

CASE SELECTION IN OLD AND NEW BASQUE*

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1. *Introduction*

It has been claimed that the theory of case is “one of the most central concepts in modern generative syntax” (Brandner and Zinsmeister 2003). The goal of a case theory is to predict how arguments of a predicate are morphosyntactically realized. Most theories today employ the concept of thematic role to identify arguments in a level of abstraction known as argument structure, and attempt to map these thematic/theta roles onto grammatical functions. These types of theories are known as mapping theories. However, a case theory should ideally make predictions about the relationship between theta roles, grammatical functions and the morphosyntactic case and its morphological realization. A theory describing this three-way relation is called a licensing theory (after Kiparsky 1997 and others). Most work in case theory could be best described as a mapping theory, taking for granted the relationship between structural cases and grammatical functions, such that morphological realization is overlooked. However, in this paper I hope to show that the morphological realization of a case is an important part of understanding case, and with the right theory, still predictable.

It is unfortunate that the morphological realization of cases has not been the focus of much recent research, leaving potentially many morphological generalizations unrecognized. The context in which I hope to shed light on such generalizations is case marking in four-place predicates. These are necessarily derived predicates, by adding an argument such as causativization of a ditransitive verb.

There is a substantial literature on causatives, much of which was inspired by Comrie (1976) who investigated the syntax of causative constructions cross-linguistically. Such works include Baker (1988), Cole (1976, 1983), Davies and Rosen (1988), Gerds (1984), Gibson (1980), Gibson and Raposo (1986), among others. However, few have included data from causativized ditransitive verbs. This omission is likely due to the relative rarity of this construction. Nedyalkov and Silnitsky noted that if a language has a causative, “it can be established that causative affixes are more productive in combination with [intransitive] verbs than with [transitive] verbs” (1973:7). There are languages that only allow intransitive verbs to causativize, but no languages where only transitive verbs

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are causativized. Typically, one could generalize that the more arguments you have in the base predicate, the harder it is to add a causer to that predicate. Velázquez-Castillo notes that in Guaraní the transitive-based causatives are found considerably less frequently than the intransitive-based causatives, constituting only 16 percent of all morphological causatives in the text she examines (Velázquez-Castillo 2002). Indeed, studies on causatives have recognized the need to distinguish the following types of verbs in order to determine how susceptible a verb will be to causativization (Shibatani 2002:6):

- (1) a. Inactive transitives
- b. Middle/ingestive verbs
- c. Active transitives
- d. Transitive verbs

Conspicuously absent from this list are ditransitive verbs. This is not surprising considering that many languages do not have ditransitive verbs, and of those that do and have a causative construction, many do not allow them to be causativized. However, Basque (isolate, southwestern Europe) does allow ditransitive verbs to causativize as illustrated by (2) and (3) (Donohue 2004, ex. 206).¹

- (2) *Ni-k pobre-ei diru-a ema-ten diet.*
 1SG-ERG poor-PL:DAT money-ABS give-IMP TNS.have.3PL:DAT.1SG:ERG
 “I give money to the poor.”

- (3) *Apaiza-k pobre-ei diru-a eman-araz-i zidan ni-ri.*
 priest-ERG poor-PL:DAT money-ABS give-CAUS-PRF TNS.have.1SG:DAT.PST 1SG-DAT
 “The priest made me give money to the poor.”

Four-place predicates, such as the one formed by causativizing a ditransitive verb as in (3) are rather unusual because there are no underived verbs which take four arguments (at once).² Causativized ditransitives are thus one way to force an extra argument into the argument structure. How languages cope with this can be quite revealing of case licensing principles.

Unfortunately very few descriptions of languages or studies of causatives include data of causativized ditransitives. The earliest notable exception to this is the work of Comrie (1975, 1976). However, Comrie’s study was primarily

¹ The following abbreviations are used throughout this paper: 1,2,3: First, second, third person, ABS: Absolutive, AUX: Auxiliary verb, CAUS: Causative morpheme, DAT: Dative, ERG, Ergative, IMPF, Imperfective, INSTR: Instrumental, LOC: Locative, PRF: Perfect, PL: Plural, SG: Singular, TNS: Tense marker.

² See Donohue (2004: 129-130) for further discussion of possible explanations for why languages do not have underived four-place predicates, given that there are verbs, like transaction verbs, with four conceptual arguments, any of which can be a structural argument.

concerned with what grammatical relation the causee will be assigned, rather than the morphosyntactic case with which it will be realized. Subsequent work on causatives has explored the syntax of causatives in greater detail (e.g. Baker 1988, Alsina 1997, among others). However, most of these studies are couched within a linking theory, where the association between thematic roles and grammatical functions is the primary concern. Those that do address the morphological case marking aspect of licensing theory seldom include data from four-place predicates. However, there are notable exceptions to this trend. In this paper I first present data from Basque causatives that will be the focus for my discussion of case. I then briefly summarize recent work by Joppen and Wunderlich (1995), Joppen-Hellwig (2000) and Donohue (2004). After comparing these approaches, I will then summarize the key generalizations and show how Donohue's approach can extend to explain the variation in Basque case marking.

2. Basque causatives

Basque (Euskara Batua) is an ergative isolate spoken in southwestern Europe. The Basque examples work as one might expect: when you add an argument, the case markers are assigned as they would for arguments of an underived verb with the same number of arguments. That is, the causativized intransitive verbs result in a case array that resembles a regular transitive case array, as shown in (4)–(6), and the causativized transitive verb results in a case array the same as for a ditransitive verb, as illustrated in (7) and (8). The causativized ditransitive is repeated in (9).

(4) **Intransitive [1-place predicate: ABS]**

Mikel joan da.

Mikel.ABS go.PRF TNS.be

“Mikel went.”

(Donohue 2004, ex. 194a)

(5) **Transitive [2-place predicate: ERG-ABS]**

Soldadu-ek haur guzti-ak hil zituzten.

soldier-PL:ERG child whole-PL:ABS kill.PRF TNS.PL:ABS.have.3PL:ERG.PST

“The soldiers killed all the children.”

(Donohue 2004, ex. 198a)

(6) **Causativized intransitive [=case array of 2-place pred.: ERG-ABS]**

Ama-k Mikel joan-araz-i du.

mother-ERG mikel.ABS go-CAUS-PRF TNS.have

“Mother made Mikel go.”

(Donohue 2004, ex. 194b)

In examples (4) – (6) we see that the addition of an argument to an intransitive verb (4) in Basque results in a case array (6) that resembles a regular two-place predicate (5). Below we see that the pattern is similar for causativization of a

transitive verb (7) which results in a case array that resembles a regular three-place predicate (8).

- (7) **Causativized-transitive [=case array of 3-place pred.: ERG-DAT-ABS]**
Herodes-ek soldadu-ei haur guztiak hil-araz-i zizkien.
 Herod-ERG soldier-PL:DAT child whole-PL:ABS kill-CAUS-PRF TNS.PL:ABS.3PL:DAT.PST
 “Herod made the soldiers kill all the children.” (Donohue 2004, ex. 198b)

- (8) **Ditransitive [3-place predicate: ERG-DAT-ABS]**
Ni-k pobre-ei diru-a ema-ten diet.
 1SG-ERG poor-PL:DAT money-ABS give-IMPV TNS.have.3PL:DAT.1SG:ERG
 “I give money to the poor.” (Donohue 2004, ex. 206a)

There is no prediction one could make for causativized ditransitives as there is no underived four-place case array for it to model. In Basque, we have the following:

- (9) **Causativized ditransitive [= 4-place predicate]**
Apaiza-k pobre-ei diru-a eman-araz-i zidan ni-ri.
 priest-ERG poor-PL:DAT money-ABS give-CAUS-PRF TNS.have.1SG:DAT.PST 1SG-DAT
 “The priest made me give money to the poor.” (Donohue 2004, ex 206b)

These effects of causativization on the case arrays in Basque can be summarized in the Table 1 below (after Joppen and Wunderlich 1995).

Verb type	Regular case array	Causativized case array
Intransitive	ABS_x	$ERG - ABS_x$
Transitive	$ERG_x - ABS_y$	$ERG - DAT_x - ABS_y$
Ditransitive	$ERG_x - DAT_y - ABS_z$	$ERG - DAT_x - SEM.DAT_y - ABS_z$

Table 1: Case arrays in Basque

3. Previous studies

There are three studies that have addressed these Basque data. While all three studies address issues relating to the case marking generalizations and are cast within similar case theoretic approaches, they differ in crucial ways that I highlight in the following subsections (see also Donohue forthcoming).

3.1 Theoretical preliminaries

The case theory used throughout this paper is Lexical Decomposition Grammar (LDG; Kiparsky 1997 and elsewhere; Wunderlich 1997 and elsewhere). Unlike most case theories which focus on the mapping between grammatical functions

and thematic roles, LDG is a theory of case licensing, capturing the ternary relation between thematic roles (arguments), grammatical functions or ‘abstract case’ and morphosyntactic (and morphological) case. LDG has constrained principles for relating levels of abstract case and morphosyntactic case by defining them both with the same two relational features [\pm H(ighest) R(ole)] and [\pm L(owest) R(ole)]. The theory captures generalizations and predications both about typologically diverse languages and highly complex phenomena within a specific language.

3.1.1 *Semantic form*. Following Bierwisch (1986 and elsewhere), LDG assumes a level of structure called semantic form (SF) which represents the grammatically relevant parts of a verb’s conceptual structure. It consists of minimally decomposed expressions formulated in predicate logic and expressed using lambda-categorial expressions. SF representations are thus constrained to two basic types: propositions, or *constants* and individuals, or *variables*. Consider the verb ‘show’.

(10) *show*: $\lambda z \lambda y \lambda x [x \text{ CAUSE } [CAN [y \text{ SEE } z]]]$

In (10), the constants are the units of meaning into which the predicate is decomposed, and the variables are x, y, z , representing the participants. The variables are lambda-abstracted out of the SF, and the resulting lambdas are equivalent to thematic roles, where the (inside out) depth of embedding represents the thematic hierarchy for a given verb.

3.1.2. *Abstract case*. Abstract case is defined using the same two given relational features. These are assigned to the ‘thematic roles’ according to their relative position in the semantic form. Once [+HR] and [+LR] have been assigned, the rest can be assigned implicationaly.

(11) *show*: $\lambda z \quad \lambda y \quad \lambda x \quad [x \text{ CAUSE } [CAN [y \text{ SEE } z]]]$
 $\begin{bmatrix} -HR \\ +LR \end{bmatrix} \quad \begin{bmatrix} -HR \\ -LR \end{bmatrix} \quad \begin{bmatrix} +HR \\ -LR \end{bmatrix}$

With the highest and lowest roles identified, all other roles must be marked as non-highest role and non-lowest role to complete the feature specification. Once the abstract case is defined, the morphosyntactic case is assigned through simple unification. The relational case features cross-classify to define four abstract cases:

(12) i. A: $\begin{bmatrix} +HR \\ -LR \end{bmatrix}$ iii. O: $\begin{bmatrix} -HR \\ +LR \end{bmatrix}$
 ii. S: $\begin{bmatrix} +HR \\ +LR \end{bmatrix}$ iv. D: $\begin{bmatrix} -HR \\ -LR \end{bmatrix}$

3.1.3 *Morphosyntactic case*. These features ($[\pm\text{HR}]$, $[\pm\text{LR}]$) are also used to specify the morphosyntactic structural case (note that semantic case is *not* defined in this way). Typically the unmarked case nominative/absolute is characterized by not having any specified features. The accusative is usually characterized as $[-\text{HR}]$ and the ergative $[-\text{LR}]$, while the dative is the most highly specified with a negative instance of both features. In Basque, as suggested above, the structural case inventory is taken to be:

Abs: []
 Erg: $[-\text{LR}]$
 Dat: $\begin{bmatrix} -\text{HR} \\ -\text{LR} \end{bmatrix}$

There are two conditions which govern the association of morphosyntactic case with abstract case. These are given in (13).

- (13) i. Unification: Associated feature matrices must be non-distinct.
 ii. Specificity: Specific rules and morphemes block general rules and morphemes in the same context.

Thus, feature matrices will only unify if they are non-distinct. For example, typically the dative is defined as $[-\text{HR}, -\text{LR}]$ and will unify with the middle role in a ditransitive verb:

(14) show: $\lambda z \begin{bmatrix} -\text{HR} \\ +\text{LR} \end{bmatrix} \lambda y \begin{bmatrix} -\text{HR} \\ -\text{LR} \end{bmatrix} \lambda x \begin{bmatrix} +\text{HR} \\ -\text{LR} \end{bmatrix} [x \text{ CAUSE } [CAN [y \text{ SEE } z]]]$

Dative morphosyntactic case $[-\text{HR}, -\text{LR}]$ thus unifies with $\lambda y [-\text{HR}, -\text{LR}]$. The less specific nominative case ([]) and ergative case ($[-\text{LR}]$) will not unify with this abstract case due to specificity: the more highly specified case available in the inventory $[-\text{HR}, -\text{LR}]$ will block the use of a more general morpheme in the same context.

3.2 *Joppen and Wunderlich 1995*

Joppen and Wunderlich (1995) examine Basque causatives in great detail within the LDG. They view causatives as flat structures which add an argument, but which have no internal structure. Thus, the argument structure of the following two clauses would be considered the same:

- (15) a. *make eat*: $\lambda y \lambda x \lambda q [q \text{ CAUSE } [x \text{ EAT } y]]$
 b. *give*: $\lambda z \lambda y \lambda x [x \text{ CAUSE } [y \text{ HAVE } z]]$

The causer argument is identified by a 'q', but the label of the variables in the semantic form is irrelevant. The two structures in (15) have the same basic

SF and three arguments. In Joppen and Wunderlich's view the two structures are equivalent.

These can capture the nominal case facts in Basque as I will show below, recalling the Basque examples from §2.

$$(16) \text{ make go: } \lambda x \quad \lambda q \quad [q \text{ CAUSE } [x \text{ GO}]] \\ \left[\begin{array}{c} -\text{HR} \\ +\text{LR} \end{array} \right] \quad \left[\begin{array}{c} +\text{HR} \\ -\text{LR} \end{array} \right]$$

$$\text{MS.case} \rightarrow \left[\quad \right] \quad [-\text{LR}] \\ \text{ABS} \quad \text{ERG}$$

Ama-k Mikel joan-araz-i du.
mother-ERG Mikel.ABS go-CAUS-PRF TNS.have
"Mother has made Mikel go."

$$(17) \text{ make kill: } \lambda y \quad \lambda x \quad \lambda q \quad [q \text{ CAUSE } [x \text{ CAUSE } [y \text{ DIE}]]] \\ \left[\begin{array}{c} -\text{HR} \\ +\text{LR} \end{array} \right] \quad \left[\begin{array}{c} -\text{HR} \\ -\text{LR} \end{array} \right] \quad \left[\begin{array}{c} +\text{HR} \\ -\text{LR} \end{array} \right]$$

$$\text{MS.case} \rightarrow \left[\quad \right] \quad [-\text{HR}, -\text{LR}] \quad [-\text{LR}] \\ \text{ABS} \quad \text{DAT} \quad \text{ERG}$$

Herodes-ek soldadu-ei haur guzti-ak hil-araz-i zizkien.
Herod-ERG soldier-PL:DAT child whole-PL:ABS kill-CAUS-PRF TNS.PL:ABS.3PL:DAT.PST
"Herod made the soldiers kill all the children."

$$(18) \text{ make give: } \lambda z \quad \lambda y \quad \lambda x \quad \lambda q \quad [q \text{ CAUSE } [x \text{ CAUSE } [y \text{ HAVE } z]]] \\ \left[\begin{array}{c} -\text{HR} \\ +\text{LR} \end{array} \right] \quad \left[\begin{array}{c} -\text{HR} \\ -\text{LR} \end{array} \right] \quad \left[\begin{array}{c} -\text{HR} \\ -\text{LR} \end{array} \right] \quad \left[\begin{array}{c} +\text{HR} \\ -\text{LR} \end{array} \right]$$

$$\text{MS.case} \rightarrow \left[\quad \right] \quad [-\text{HR}, -\text{LR}] \quad [-\text{HR}, -\text{LR}] \quad [-\text{LR}] \\ \text{ABS} \quad \text{DAT} \quad \text{DAT} \quad \text{ERG}$$

Apaiza-k pobre-ei diru-a eman-araz-i zidan ni-ri.
priest-ERG poor-PL:DAT money-ABS give-CAUS-PRF TNS.have.1SG:DAT.PST ISG-DAT
"The priest made me give money to the poor."

The examples in (16)–(18) show that the same principles of unification between abstract case and morphosyntactic case apply, resulting in the indicated morphological cases.

Joppen and Wunderlich's approach has many virtues. Thematic roles are derived from a semantic form and there is no need to refer to a thematic hierarchy directly. Moreover, simple unification underlies the entire linking theory. LDG correctly generates the morphological case patterns in Basque. However, there is a problem in that this approach does not distinguish between the two datives in the causativized ditransitive (18) and we have seen that it is λx that receives structural case, while λy is rendered semantic: it can no longer govern verbal agreement and may optionally appear in the destinative case.

This problem is addressed in further work by Joppen-Hellwig (2001) that I will discuss next.

3.3 Joppen-Hellwig 2000

Joppen-Hellwig (2001) is a cross-linguistic study which provides a typology of case arrays in four-place predicates (that are causativized ditransitives). Specifically, if a language allows four-place predicates through morphological causativization and does not allow case doubling, one of the arguments must be realized in a semantic case. The chief observation is that which argument becomes a semantic case is predictable based on whether or not the language is ergative or accusative, as illustrated below.⁵

- (19) a. If the language is ergative, the *lower* middle role (λy , Recipient) will be realized as a semantic case.
 b. If the language is accusative, the *upper* middle role (λx , Causee) will be realized as a semantic case.

Languages with split ergativity pattern consistently with either accusative or ergative languages, regardless of the split in the case marking system.

Joppen-Hellwig accounts for this by suggesting that inherent control properties of the argument (animacy, etc.) play a role in the argument linking. For this she posits a feature $[\pm C]$. This is assigned cyclically to the arguments in the semantic form. For example:

- (20) *make go*: $\lambda x \quad \lambda q \quad \begin{array}{l} [q \text{ CAUSE } [x \text{ GO}]] \\ [+C] \quad [-C] \end{array}$

The assignment of $[\pm C]$ starts in the innermost predicate and then extends outwards, such that the highest role typically has the most control in a clause, indicated by a its lack of $[\pm C]$ features. Consider the causativized ditransitive:

- (21) *make give*: $\lambda z \quad \lambda y \quad \lambda x \quad \lambda q \quad \begin{array}{l} [q \text{ CAUSE } [x \text{ CAUSE } [y \text{ HAVE } z]] \\ \quad \quad \quad [+C] \quad [-C] \\ \quad \quad \quad [+C] \quad [-C] \quad [-C] \\ \quad \quad [+C] \quad [-C] \quad [-C] \quad [-C] \end{array}$

The ‘best’ controller corresponds to the highest role, λq , as q has no $[-C]$ features, and the ‘worst’ controller is the lowest role, which has only $[-C]$ features.

From this, Joppen-Hellwig claims that the “relevant” feature for ergative languages is $[+C]$. In this way, λx , having only one $[-C]$ feature, in some sense ‘outranks’ λy and is thus deemed more of a controller. The structural dative is then assigned to the causee.

Conversely, in accusative languages $[-C]$ is said to be the relevant feature, and similar results in the recipient (λy) being assigned the structural dative case, while the causee is rendered oblique.

This does capture the facts. However, it is stipulative and the definitions of control are vague. Donohue (2004) presents an alternative way to predict the dative/semantic case assignment for Basque without having to refer to any stipulative features such as [\pm C].

4. *Causee case marking generalizations*

Donohue (2004) builds on these previous works by extending the theory. She presents an analysis using Lexical Decomposition Grammar but couched within an Optimality Theoretic (Smolensky and Prince 1993) framework (OT-LDG). The analysis relies on two critical assumptions. The first is relatively noncontroversial: causatives are instances of predicate argument composition (e.g. Alsina 1997) and as such recognise the causee as an embedded subject (or a-subject). The second is that causees, as subjects, should be marked like regular (transitive) subjects. It is this second characterization of the causee case marking process that Donohue develops within OT-LDG. In addition to the extensive cross-linguistic typology presented in Donohue (2004), this section demonstrates that this approach to case marking also accounts for diachronic and dialectal variation.

To ensure that causees are marked as subjects, Donohue proposes the ‘Causee case marking principle’ (CCP) which states that causees will ideally be marked by a case which resembles that of typical transitive subjects and which is a structural case ([+SC]):

(22) **Causee Case Marking Principle:**

Causees will be maximally faithful to the features of a transitive subject:
[+HR, -LR] and [+SC]

The cases in Basque can then be defined as shown in Table 2 (see Donohue 2004: 159 for further explanation).

Feature/[\pm SC]	Matches features?	Structural case?	Case
[+HR, -LR] / [+SC]	yes	yes	ERGATIVE
[+HR, -LR] / [-SC]	yes	no	INSTRUMENTAL
[-HR, -LR] / [+SC]	(one mismatch)	yes	DATIVE
[-HR, -LR] / [-SC]	(one mismatch)	no	SEMANTIC DATIVE
[-HR, +LR] / [+SC]	(two mismatches)	yes	ACCUSATIVE

Table 2: *Case feature matches*

The CCP is implemented as optimality theoretic constraints to derive a typology of case marking. I refer the interested reader to Donohue (2004, in preparation) for details of the OT account. The results of the OT implementation are that the final column listing the cases in Table 2 is essentially the preferred output for the case of the causee, ranked from highest to lowest.

However, to recall the Basque example of a causativized ditransitive we see that the causee is marked by a structural dative case.

- (23) *Apaiza-k pobre-ei diru-a eman-araz-i zidan ni-ri.*
 priest-ERG poor-PL.DAT money-ABS give-CAUS-PRF TNS-have-1SG.DAT-PST 1SG.DAT
 “The priest made me give money to the poor.”

The reason why the causee is not marked by an ergative case is that Basque does not allow any doubling of structural cases. The next best option would be a true instrumental case. However contemporary Basque (Euskara Batua) does not have a true instrumental (or a passive and thus a need for one). It is thus the morphological inventory that actively determines the available options for a given language.

4.1 *Old Basque*

An interesting difference between old and contemporary Basque is that old Basque had a passive and an instrumental with which to express the demoted agent. With this different morphological case inventory we would predict that the instrumental case is used to express the causee in four-place predicates in old Basque, and this is indeed the case. The causee in a causativized ditransitive is expressed in the instrumental case in 19th century Labourdin Basque shown in (24) (Ortiz de Urbina 2003: 440, taken from Elissamburu Piarres Adame, pp80).

- (24) *Mutil-ez zain-araz-ten zitian bere arthalde handi-ak.*
 boys-INSTR tend-CAUS-IMPF TNS.3PL:ABS.3ERG his flock large-PL:ABS
 “He had his large flocks tended by boys.”

4.2 *Western Basque*

It is also important to note that the CCP is only observable when the case assignment cannot operate as usual due to there being too many arguments. This is another parameter in which languages vary. And indeed we find this variation in dialects of Western Basque. In these dialects, with similar case inventories to Euskara Batua, the causee is always specially case marked. Instead of using the CCP as a ‘repair strategy’, it is the norm for causees. All causees are marked using the structural dative, regardless of the transitivity of the base verb. We thus observe an identical paradigm to Euskara Batua, except that with causativized intransitive verbs (25) causees also bear the dative case (Ortiz de Urbina 2003: 435).

- (25) *Asarre bixi-bixitt-an jarri erazo dauste ni-ri.*
 fury alive-alive-LOC get CAUS AUX 1SG-DAT
 “They have made me get very furious.”

5. Concluding remarks

There are several points made in this paper that I would like to reiterate as concluding remarks. First, it is important to take morphology seriously. In the data we have examined, it is clearly critical to carefully consider the actual morphological form of the case when trying to understand generalizations that govern the distribution of case markers. It follows, thus, that it is also important to consider the whole system of cases – the case inventory – for a given language under study. Second, in addition to cross-linguistic data, patterns of variation within a language are also an important source of data for testing theories of case. In particular diachronic and dialectal variation are a particularly good source for patterns of microvariation, which a good theory should be able to easily accommodate.

References

- Alsina, Alex. 1997. "Causatives in Bantu and Romance." *Complex predicates* ed. by Alex Alsina, Joan Bresnan and Peter Sells, 203–246. Stanford, CA: CSLI Publications.
- Baker, Mark. 1988. *Incorporation: A theory of grammatical function changing*. Chicago, IL: Chicago University Press.
- Brandner, Ellen and Heike Zinsmeister. 2003. "Introduction". *New perspectives on case theory* ed. by Ellen Brandner and Heiker Zinsmeister, 1–23. Stanford, CA: CSLI Publications.
- Cole, Peter. 1976. "Clause Union and Relational Grammar: Evidence from Hebrew and Kannada." *Studies in the Linguistic Sciences* 6.1, 216–227.
- Cole, Peter. 1983. "The grammatical role of the causee in Universal Grammar." *International Journal of American Linguistics* 49. 2, 115–133.
- Comrie, Bernard. 1975. "Causatives and universal grammar." *Transactions of the Philological Society* 1974, 1–32.
- Comrie, Bernard. 1976. "The syntax of causative constructions: Cross-language similarities and divergences." *The grammar of causative constructions* ed. by Masayoshi Shibatani, Syntax and Semantics vol. 6, 216–312. New York, NY: Academic Press.
- Davies, William D. and Carol Rosen. 1988. "Unions are multi-predicate clauses." *Language* 64. 1, 52–88.
- Donohue, Cathryn. 2004. Morphology matters: Case licensing in Basque. Doctoral dissertation, Stanford University.
- Donohue, Cathryn. 2007. "Complex predicates in Basque." *On interpreting construction schemes: From action and motion to transitivity and causality* ed. by Nicole Delbecque and Bert Cornillie, 125–142. Berlin: Mouton de Gruyter.
- Donohue, Cathryn. In preparation. Towards a typology of case marking in derived predicates. Unpublished manuscript, University of Nevada, Reno.
- Gerdts, Donna. 1984. "A relational analysis of Halkomelem causals." *Syntax and Semantics* 16, 169–204.
- Gibson, Jeanne Darrigrand. 1980. Clause union in Chamorro and in universal grammar. Doctoral dissertation, University of California, San Diego.
- Gibson, Jeanne Darrigrand & Eduardo Raposo. 1986. "Clause union, the stratal uniqueness law and the chômeur relation." *Natural language and linguistic theory* 4. 3, 295–331.
- Joppen, Sandra and Dieter Wunderlich. 1995. "Argument linking in Basque." *Lingua* 97. 2-3, 129–169.

- Joppen-Hellwig, Sandra. 2000. "Structural arguments with semantic case: The case of causees and recipients in 4-place verbs." *Theorie des Lexikons* 112, 1-33.
- Kiparsky, Paul. 1997. "The rise of positional licensing." *Parameters of morphosyntactic change* ed. by Ans van Kemenade and Nigel Vincent, 460-494. Cambridge: Cambridge University Press.
- Nedyalkov, Vladimir and Georgij Sil'nickij. 1973. "Tipologija morfologičeskogo i leksičeskogo kkauzativa." [The typology of morphological and lexical causatives.] *Tipologija kcauzativnyx konstrukcij: Morfoložičeskij kcauzativ* ed. by A. A. Xolodovich, 1-32. Dordrecht: Reidel.
- Prince, Alan and Paul Smolensky. 1993. *Optimality theory: Constraint interaction in generative grammar*. Rutgers Center for Cognitive Science Technical Report 2.
- Shibatani, Masayoshi. 2002. *The grammar of causation and interpersonal manipulation*. Typological studies in language companion series vol 48. Amsterdam: John Benjamins.
- Wunderlich, Dieter. 1997. "Cause and the structure of verbs." *Linguistic Inquiry* 28. 1, 27-68.