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The development of case: a study of Serbian in contact with Australian English

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1. Introduction

Within the PT framework, this chapter represents an exploration in three new directions. First, we look at the development of a case system in learners. Despite PT's fairly extensive empirical application to a variety of languages and acquisitional circumstances and populations (cf. § 1, ch. 1, this volume), surprisingly little attention has been given to the development of case systems, except for Baten's work on German L2 (2011, 2013) and Artoni & Magnani's on Russian L2 (2013) and in chapter 5, this volume. The system we will be looking at is that of Serbian, like Russian a heavily morphologised case-marking language (for an overview of Serbian from a typological point of view, cf. Corbett & Browne (2011). After a brief account of the case system in Serbian, we will present our PT-based hypotheses for its development.

Secondly, we look at how a heritage language develops in contact with a dominant one. Many children of immigrants in Australia grow up with language exposure that is 'situation-bound' (Vihman & McLaughlin 1982; Clyne 2003; Qi, Di Biase & Campbell 2006), where their two languages, a heritage language and English, develop separately (Meisel 1989; De Houwer 1990, 2005; Itani-Adams 2007). As far as Serbian is concerned, the Serbian input children receive is limited to home-based language use in communication with family members. Such a limitation in language input, coupled with the lack of opportunities for output (cf. Swain's 1995 output hypothesis) in a predominantly English-speaking environment, may affect the development and attainment (Doughty & Long 2003) of Serbian knowledge and skills. It is likely that the case-marking system will be affected because Serbian, which is a heavily morphologised case-marking language, is in contact with English, which is a highly configurational language with a much-reduced morphological expression of case. In testing our hypotheses on production data from three Serbian-Australian teenagers, all early bilinguals living in Sydney, we then expect to find

that their Serbian case system is not as fully developed as that of a comparable native speaker.

Thirdly, we look at how the case system can interface with pragmatic choices, in a similar way to Artoni & Magnani (cf. ch. 5, this volume). Because Serbian case markers on nominals identify functional roles (Hammond 2005: 105), they help give structural realisation to pragmatic factors such as topicality and prominence in the sentence (Browne 1993). Whilst the default Serbian word order is SVO, constituents are largely ordered by topic-comment structure. So, a limited availability of the case-marking system in their weaker language is important when discussing bilinguals' choices for structures at the interface between syntax and pragmatics. Thus we also use PT to assess how a more developed case-system can allow for a wider range of pragmatic-discourse driven syntactic choices.

2. The Serbian case system

A case system is a prominent characteristic of dependent marking languages (cf. (1), part II, this volume), and – as we have seen in chapter 5 about Russian – is traditionally defined, in a general way, as a system marking dependent nominals to the type of relation they bear to their heads in a phrase (Blake 1994). Ns can therefore depend on heads belonging to various lexical categories: verb, noun, adjective and preposition. Each of these lexical categories is associated with its typical cases for the Ns within their VP, NP, AP, and PP respectively. Among these lexical categories, V is crucial for the construction of the sentence because the cases it requires for its thematic roles identify their GFs. A corollary of this definition of case is that, when N is independent of any other words and fulfils the SUBJ function, it takes the basic 'unmarked' form of the nominative case.

There are seven cases in Serbian: nominative, accusative, locative, genitive, instrumental, dative and vocative. In this chapter, vocative will no longer be mentioned because it is independent of any other element in the sentence. Each lexical category governs its typical case, such as ACC for V, and GEN for N, as shown respectively in (1a-b).

- (1) a. mačka tera miša
 cat chase mouse-ACC
 [the cat is chasing a mouse]
- b. interpretacija romana je veoma interesantna
 interpretation novel-GEN is very interesting
 [interpretation of the novel is very interesting]

However, Serbian lexical categories may govern other cases, as shown in (2a-b), where the OBJ required by V is expressed by GEN and INST respectively rather than by ACC. Needless to say, these less systematic associations (or more marked cases) are harder to acquire.

- (2) a. baka je nakopala krompira
 grandma be dug up potatoes-GEN
 [grandma dug up the potatoes]
- b. kralj vlada zemljom
 king rule country-INST
 [the king rules the country]

Like verbs, also nouns, adjectives and prepositions can assign a variety of cases. For example, besides GEN, shown in (1b), N can assign DAT, as in (3).

- (3) spomenik Puškinu je jako visok
 monument Pushkin-DAT is very high
 [the monument to Pushkin is very high]

As case assigners, prepositions are especially taxing for the learner. Few of them, if any, select only one case; and few cases, if any, depend on only one preposition. So, on the one hand, displaying high functional overlap with their homonymy, polysemy, synonymy (Savić & Anđelković 2007), most prepositions select their case according to their different meanings. For example, the preposition *u* governs LOC when the meaning of PP is locational 'in', and ACC when it is directional 'to' as in (4a-b) respectively.

- (4) a. ja sam u sobi
 I am in room-LOC
 [I am in the room]
- b. idem u sobu
 am going to room-ACC
 [I am going into the room]

On the other hand, ACC for example, can be governed by *u* (directional 'to') as we have just seen in (4b), by *u* (temporal 'in') as in (5a), or *za* ('for') as in (5b).

- (5) a. u moje slobodno vreme pravim čestitke
 in my spare time-ACC draw cards
 [in my spare time I draw cards]

- b. prodajem kolače za svadbe i za krštenja
 sell cakes for weddings-ACC and for christenings-ACC
 [I sell cakes for weddings and for christenings]

Further complexities can arise from the semantics of certain NPs themselves, rather than from the element from which they depend. For example, Serbian NPs containing the numerals *two*, *both*, *three* or *four* obligatorily require an invariable paucal form (PAUC; Franks 1994: 606), and NPs containing a quantifier obligatorily require GEN. Thus, constituents functioning as SUBJ or OBJ may occur in this PAUC form as in (6a-b), or in GEN as in (6c-d). Likewise, NPs in PPs containing a quantifier occur in GEN regardless of the preposition, as in (7a-b).

- (6) a. troje dece čita u parku
 three children-PAUC.SUBJ read-3.SG in park
 [three children are reading in the park]
- b. imam troje dece
 have-1.SG three children-PAUC.OBJ
 [I have three children]
- c. mnogo pasa trči u parku
 many dogs-GEN.SUBJ run-3.SG in park
 [many dogs are running in the park]
- d. imam nekoliko hobija
 have-1.SG several hobbies-GEN.OBJ
 [I have several hobbies]
- (7) a. Sergej popravlja sto sa novim čekićem
 Sergej fix table with new hammer-INST
 [Sergej is fixing the table with a new hammer]
- b. Sergej radi sa nekoliko čekića
 Sergej work with several hammers-GEN
 [Sergej is working with several hammers]

Yet another set of difficulties for the learner is created by the fact that Serbian morphology, like Russian, is highly fusional. On N, for example, a single inflectional morpheme carries information about features such as gender (masculine, feminine or neuter), number (singular or plural), and case (nominative, accusative, genitive, dative, instrumental, or locative). Compounded with all this, there are three phonologically-based N classes: the first class, arising from Proto-Slavonic *o*-stems, includes most masculine and all neuter Ns ending in *-o*, *-a* or a consonant in NOM

SG and *-a* in GEN SG; the second class, continuing proto-Slavonic *a*-stems, includes most feminine Ns and some masculine Ns ending in *-a* in the NOM SG and *-e* in GEN SG; the third class, from Proto-Slavonic *i*-stems, includes all feminine Ns apart from *a*-stems, ending in a consonant in NOM SG and *-i* in GEN SG (Browne 1993: 319-322). No wonder, then, that the cognitive load required in sorting out form-to-function mapping (Pienemann 1998: 155) is heavy. Consider, for example, the case declensions shown in (11). With the *-o* stem N *grad* ('city'), NOM and ACC suffixes coincide in the singular, and so do DAT and LOC with *-u*. Also, both with masculine and feminine Ns, DAT, LOC and INSTR are practically identical in the plural: what distinguishes them in spoken production, however, is prosody (Browne 1993: 319).

(8) *Declension by case of the masculine noun grad ('city') and the feminine noun žena ('woman, wife')*

CASE	SINGULAR		PLURAL	
	MASC	FEM	MASC	FEM
NOM	grad	žena	gradovi	žene
ACC	grad	ženu	gradove	žene
GEN	grada	žene	gradova	žena
DAT	gradu	ženi	gradovima	ženama
LOC	gradu	ženi	gradovima	ženama
INST	gradom	ženom	gradovima	ženama

A final difficulty for the learner should be mentioned. In Serbian, within the NP, nominal modifiers that precede the head N must agree with the head in gender, number and case (Hammond 2005). In other words, Serbian case must be computed formally not only on the head N or pronoun but also on adjectives and some quantifiers (Hammond 2005), as illustrated in (9). This requirement allows further flexibility in Serbian word order (not just the freeing up of SVO), in so far as elements within an NP can be discontinuous, as in (10) which may be used to express discourse-pragmatic requirements of the speaker.

(9) peglam ovu plavu haljinu
 iron-1.SG this-ACC blue-ACC dress-ACC
 [I iron this blue dress]

(10) ovu sam plavu haljinu peglala
 this-ACC be-1.SG.AUX blue-ACC dress-ACC ironed
 [I have ironed this blue dress]

In our analysis here, we will deal mainly with case construction by V. Because of the pivotal role V plays in building up the sentence (cf. § 2.1, ch. 1, this volume), we are crucially interested in how case can mark the GFs of their arguments (i.e., SUBJ, OBJ, and OBL_θ) and less so in the internal structure of NPs, which would require a larger study and more space than is available here. Among GFs, however, we ignore COMP because, although argumental, it is unmarked by case as such (although it may of course contain case in its internal structure). On the other hand, because OBL_θ are most often expressed by PPs, we take into consideration also prepositions as case assigners. In other words, here we focus on how learners first learn to associate a set of lemma specifications with a set of GFs and build up their f-structure by means of case markers, and then exploit their functionally case-marked sentence constituents for discourse and pragmatic reasons. Let us then look at cases as markers of GFs.

According to Nordlinger's (1998) quadripartite typological scheme reported in (1) in part II, this volume, Serbian is an example of a nonconfigurational dependent-marking language. This means that, on the one hand, when linking the lexicon to c-structure, along the configurational continuum, Serbian f-structure information is expressed by morphology (rather than by position, as in English). On the other hand, along the dependency continuum, Serbian GFs are marked inflectionally on the depending element (rather than on the head, as in Italian, cf. ch. 3, this volume). Marking a dependent element inflectionally means using case. As a matter of fact, as remarked in chapter 5 about Russian, case is one of three devices by which, typologically, languages can identify GFs, especially the core ones SUBJ and OBJ – the other two devices being word order as in English, and agreement as in Italian (Kroeger 2005: 102-ff). In brief, Serbian relies on obligatory N morphology for identifying GFs, regardless of word order.

Case as function assigner (together with SUBJ-V agreement, which in Serbian is a further device identifying core grammatical relations) allows for great flexibility in the word order of the Serbian sentence. So, besides canonical SVO order, all the other five permutations of the three core elements in a sentence are grammatically acceptable in Serbian: SOV, VSO, VOS, OSV, OVS. These six orders do not exhaust all possible sequences because all of them are possible with null SUBJ and null OBJ. And speakers exploit them all to organise sentences according to the pragmatic requirements of the topic-focus structure. Once constituents are marked functionally by case, they can be positioned varyingly in the sentence. For example, the same propositional content, expressed with SVO in a pragmatically unmarked way in (11a), can be expressed with different word order if the speaker wishes to topicalise OBJ in (11b).

- (11) a. mačka tera miša
 cat-NOM.SUBJ chase-3.SG mouse-ACC.OBJ
 [the cat is chasing a mouse]
- b. miša tera mačka
 mouse-ACC.OBJ chase-3.SG cat-NOM.SUBJ
 [the cat is chasing a mouse / it is a mouse that the cat is chasing]

In sum, for learners of Serbian, case is a complex feature to acquire for a variety of reasons: morphologically, there are several cases, fusionally enmeshed with other nominal features such as number, gender and class. Morphosyntactically, case must be computed on most nominal elements within the NP. Syntactically, cases identify GFs in the sentence. Most of the time, relations between case and function are default and predictable. However, less predictably, the same case can construct alternative GFs, and the same GF can be constructed by different cases, although lexically with different predicates. On the basis of these complexities, we now suggest some hypotheses for the development of the case system in learners of Serbian as a heritage language.

3. The developmental hypotheses

Morphologically, we hypothesize that, among the Serbian cases, the first to be used will be NOM for three main reasons: NOM is the citation form; it often coincides with the ACC form in the singular; and it is the case learners pervasively find in the prominent first position in the sentence. Once they notice variation in form, early contrasts may be set up as NOM-nonNOM with the nonNOM form(s) overextended. Then the sequencing in the spread of case forms from the emergence of a first contrast to the whole paradigm is an empirical matter, which may be subject to variation, both contextual and individual. And it goes without saying that we are talking here about the emergence of case-markers, without any consideration for their formal accuracy in terms of gender, number, or class.

Morphosyntactically, we predict that case will be marked according to PT's well-tested hierarchy based on the activation of the processing procedures which allow for the exchange of information about case first within the phrase, and then within the sentence. As already mentioned, the focus in our analysis here is at sentence level, i.e., on cases marking GFs, so we will not take into account case agreement phenomena. On the other hand, the case marker of the N in a PP bearing the OBL function will be considered, even if this is specified in the lexical entry of the preposition, and hence phrasal in terms of morphological development and independent of functional assignment in terms of syntactic development.

Syntactically, the sequence in (12) shows our developmental hypothesis for Serbian declaratives based on PT's Prominence Hypothesis (cf. § 4.2.1, ch. 1, this volume, for the universal sequence, and chh. 2, 3 and 4 for English, Italian, and Japanese respectively). At the canonical word order stage, the first match will occur between form and position; thus in an SVO language like Serbian, NOM is associated with preverbal position, and ACC with postverbal position. As a matter of fact, to our English Serbian bilinguals, case marking will actually seem redundant (as it may have happened historically for English). Only later, when functional assignment is in place, will learners be able to match NOM with SUBJ, ACC with OBJ, and DAT with OBL independently from the positionally determined SVO blocked sequence. So, at the noncanonical word order stage, they will be able to depart from the rigidity of the fixed SVO sequence in order to express their own discourse and pragmatic choices.

(12) *Developmental stages hypothesised for Serbian L2 syntax based on the Prominence Hypothesis: declaratives*

STAGE	STRUCTURE	EXAMPLE
NONCANONICAL WORD ORDER	OV(S) (topicalisation of OBJ)	<i>supu voli devojčica</i> [soup-ACC.OBJ likes girl-NOM.SUBJ] <i>supu devojčica voli</i> [soup-ACC.OBJ girl-NOM.SUBJ likes]
	VS(O) (focalisation of SUBJ)	<i>voli devojčica supu</i> [likes girl-NOM.SUBJ soup-ACC.OBJ]
XP CANONICAL WORD ORDER	TOP SVO (topicalisation of ADJ)	<i>svakog dana đaci imaju ispit</i> [every day-GEN.ADJ students-NOM.SUBJ have exam-ACC.OBJ]
CANONICAL WORD ORDER	SVO	<i>jedem krofnu</i> [(I) eat doughnut-ACC.OBJ] <i>devojčica voli supu</i> [the girl-NOM.SUBJ likes soup-ACC.OBJ]
LEMMA ACCESS	single words formulas	<i>ja ser</i> [I (like) cheese] <i>zovem se Mary</i> [my name is Mary]

The reader should bear in mind that, like the previous study on Russian, this is an exploratory study of case – not only for Serbian but also within PT's framework. Thus not all hypotheses are testable on our current cross-sectional data. Assuming that teenage Serbian-English bilinguals in Australia have positive attitudes towards preserving their mother tongue and use it in the home environment to communi-

cate with family and friends, it is expected that they would use native adult-like skills in sentence processing, should they possess them. Using as a benchmark the presumably full Serbian case system of our adult bilingual informant with schooling in Serbia, we therefore focus on the range of structures and case markers displayed by our three bilingual teenagers, and the way they are deployed to allow for speaker perspective and expressiveness beyond canonical word order rigidity.

4. Method

As already mentioned in § 1, the informants in this study are three teenage Serbian-Australian bilinguals. All three acquired both languages as first languages, with Serbian as the home and community language, and English as the dominant one. Their families originate from Vojvodina, a northern region of Serbia, so all of them speak the same Ekavic dialect. A Serbian native speaker who migrated to Australia when she was 20, and thus learned English as an adult, also participated in this study to ensure that the range of targeted structures is actually produced by native speakers in similar situations of elicitation. She too originates from the same Serbian region. Further details about the four informants are shown in (13).

(13) *The informants*

CODE-NAME	AGE	COUNTRY OF BIRTH	AGE AT ARRIVAL IN AUSTRALIA	OTHER INFORMATION
TRISH	13	Australia		no instruction in Serbian
NED	15	Australia		no instruction in Serbian
DON	17	Serbia	1;5	2 years of Serbian classes
NICOLE	35	Serbia	20	in Australia for 15 years

Data elicitation took place in dyadic conversations between the informant and the Serbian researcher. Informants were asked to perform three communicative tasks. During the short conversation, they responded to questions about their personal experience for the purpose of gathering information on language maintenance strategies. During the spot-the-difference task, they could report on at least seven differences between the two pictures shown. In the story-telling task, they narrated the children's story of 'Goldilocks and the three bears' following a sequence of pictures.

Among the whole corpus, the data set analysed for this study consists of 231 Serbian sentences produced by our four bilingual speakers. In accordance with the current state of PT in general, and its Prominence Hypothesis in particular, these are all main declarative sentences with finite lexical V. This means that we do not

consider constructions involving subordination, as well as reflexives, passives, and causatives. Also copulas and presentatives are excluded because they are ‘non verbal predicates’ (Kroeger 2005: ch. 10). Of these 231 sentences, 40 are irrelevant to our aims here because they are unmarked for case, that is, they bear only GFs which are COMP, OBLLOC or ADJ expressed with adverbs as in (14), or have all participants express by a codeswitch from English as in (15).

- (14) a. Ned sad je htela da spava
 now-ADJ be-3.SG.AUX want-3.SG to sleep-COMP
 [now she wanted to sleep]
- b. Ned ušli su unutra
 entered be-3.PL.AUX inside-OBLLOC
 [they went inside]
- (15) Tri Charmed ima one witchy sort of stuff
 Charmed-Ø.SUBJ have-3.SG that witchy sort of stuff-Ø.OBJ
 [Charmed (television show) has that witchy sort of stuff]

Thus our main analysis in § 5 considers 191 sentences, all of which mark at least one GF by case.

5. The analysis

In (16) we show the distribution of syntactic structures among the four informants. In order to avoid cluttering up a single table, we consider first only argument functions, and then deal separately with the various positions of the nonargument function ADJ. This explains why the XP canonical word order stage with its typical ADJ SVO structure is missing in (16).

As expected, by far the most frequent way of organising syntax is by canonical word order with all the informants, although it is worth noticing that all three early bilinguals dominant in English tend to avoid the more frequent null-SUBJ sentences typical of Serbian monolingual speakers, and use overt pronominal or referential SUBJ more often than the late bilingual Nicole does – especially Trish, who uses this structure more than twice as much. Pragmatically marked structures are much rarer, both those that place GFs other than SUBJ in preverbal position and those that place SUBJ in postverbal position for lexical requirements.

Regarding noncanonical word orders, we observe several notable differences between our informants. Foremost is the fact that Nicole’s range is much wider than that of the other three bilingual speakers. For example, the sentences in (17)

(16) *Cross-sectional study: distribution of argument functions among structures and informants*

STAGE	STRUCTURE	TRI	NED	DON	NIC	TOTAL
NONCANONICAL WORD ORDER	OBJ V SUBJ				1	1
	V SUBJ OBL			4		4
	V SUBJ				4	4
	OBJ SUBJ V				1	1
	OBJ V		1	2	1	4
	OBL SUBJ V				2	2
	OBL V				1	1
	SUBJ OBJ V	1				1
	SUBJ V OBL _{CASE}				1	1
	SUBJ V OBL _{PP}	4	2	2	4	12
CANONICAL WORD ORDER	SUBJ V OBJ	15	6	9	8	38
SUBJ V	13	10	9	5	37	
V OBL	8	3	7	13	31	
V OBJ	14	15	10	15	54	
TOTAL		55	37	43	56	191

illustrate clearly how Nicole is the only informant producing postverbal SUBJ in the context ('the bear said/replied/asked') of the Goldilocks story retelling task. In this context even Don avoids postverbal SUBJ, although he is clearly able to use it with unaccusative Vs, as in (18).

- (17) a. Nic odgovorio je mali medved
 replied be-3.SG.AUX small bear-NOM.SUBJ
 [the small bear has replied]
- b. Don mali medved kaže
 small bear-NOM.SUBJ say-3.SG
 [the small bear says]
- c. Ned najmanji medved je rekao
 smallest bear-NOM.SUBJ be-3.SG.AUX said
 [the smallest bear has said]
- d. Tri mali medveć¹ je pito
 little bear-NOM.SUBJ be-3.SG.AUX asked
 [the little bear has asked]

1 *Medveć* is the informant's version of the diminutive *medvedić*. Case, however, is used appropriately.

- (18) Don došo muški medved do svoje sup
 come-3.SG male bear-NOM.SUBJ next to his soup-OBL
 [the male bear came towards his soup]

Furthermore, Nicole is the only informant who topicalises OBL, as shown in (19).

- (19) Nic na mojoj stolici je neko sedeo
 on my chair-LOC.OBL be-3.SG.AUX someone-NOM.SUBJ sat
 [someone has sat on my chair]

Finally, Ned and Trish use only one noncanonical structure each, neither of which involves postverbal SUBJ, as shown in (20). On the other hand, Nicole and Don use four and five postverbal SUBJ structures respectively, as already exemplified in (17a) and (18).

- (20) a. Ned istoriju znaš volim
 history-ACC.OBJ (you) know like-1.SG
 [history, you know, I like]
- b. Tri ona je to sve pojela
 she-NOM.SUBJ be-3.SG.AUX that all-ACC ate
 [she ate all that]

Let us now look at the position of ADJ in the production of our informants. In Serbian there are no constraints on where it can be placed, and speakers are free to place it according to their discourse or pragmatic need. However, the three positions ADJ can occupy with reference to canonical word order (after, within, and before) gain different significance in terms of developmental syntax. If ADJ follows canonical word order, it belongs to the early syntactic stage, which clearly also Trish has safely reached. If ADJ occurs between the core GFs, namely between either SUBJ and V, or V and OBJ, it is a sign that learners are starting to free up the SVO block, and GFs are somehow no longer assigned by position alone. However, in this case ADJ does not compete with SUBJ for the association with the initial DF TOP. Also when ADJ is before V in a sentence with null SUBJ it is not, by itself, sufficient evidence that a learner has reached the XP canonical word order stage. Since this latter stage involves the separation of SUBJ and TOP, we assume that the passage of stage is clear only when SUBJ is present and competes for prominence with ADJ as TOP in sentence-initial position.² So, if ADJ precedes SUBJ, there is a more sub-

2 In § 3.1, ch. 3, this volume, Di Biase & Bettoni place the TOPADJ VO structure at the higher XP canonical word order stage. Be as it may, unequivocal evidence for the passage of stage is provided when SUBJ is present and competes with ADJ as TOP.

stantial sign of having reached the XP canonical word order stage. Finally, any other position of ADJ occurring with marked orders is no longer developmentally significant, because by then learners have freed up fully the more important core GFs. In (21) we show where our informants stand with regard to the placement of ADJ in the 64 sentences containing this GF among the total 191 ones.

(21) *Cross-sectional study: distribution of ADJ among structures and informants*

STAGE	STRUCTURE	TRI	NED	DON	NIC	TOTAL
NONCANONICAL WORD ORDER	OBL ADJ V				1	1
	OBJ ADJ V			1		1
XP CANONICAL WORD ORDER	ADJ SUBJ V X		2	2	1	5
CANONICAL WORD ORDER	ADJ V X	2	3	2	6	13
	SUBJ ADJ V X	3	1	3	3	10
	(SUBJ) V ADJ X	2	1	3	2	8
	(SUBJ) V X ADJ	4	5	9	8	26
	TOTAL	11	12	20	21	64

In the table we can see again how, compared to Trish and Ned, Nicole and Don use a wider range of positions, including at least one example each of topicalised ADJ with referential or pronominal SUBJ. Ned too has two examples of this structure, as in (22), but Trish has none, although she can vary the ADJ position within canonical word order as in (23a-b), and can topicalise ADJ in a null-SUBJ sentence as in (23c). We explain Trish's and Ned's smaller range of structures by the fact that their functional assignment relies more on position than on case.

(22) Ned *prvo je sela na najveću stolicu*
 first be-3.SG.AUX sat on biggest chair
 [first (she) sat on the biggest chair]

(23) Tri a. *moja samo ima yellow suknju*
 my-NOM only-ADJ have-3.SG yellow skirt-ACC
 [my (girl) only has a yellow skirt]

b. *ja volim malo one lolies*
 I-NOM like-1.SG a little bit-ADJ those lollies-Ø
 [I like those lollies a little bit]

c. *samo vidiš jednu glavu*
 only-ADJ see-2.SG one head-ACC
 [you only see one head]

In (24) we show how our four informants can handle case marking of direct (SUBJ and OBJ) and indirect (OBL_{CASE} and OBL_{PP}) argument functions. Not included in the analysis is case marking in ADJ, even when these are expressed by PPs rather than adverbs because it would not provide more information about the use of case than OBL already does when it too is expressed by a PP. Furthermore, cases are counted with a + sign when appropriately used in a given context, whereas the brackets around a case after the figure preceded by the - sign indicate which case is used inappropriately. Appropriateness, however, should not be confused here with accuracy (Pienemann 1998). That is, keeping in mind that, as we have already mentioned in § 2, a single inflectional morpheme in Serbian may be used for several morphological contrasts (e.g., number and gender, as well as case), we accept as appropriate any target case ending regardless of gender, number etc. When these are hard to factor out, we give the speaker the benefit of the doubt.

(24) *Cross-sectional study: distribution of case markers in relation to argument functions among informants*

FUNCTION	TARGETED CASE	TRI	NED	DON	Nic
OBL_{PP}	prep INST				+1
	prep LOC	-3(ACC)	-2(ACC)	+1	+6
	prep GEN			+4	+3
	prep ACC	+5 -1(DAT)	+3	+4 -3(LOC)	+9
	total OBL_{PP}	+5 -4	+3 -2	+9 -3	+19
OBL_{CASE}	DAT				+1
	total OBL_{CASE}				+1
OBJ	∅ (codeswitch)	+2	+1		
	PAUC (numeral)	+4	+7	+4	+5
	GEN (quantifier)				+2
	ACC	+22 -1(NOM) -1(GEN)	+14	+17	+19
	total OBJ	+28 -2	+22	+21	+26
SUBJ	PAUC (numeral)		+2	+2	
	GEN (quantifier)			+1	
	NOM	+33	+16	+22	+26
	total SUBJ	+33	+18	+25	+26

Predictably, Nicole's case marking system is fully accurate. Furthermore, her range of case use is wider than that of the other informants, including also INST and DAT. Whereas INST occurs within a PP, she is the only informant who uses DAT in order to mark an oblique argumental function (OBL_{CASE}), as shown in

(25), rather than marking it by a OBL_{PP} . As a matter of fact, also other informants mark OBL_{LOC} by means of DAT more than once, as in *tata osto kući* ('father stayed home'), but we consider this frequent use of *kući* formulaic, and ignore it in our analysis.

- (25) Nic mama medvedica je rekla medvedu
 mother bear-NOM.SUBJ be-3.SG.AUX said bear-DAT.OBL
 [mother bear has told the bear]

All other informants show some uncertainty in the use of case markers. With Don and Ned, errors in case marking are limited to PPs, and thus attributed to the lexical entry of individual prepositions, with little relevance for functional assignment, and consequently minimal risk for misunderstanding, in so far as the presence of the preposition facilitates comprehension of the intended meaning (Anđelković 2000); an example is shown in (26), where in OBL_{LOC} Ned uses ACC instead of LOC .

- (26) Ned neko je sedeo na njegovu *stolicu
 someone-NOM.SUBJ be-3.SG.AUX sat on his chair-ACC.OBL
 [someone has sat on his chair]

With Trish, however, inaccurate case marking affects also core arguments. Although all her $SUBJ$ s are marked as NOM , as (24) shows, and her range of $NOM-ACC$ distinctions is quite large, including both nominal and pronominal elements, as shown in (27), she marks OBJ twice with a wrong case: once with NOM and the other with GEN , as shown in (28a-b respectively).

- (27) Tri a. veći medveć spasio je onu malu
 bigger bear-NOM.SUBJ saved be-3.SG.AUX that little-ACC.OBJ
 [the bigger bear has saved that little one (girl)]
- b. ona je probala onu treću
 she-NOM.SUBJ be-3.SG.AUX tried that third-ACC.OBJ
 [she has tried that third (soup)]
- (28) Tri a. ona samo drži mali *ker
 she-NOM.SUBJ only hold-3.SG.AUX little dog-NOM.OBJ
 [she is only holding a little dog]
- b. onak su videli *kreveta
 then be-3.SG.AUX see-3.SG.AUX bed-GEN.OBJ
 [then they saw beds]

This uncertainty in case marking displayed by Trish is also evident in several PPs, where she tends to oversupply ACC. As a matter of fact, it would seem that Trish is still at the stage of NOM vs nonNOM variation along the morphological schedule, and that her nonNOM forms only happen to coincide with ACC, DAT and GEN forms in the native language – as suggested by one of the anonymous referees of this chapter. Notice also that Trish is the informant who most often leaves constituents unmarked by case by using English, as shown in (29). The use of this type of codeswitching from the dominant language into a heritage language is a well attested characteristic of first and second generation migrants' speech in general, in Australia (Bettoni 1991; Clyne 2003) as elsewhere (Auer 1998; Li Wei 2006). But there can be no doubt that the more frequent the codeswitches, the weaker the case system (cf. Schachter's (1974) avoidance strategy).

- (29) Tri ja volim visual arts
 I-NOM.SUBJ like-1.SG visual arts- Ø.OBJ
 [I like visual arts]

Even if not altogether apparent in the tables and examples presented so far, the 191 sentences analysed for this study provide us with further evidence that the Australian young bilinguals' case marking system is less reliable than Nicole's, who is a late bilingual with Serbian schooling. For example, compare Nicole's discontinuous OBJ constituent in her OSV sentence in (30a) with Don's SVO canonical sequence in uttering the very same referential content in (30b). Even though Don's sentence is grammatically correct, there can be no doubt that it lacks expressiveness compared to Nicole's.

- (30) a. Nic moju je supu neko pojeo celu
 my-ACC be-3.SG.AUX soup-ACC.OBJ someone-NOM.SUBJ eaten entire-ACC
 [someone has eaten my entire soup]
- b. Don neko je pojeo celu moju supu
 someone-NOM.SUBJ be-3.SG.AUX eaten whole-ACC my-ACC soup-ACC.OBJ
 [someone has eaten my whole soup]

One could argue that English interference can explain both reliance on SVO and caseless transfers. Yet, in our data there are other structures where all three Australian bilinguals seem to have problems despite a similarity between their two languages. A case in point is possessive GEN as a marker of dependency from N. Don produces three sentences in which GEN correctly marks the possessor (as the English morpheme *-s* does), but sometimes insecurity with the case lets him add the preposition the preposition *od*, as in (31a), which turns out to be ungrammat-

ical because an N+N dependency would be expected by native speakers in this context. Ned seems to ignore the issue by marking all elements in the OBJ constituent with ACC in (31b), thus missing the N+N dependency. And Trish seems to lose track of her sentence by using a preposition and then marking *little (girl)* with ACC instead of GEN in (31c).

- (31) a. Don na kraju je išla od malog deteta na *stolici
 in end-LOC.ADJ be-3.SG.AUX gone of little child-GEN on chair-LOC.OBL
 target: na kraju je išla na stolicu malog deteta
 in end-LOC.ADJ be-3.SG.AUX gone on chair-ACC.OBL little-GEN child-GEN
 [in the end she went to the little child's chair]
- b. Ned jedna ima *ljubičastu *boju odelo
 one-NOM.SUBJ have-3.SG.AUX purple-ACC colour-ACC outfit-ACC.OBJ
 target: jedna ima odelo ljubičaste boje
 one-NOM.SUBJ have-3.SG.AUX outfit-ACC.OBJ purple-GEN colour-GEN
 [one (woman) has a purple coloured outfit]
- c. Tri njena majka, od te Goldilocks *malu, je došla
 her mother-NOM.SUBJ of that Goldilocks little-ACC (girl) be-3.SG.AUX came
 target: njena majka, majka male Goldilocks, je došla
 her mother-NOM.SUBJ, mother-NOM little-GEN Goldilocks, be-3.SG.AUX came
 [her mother, little Goldilocks' mother, came]

6. Conclusion

In this chapter we have dealt with a case marking system within the PT framework, and considered both morphological and syntactic aspects of its development. Our example of the Serbian language is particularly challenging for the learner (and the researcher), not only because, morphologically, there are several cases which mark N dependency on several lexical categories and whose formal features are fusionally 'mixed' with those of gender, number and class features, but also because, besides a more systematic, productive use of default case assigned syntactically, there are numerous instances of lexically triggered nondefault case which override syntactic assignment and must be learned individually, or at best bundled up in small sets. We have then offered some hypotheses for the development of the Serbian case marking system, both morphological and syntactic, and tested them on cross-sectional data pertaining to four bilingual informants whose knowledge of Serbian is already fairly advanced.

Our analysis of the data available cannot provide evidence for the full developmental path that lies ahead for learners acquiring Serbian as a heritage language.

Nevertheless, they confirm several of our PT-based hypotheses. First, syntactically, no informant producing structures at the noncanonical word order stage has not already safely in place those at the canonical word order stage, sequencing verbal arguments in canonical order. Secondly, the position of the nonargument function ADJ, freely placed according to discourse or pragmatic reasons, is the playground for allowing learners to free up the default canonical word order. Thirdly, no informant who displays a full range and accurate use of case markers does not exploit the possibility of deploying them in order to produce noncanonical word orders. On the other hand, the opposite seems to hold true. Our informants whose case system still shows some gaps or formal inaccuracies rely on the rigidity of position within canonical word order to identify GFs, or else appeal to the semantically more transparent PPs.

In sum, focusing on how V constructs the relationship with its arguments by means of case, PT has allowed us to show how a wider range and a more reliable deployment of formal cases correlates with a stronger possibility of exploiting them to enhance discourse and pragmatic choices beyond canonical word order, thus allowing expressiveness for the speaker without compromising comprehension by the listener. This in turn has allowed us to discriminate between advanced and less advanced heritage speakers of Serbian, and propose a new approach to the analysis of a minority language. In our approach, contrary to Dimitrijević's (2004a, 2004b; Dimitrijević-Savić 2008), the contact between the two typologically different languages (i.e., nonconfigurational Serbian and configurational English) plays a lesser role than immature development, which is constrained by a migration environment offering 'situation-bound' language exposure and arguably a much-reduced input in the heritage language, both in quantity and quality. Further research focusing, for instance, on the comparative development of both the minority language and the dominant language once the child begins his/her school experience may clarify the role of the specific sort of input afforded by instruction (but cf. Medojević 2014). We leave it to more robust data – gathered longitudinally or cross-sectionally among more numerous learners with more varied competence levels – to test the full range of developmental hypotheses concerning the acquisition of the case marking system of Serbian (and other languages), and thus confirm, or falsify, our claims.

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