Narrog, Heiko. 2007. Nihongo jita dôshi-tsui no yûhyôseisa no dôkizuke [Motivating the markedness differences in the intransitive-transitive verb pairs in Japanese]. In M. Tsunoda, K. Sasaki and R. Shiotani (eds.) *Tadôsei no Tsûgengo-teki Kenkyû*. Tokyo: Kurosio Publishers. 295-306.
- Nedjalkov, Vladimir P. and Georgij G. Sil'nickij. 1969. Tipologija morfolozijskogo i leksijskogo kauzativov [Typology of morphological and lexical causatives]. In A. A. Xolodoviè (ed.), *Tipologija kauzativnyx konstrukcij*. Leningrad: Nauka. 20-60.
- Nedyalkov, Vladimir P. and Georgy G. Sil' nitsky. 1973. The typology of morphological and lexical causatives. In F. Kiefer (ed.). *Trends in Soviet theoretical linguistics*. Dordrecht: Reidel. 1-32.
- Nichols, Johanna, David A. Peterson and Jonathan Barnes. 2004. Transitivity and detransitivizing languages. *Linguistic Typology* 8(2). 149-211.

- Paul, Hermann. 1880. *Prinzipien der Sprachgeschichte*. Transl. into English by H.A. Strong as *Principles of the History of Language*, 1889; reprint of 8th edition 1970.
- Pinker, Steven. 1989. *Learnability and Cognition: The Acquisition of Argument Structure*. Cambridge, Mass.: MIT Press
- Shibatani, Masayoshi. 2002. A colloquium talk on the form of causative construction. Department of Linguistics, Rice University.
- Shibatani, Masayoshi and Prashant Pardeshi. 2002. The causative continuum. In M. Shibatani (ed.) *The Grammar of Causation and Interpersonal Manipulation*. Amsterdam: John Benjamins. 85-126.
- Shibatani, Masayoshi and Ketut Artawa. forthcoming. Balinese valency classes. In B. Comrie, et al. (eds.) *Valency Classes: a Comparative Handbook*. Berlin: Mouton de Gruyter.
- Zipf, George Kingsley. 1935. *The Psycho-Biology of Language: An Introduction to Dynamic Philology*. Boston: Houghton Mifflin Company.