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Fossilized Imperative in Compounds and Other Expressions: Possible Implications for Historical and Evolutionary Studies¹

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Abstract.

The focus of this paper is on using the rich morphology in Slavic, in particular Serbian, to illuminate some surprising properties of exocentric Verb-Object (VO) compounds. VO compounds used to be productive and abundant in various Indo-European (IE) languages, and many are still preserved, especially in names and nicknames (English *pickpocket*, *cutpurse*, *killjoy*, *Mar-wood*, *Shake-speare*; Serbian *ispi-čutura* (drink.up-flask – ‘drunkard’), *deri-koža* (rip-skin), *ključ-drvo* (‘wood-pecker’), *seci-kesa* (cut-purse), *vrti-rep* (wag-tail), *Popi-voda* (drink-water)). Unlike in English or Italian, Serbian VO compounds unmistakably feature an imperative verb form ending in *i/j*, followed by a complement (Ferrari 2005 argues that the morphology in Italian is aspectual, not imperative).

Only a historical excursus can shed light on this morphological curiosity. Slavic imperative has been proposed to descend from the ancient proto-IE injunctive form, via optative mood (Stevanović 1964, Kiparsky 1968). Injunctive specialized for non-indicative, ‘irrealis’ moods, expressing wishes, commands, and/or exclamations (cf. English frozen expressions: *Long Live the King*; *God forbid*; and comparable Serbian expressions, which feature the imperative: *Pomози Bog* (Help-IMP God); *Budi-Bok-s-nama* (Be-IMP-God-with-us)). Progovac (2006a) argues that comparable tenseless forms are also found in English Mad Magazine examples and other nonsententials (e.g. *Him worry?!*, *Me miss a party?!*), where the interpretation again ranges over a variety of non-indicative/irrealis moods. I propose that VO compounds in fact preserve this ancient mood morphology, which in Serbian happens to have survived as imperative. That this form used to have a wider range of uses is also evident in some dialects of Serbian, which still use the so-called Historical Imperative in narratives (cf. the more familiar Historical Present) (... *ja udri*, *radi od jutra do mraka*, *a žena opet zavezuj novce ...*, *mesi*, *peci* ... ‘I go-IMP, work-IMP from morning to dark, and wife again tie-IMP money, knead-IMP, bake-IMP...’ (Maretić).

It is conceivable that these compounds are fossils/traces of a stage in language evolution in which syntax was able to combine default Tense/mood forms with default Case forms in creating meaningful clauses (see Progovac 2006b; 2006c). These compounds are created by a single application of the principle Merge. Some corroboration for the idea comes from language acquisition data.

1. Fossilized Imperative Elsewhere

In addition to VO compounds, which will be the focus of Section 2, fossilized Imperative is also found in frozen exclamative/optative forms (1), and in narratives (3-4), where it is referred to as ‘Historical Imperative’, on analogy to Historical Present.² All these are arguably ancient

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² Some other “noncanonical” uses of Imperative in Slavic have been discussed, most recently in e.g. Dvořák and Zimmermann (to appear) for Slovenian and Jakob (to appear) for Russian (thanks to Steve Franks for pointing these out to me). For example, in Slovenian and Russian, Imperative is found in subordinate clauses, where one would rather expect Subjunctive, and where Imperative does not show its expected imperative/command force.

uses of language. In all these uses, the imperative form combines/merges with default Case nouns (surfacing as Nominative), whether subjects or complements, and behaves like a non-finite form in that it does not show Tense or finiteness, and does not require or Case-mark its subject.

Serbian frozen exclamatives/optatives

- (1) *Pomoz-i Bog!* (Help-IMP God); *Bud-i-Bok-s-nama!* (Be-IMP-God-with-us)

The English counterparts are also fossilized forms, which involve a non-finite (at least non-agreeing) verb form (see Kiparsky 1968).³

- (2) *Long Live the King!*; *God forbid!*

Serbian ‘Historical Imperative’ (used in narratives; cf. Historical Present)

- (3) “... ja udri, radi od jutra do mraka, a žena opet zavezuj novce u trista uzlova, mesi, peci...”
(Maretić 1931, 537)

‘... I go-IMP, work-IMP from morning to dark, and wife again tie-IMP money in three hundred batches, knead-IMP, bake-IMP...’

- (4) Pre rata nikako nisu letovali u gradu, neko kako naidji leto, oni ti lepo nabavi ogrev za zimu, smesti ga u podrum i posvršavaj druge poslove, uzmi decu, pa hajd na Zaltibor.
(Stevanović, 1974, p. 708; see also Belić 1960)

‘Before the war, they would never spend-PAST their summers in town, but come-IMP summer, they nicely prepare-IMP fuel for the winter, put-IMP it in the basement, and finish-IMP other errands, take-IMP the kids, and go-IMP to Zlatibor.’

(cf. English expression: *Come winter*, ...)

³ In English it is not clear what the form is, Subjunctive, Imperative, or something else. Serbian does not have Subjunctive at all. Kuryłowicz (1964) claims that Subjunctive developed more recently and is absent in Germanic and Balto-Slavic. On the other hand, Kerns and Schwartz (1974) claim that OHG has an Optative survival in Subjunctive.

These forms are not unlike the (semi-productive) ‘Mad Magazine’ forms: (e.g. *Him worry!*?), analyzed in Progovac (2006a) as tenseless root small clauses, possibly bare VPs, with the subject surfacing with default (accusative) Case, and the verb selected with no Tense features, where the semantic consequence of No Tense is the non-indicative/irrealis interpretation (see also Akmajian 1984). Notice that the subjects in such utterances are in the Accusative Case, Accusative being the surface realization of the default Case (No Case) in modern-day English (see Schütze 2001).

Serbian Imperative forms exhibit the ending *-i* when following a consonant, and *-j* when following a vowel. Although the verbal forms above correspond unambiguously to modern-day Imperative, the above expressions cannot be analyzed as synchronic Imperatives, neither by overall form nor by meaning: in Serbian, the noun is not Vocative (cf. Vocative *Bože*), but rather (default) Nominative. In present-day Serbian, only a Vocative noun can accompany a verb in such Imperative form. Similarly, in modern English, Vocative count nouns do not occur with articles (**The King, please live long!*), in contrast to *Long Live the King*. The appearance of Nominative Case on the subject is explained by the fact that Nominative was the default/unmarked Case in IE (see e.g. Kiparsky (1968) for the Conjunction Reduction argument; see also Thurneysen 1961, Humbert 1954 and Havers 1928). Many IE languages still have Nominative as default, including Serbian. As far as Historical Imperative is concerned, in a story-telling setting, tensed forms are not necessary, as evidenced by the frequent use of the so-called Historical Present cross-linguistically, which, according to Kiparsky (1968), is not a Present Tense at all, but another realization of an unmarked, default tense form.

Of importance for historical analysis is the following observation: when more specific Case forms emerged, Nominative was still used in ‘elsewhere’ positions, that is, positions not covered by newly emerged Cases, such as predicative positions, citation forms/titles, in isolation, in root small clauses, etc. Since English switched to Accusative as Default Case (relatively recently; see e.g. Schütze 2001), all these positions in recent (non-prescriptive) English are filled by Default Accusative: *This is me. / (Who is it?) Me. / Me worry?! / Me* (in book titles).

Still, it is not clear why the verb should be in the imperative form. It is commonly held that Slavic Imperative descended from the ancient Proto-Indo-European (PIE) Injunctive form (e.g. Kiparsky 1968, Kuryłowicz 1964; Kerns and Schwartz 1974), perhaps via Optative, which also descended from Injunctive (Belić 1960, Stevanović 1974; 1966). According to Kerns and Schwartz (1974), IE Injunctive had multiple functions initially, which diverged later. Kuryłowicz (1964) argues that Injunctive was the only Mood in earliest PIE, used both for the Indicative (assertive) mood, and for other (modal) moods, such as Imperative, Exclamative, Optative. With the advent of tensed/indicative forms, its use in the indicative function gradually became obsolete, and Injunctive at some point came to express only non-indicative (elsewhere) moods.⁴

⁴ Even its modal functions were being more and more expressed by the then newly formed Optative; still some modal functions continued to be expressed by the Injunctive. The historical successors of the Injunctive were the Optative and the Imperative (Kuryłowicz 1964).

- (5) i) Injunctive in Pre-IE (one form, unmarked for mood/tense) →
- ii) Indicative (Tense) emerges: Two forms: new Indicative and old Injunctive (the latter now specializing for only non-Indicative; everything but Indicative) →
- iii) The Injunctive form in Slavic further specializes for Imperative/Optative interpretations →
- iv) The form narrows down its meaning even further to just Imperative (command) in present-day Serbian

My claim is thus that these petrified verbal forms in English and Serbian derive from a common ancient form, such as Optative, and ultimately from early PIE Injunctive. The forms in Serbian have survived clearly as Imperative.

If this analysis is on the right track, it has the following implications for the historical analysis of morpho-syntax, parallel to the one reached for default Case above: the newly emerged forms do not replace the old forms, but are added to the mix, forcing the older (default forms) to restrict their functions to the ‘elsewhere’ functions.

2. Fossilized Imperative in Exocentric VO Compounds

Exocentric compounds used to be productive, but are now, in most languages, only preserved as unproductive fossils, mostly in names, nicknames, and in derogatory expressions which probably derive from nicknames. The following are some examples from English (see Weekley 1916 for many more English surnames):

- (6) *saw-bones, pick-pocket, scare-crow, kill-joy, Mar-wood, Shake-speare*

Not only are such compounds no longer productive, but they are also ill-behaved with respect to the rules and principles of modern-day morpho-syntax: they do not have a head - hence the label ‘exocentric.’ Adding to the curiosity, such compounds appear in what looks like Imperative form in Serbian.

Many verbs in Serbian have distinct forms for the base and for the Imperative, and compounds formed of such verbs show unambiguously that their verb is in what would be present-day Imperative form.

- (7) a. *seci-kesa* (cut-purse) (*seci*.IMP, as opposed to *sek*.ROOT (e.g. *trbo-sek* (stomach-rip(per)), *pre-sek* (cross-cut), *sek-ač* (cut-ter)), *seći*.INF, *seće*.3SG.Present);
 b. *vuci-batina* (pull-whip) (*vuci*.IMP, as opposed to *vući*.INF, *vuče*.3SG.Present, *vuk*.ROOT, as evident in *vuk-ao*.PastParticiple);
 c. *deri-koža* (rip-skin) (cf. *deri*.IMP, as opposed to *derati*.INF, *dere*.3SG.Present, *der*.ROOT, as in *oblak-o-der* (skyscrap(er))).

A unified generalization of the morphological make-up of Serbian VO compounds must be:

- (8) (Fossilized) Imperative + Noun (Default Case)⁵

The following table offers more examples, with IMP following a form which is unambiguously imperative; all the other forms are also imperative, even though not unambiguously. Some proper name VO compounds are given in Appendix 1.

Table: Some Common VO compounds in Serbian

<i>cepi-dlaka</i> ⁶	‘split-hair = hairsplitter’	
<i>deri-koža</i>	‘rip-skin = person who rips you off’	IMP
<i>guli-koža</i>	‘peel-skin = person who rips you off’	
<i>ispi-čutura</i>	‘drink.up-flask = drunkard’	
<i>jebi-vetar</i>	vulgar: ‘screw-wind = idle, useless person’	IMP
<i>jedi-vek</i>	‘eat-life = one who constantly annoys’	IMP
<i>#kljuj-drvo</i>	‘archaic: peck-wood = wood-pecker’	IMP
<i>krpi-guz</i>	‘patch-bottom = who/what clings onto you’	
<i>muti-voda</i>	‘muddy-water = one who muddies waters’	
<i>pali-drvce</i>	‘burn-stick = matches’	
<i>pali-kuća</i>	‘burn-house = one who burns houses’	
<i>pazi-kuća</i>	‘keep-house = house-keeper’	
<i>priši-petlja</i>	‘sow-loop = who clings onto another’	IMP
<i>probi-svet</i>	‘break-world = wanderer’	IMP
<i>raspi-kuća</i>	‘waste-house = who spends away property’	IMP
<i>razbi-briga</i>	‘break-worry = game/entertainment’	IMP
<i>seci-kesa</i>	‘cut-purse = pick-pocket’	IMP
<i>teci-kuća</i>	‘earn-house = who runs household well’	IMP
<i>vadi-čep</i>	‘takeout-cork = corkscrew’	
<i>vrti-guz</i>	‘spin-bottom = restless person’	

⁵ All the compounds in the citation form have their nouns in the Nominative Case (*seci-kesa*-NOM), and not in the Accusative Case (*seci-kesu*-ACC), which would be obligatory in a sentential Imperative counterpart: *Seci kesu!* / **Seci kesa!* When these compounds are used in a clause, they get inflected for the appropriate Case assigned to their position in the clause.

⁶ Even though *cepaj* is the current Imperative form of the verb *cepati*, *cepi* morpheme appears as the imperative form with prefixed verbs, as in *pre-cepi* (cut).

(9)	slm-aggrn	suck.in-flour	'butterfly'
	ssum-sitan	suck-cow	'insect'
	ssum-izi	suck-fly	'thrifty person'

Chinese (from Murray 2004)

(10)	dean-shin	stay-stomach	'refreshments'
	doong-shyh	arrange-affairs	'board member'
	liing-shyh	lead-affairs	'consul'
	ua-eel	dig-ear	'ear-pick'

What is special about Slavic (e.g. Serbian) is that the verbal form has preserved a morpheme which only makes sense if analyzed as a fossil of an ancient verbal form.

My argument is in fact that these compounds represent double fossils, or twice-removed fossils. First, and more recently, these compounds preserve the sounds and the morphemes of Stage (iii) as identified in (5), repeated below. At this stage, the Merge of the unmarked Injunctive form with an unmarked noun form was still a productive syntactic strategy.⁹ Once this form specialized only for command meanings, this compound formation became obsolete/unproductive in Serbian, rendering these compounds fossils.

But there is another sense in which these compounds can be analyzed as fossils of an even more ancient stage of language, say pre-IE: the basic syntactic frame that these compounds preserve, that of a combination of an unmarked verb form with an unmarked noun form, would be a creation of much more ancient nature. This frame would have been inherited from stage (i) to stage (iii) as already an ancient form.

- (5)
- i) Injunctive in Pre-IE (one form, unmarked for mood/tense) →
 - ii) Indicative (Tense) emerges: Two forms: new Indicative and old Injunctive (the latter now only used for non-Indicative; everything but Indicative) →
 - (iii) The Injunctive form in Slavic specializes for Imperative/Optative interpretations →
 - iv) The form further narrows down its meaning to just Imperative (command) in present-day Serbian

⁹ If VO compounds were originally used for naming purposes, given that they mostly survive as either names or derogatory nicknames (Mihajlović 1992), then in that design they may have expressed (solemn) wishes/commands for the person named, for which an optative/imperative mood would have been perfectly suited (cf. the fossilized *Long Live the King!*). The humorous use of this otherwise solemn naming strategy may have resulted in derogatory nicknames.

In sum, VO compounds instantiate a very basic, ancient, syntactic structure, whose syntax only shows a single instance of Merge, combining a verbal form with no other grammatical features (default Tense/Mood form, fossilized as Imperative in Serbian) and a noun with no Case (default Case, Nominative). Thus, even though it selects a complement, the verbal form does not check (Accusative) Case on its complement. What these compounds ultimately preserve/fossilize is thus the syntactic frame in (11), which is no longer productive in Serbian or in English (but see Section 3 regarding the use of such compounds in language acquisition):

(11) Merge: Verb (unmarked Tense/Mood) + Noun (Unmarked Case)

While this syntactic creation may have been used for other purposes (perhaps as a VP expressing commands or wishes), in compounds it has been preserved as a label/name mostly for people and places (it is also used for names of plants and animals (e.g. birds, insects)).¹⁰

3. Imperative (Compounds) in Language Acquisition

As pointed out in Lock and Peters (1996a, 782), recent views on ontogeny and phylogeny permit the use of data from language acquisition to corroborate other evidence regarding language evolution. In this respect, it is important that Imperative in general has been reported for Slavic (e.g. Russian, Slovenian) to be among the first productive verbal forms used by young children (see e.g. Bar-Shalom and Snyder 1999). It is conceivable that Imperative is a paradigm case of an irealis/unmarked mood form, and that children thus choose this form for their initial utterances. The English examples in (12) illustrate children's VO creations with an unmarked verbal form, which might be equivalent to the Slavic Imperative in that it is an unmarked mood/tense form:

(12) Get toys. Get diaper. Open box. Build tower. Eat apple juice. No go in. See window.
Shake hand. Make arms. Get sweets.

¹⁰ According to Gärdenfors (2004), in an evolutionary setting there are two kinds of entities that remain relatively stable within a community: people and places. One can speculate that the early stages of language contained names for people and places (Dunbar 1996; Worden 1996). According to Rolfe (1996), ancient people, before IE settled, left names for places, e.g. rivers.

Even though I am not aware of any such experiments with Serbian children, an experiment performed on English children identifies a stage of productive use of VO compounds, as reported in Clark, Hecht & Mulford (1986), who prompted children to produce novel synthetic compounds (see also Clark and Barron 1988; Murray 2004). At around three, children produced compounds such as ‘grate-cheese’ instead of ‘cheese-grater,’ ‘rip-paper’ instead of ‘paper-ripper,’ and ‘bounce-ball’ instead of ‘ball-bouncer’. According to the authors, they begin to form compounds with VO predicate order, basically from verb phrases, relying initially on sentential order of elements (26). At the next stage, there was a tendency to produce compounds with misplaced affix: ‘dry hairer’ (cf. ‘hair dryer’) and ‘fix biker’ (cf. ‘bike fixer’). It was only after the acquisition of the affix that the children began to move the complement/object before the verbal form, creating the adult OV-er order. How can one explain this pattern?

While VO compounds show what can be argued to be the basic VO order, derived by a single instance of Merge, the endocentric compounds, introducing an agent with an agentive suffix (-*ac* in Serbian: *kamen-o-rez-ac*; -*er* in English: *stone-carv-er*), are syntactically more complex and involve at least two instances of Merge/Move. They show evidence of complement/object movement, which in Serbian is accompanied by an -*o* morpheme, analyzed in Progovac (2005) as a default agreement marker, a reflex of movement. This analysis assumes and defends an underlying small clause derivation of both types of synthetic compounds (see e.g. Murray 2004). The findings in Clark, Hecht & Mulford (1986) suggest a derivational analysis of -*er* type compounds, which involves movement and more syntactic complexity (also signaled by the -*o* morpheme in Serbian -*ac* compounds). On the other hand, the findings suggest a base-generated analysis of VO compounds, which involves a single instance of Merge and no Move, consistent with the conclusions in Section 2.

4. Conclusions and Implications

Fossilized Imperative is found in a variety of mostly unproductive constructions in Serbian, including in frozen exclamatives, narratives, and name/nickname compounds (all of which can be assumed to involve ancient use of language). In all the above uses, Imperative form combines/merges with default Case nouns (Nominative), whether subjects or complements, and behaves like a non-finite form in that it does not show Tense or finiteness, and does not require or Case-mark its subject.

These syntactic creations, and in particular exocentric compounds, are proposed to be fossils of a stage of syntax which productively created root (small) clauses with no Tense/Finiteness, and with no Case. The compounds in question only show a single instance of Merge, and no Move, combining a verbal form with no grammatical features (default Tense/Mood form) and a noun with no Case (default Case). If such simpler syntax indeed operated at some historical point, then this has ramifications for the studies of evolutionary syntax, in which it is commonly claimed that syntax is all or nothing, and that there cannot be any intermediate stages of syntax. In particular, Bickerton (In Press; 1998, 354) advocates ‘catastrophic evolution’ of syntax and claims that there can be no intermediate stage of syntax: one either deals with a syntaxless language (children under two, apes), or a language with full-blown syntax. Likewise, Chomsky 2005; Hauser, Chomsky, and Fitch 2002; Fitch, Hauser and Chomsky 2005, suggest that once the combinatorial principle of Merge became available, that all the rest of syntactic complexities automatically fell into place, including infinite recursion and embedding. For them, recursion is an absolute minimum that human language must possess. As phrased in Berwick (1998, 338-339):

“In this sense, there is no possibility of an ‘intermediate’ *syntax* between a non-combinatorial one and full natural language - one either has Merge in all its generative glory, or one has no combinatorial syntax at all. While there can be individual words, in a sense there is only a single grammatical operation: Merge.”

The opposite, gradualist position can be found in e.g. Pinker and Bloom 1990, Newmeyer 1991, 1998, Jackendoff 2002, Pinker and Jackendoff 2005.

If this analysis of exocentric compounds is on the right track, it supports a gradualist view of syntax, with a stage in which there was no Move, and only a single instance of Merge was used, which served to combine words with no grammatical features. In addition to the principle of Merge, the fixed word order in these small clauses, as well as the use of a clearly verbal form, suggests that syntax is operative, albeit in a rudimentary form. Such a grammar would be expected not to show embedding/recursion. As far as I am aware, no exocentric compounds have been reported in the literature that show evidence of recursion, such as:

(13) %scare-[pick-pocket] ‘pick-pocket scarer’

In contrast, the English –er compounds are recursive (although not the –ac compounds in Serbian):

(14) truck-driver chaser (chaser of truck drivers)

Needless to say, the evolutionary connection in the analysis of exocentric compounds is rather speculative, and much more research and interdisciplinary evidence will be necessary to make a solid case for such analysis. This paper is a suggestion for such future project.

Appendix 1. Some Proper Noun VO Compounds

(Place names are marked as (P); the rest are personal names; phonological processes have blurred the morphological boundaries in many names, both in Serbian and English. Likewise, the meanings of individual morphemes may have undergone semantic changes, and many are not transparent.)

Bodi-roga	‘pierce-horn?’	IMP
Bori-slav	‘fight-glory’	
Bori-voj	‘fight-war’	
Brani-mir	‘defend-world?’	
Budi-mir	‘be-world?’	IMP
Budi-sav	‘be-?-’	IMP
Budi-sava (P)	‘be-?-IMP’	
Časti-slav	‘honor-glory’	(became Časlav, Yonge 1863)
Deli-blato (P)	‘divide-mud’	
Jezdi-mir	‘ride-world’	
#Kazi-mir	‘command- world’	(Yonge 1863)
#Kolji-vratić	‘cut-neck-IMP’	
Krasi-mir	‘decorate- world’	
Krasi-slav	‘decorate-glory’	
Kruni-slav	‘crown-glory’	
Popi-voda	‘drink-water’	IMP
Radi-mir	‘work-world’	
Radi-voj	‘work-war’	
Radi-slav	‘work-glory’	
Rasti-slav	‘grow-glory’	(Yonge 1863)
Stani-mir	‘stay- world’	IMP
Stani-slav	‘stay-glory’	IMP
Sveti-mir	‘bless- world’	
Sveti-slav	‘bless-glory’	
Trpi-mir	‘endure-world’	
Strati-mir	‘waste-world’	
Veli-mir	‘command world?’	
Vladi-mir	‘rule- world’	
Vladi-slav	‘rule-glory’	
Vladi-voj	‘rule-war’	
Voji-slav	‘fight-glory’	
Vrati-slav	‘return-glory’	
Zlati-bor (P)	‘golden-pine’	
Zlati-slav	‘golden-glory’	
Zori-slava	‘wake-glory’	

Appendix 2: Some Crosslinguistic Parallels in VO Compound Formation

English	Serbian	French	Polish	Russian	German
Drink-water	Popi-voda	Boileau			
cutpurse	seci-kesa	coupe-bourse	rzezi-mieszek		
cut-throat	Kolji-vratić	coupe-gorge			
lick-pot	liži-sahan				
Bere-water			wozi-woda		
Burn-house	pali-kuća				
Make-peace	Gradi-mir				
wag-tail	vrti-rep			verti-hvostka	
Drynk-pany					Trink-geld
Trede-water	Gazi-voda				

(Another possible parallel is between *Love-good*, where ‘good’ probably stands for ‘God,’ and the Latin *Ama-deus*.)

Even when the combinations are not the same, the same basic pieces, verbs and nouns, are used in such compounds, such as *burn, break, pierce, cut, drink, lick, wag, turn, gather, kiss, tread, gather; God, purse, water, throat, tail*.

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