

Slovenian adverbial endings argue for a specific adverbial syntax

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ABSTRACT

The paper claims that the *-o* ending on Slovenian deadjectival adverbs is not a designated derivational morpheme for creating adverbs. Against the background of previous literature that questions the existence of adverbs as a category of its own (e.g. Bowers, 1975; Baker, 2003), the paper proposes that the actual source of Slovenian deadjectival adverbs is an adverbial reduced relative clause inside which regular predicative adjectives carry the neuter singular agreement morpheme, which is *-o*. The paper presents several arguments suggesting that adverbs indeed have a much richer syntactic structure than typically assumed.

KEYWORDS adjectives · adverbs · reduced relative clauses

1 INTRODUCTION

Slovenian adverbs that are derivationally related to adjectives typically carry the *-o/-e* ending, as in (1). For the sake of simplicity, we will simply be talking about the *-o* ending from here on, as the *-e* ending is just a morphophonologically conditioned allomorph of *-o* (Toporišič, 2000, p. 298). Similarly, the adverbs derivationally related to deverbal adjectives, as in (2), also carry the same morphological ending.¹

- (1) hitro, dobro, sveže, pametno, ...
 quickly well freshly cleverly
- (2) tekoče, vprašujoče, obotavljajoče ...
 fluently questioningly hesitantly

An *-o* ending, also with a morphophonologically conditioned *-e* variant, is also found with adjectives and participial verb forms, on which it signals neuter singular agreement with the head noun, (3)–(4), or with the subject, (5); and as can be seen in (3-c), (4-c) and (5), an *-o* (which likewise has a morphophonologically conditioned *-e* variant) also functions as the nominal ending for nominative case in neuter declension.

- (3) a. hiter čoln
 fast.NOM.M.SG boat.NOM.M.SG
 ‘a fast boat’
- b. hitra ladja
 fast.NOM.F.SG ship.NOM.F.SG
 ‘a fast ship’
- c. hitro plovilo
 fast.NOM.N.SG vessel.NOM.N.SG
 ‘a fast vessel’

¹In the Slovenian linguistic tradition these are called “deležja na -č”, i.e. *-č*-participles, and are considered verbal forms.

- (4) a. tekoča voda
 fluent.NOM.F.SG water.NOM.F.SG
 ‘running water’
 b. tekoč plin
 fluent.NOM.M.SG gas.NOM.M.SG
 ‘liquefied gas’
 c. tekoče gorivo
 fluent.NOM.N.SG fuel.NOM.N.SG
 ‘liquid fuel’
- (5) Gorivo se je podražilo.
 fuel.NOM.N.SG REFL AUX.SG got-expensive.N.SG
 ‘The price of fuel went up.’

At first sight, the two morphemes, the “derivational” morpheme that turns adjectives into adverbs and the “inflectional” nominal and adjectival morpheme (as well as the participial agreement ending for neuter singular), appear to be distinct morphemes, or they are at least typically treated as two distinct morphemes, presumably due to their seemingly distinct functions/grammatical roles. But given their phonemic identity, an obvious question to ask is whether the two *-o* endings are at least related.

The formal identity between the nominal and adjectival neuter singular agreement morpheme and the adverbial morpheme is not restricted to Slovenian, and it has not gone unnoticed. Most relevantly it exists to various degrees in other Slavic languages as well; see Caha & Medová (2009) for Czech and Rozwadowska (2011) for Polish.

Echoing old ideas that adverbs are not an independent lexical category (Bowers, 1975; Baker, 2003), we will argue that the two endings are in fact one and the same ending, and that consequently, the adverbs derived from adjectives are really just adjectives carrying neuter singular agreement. This has also been argued by Caha & Medová (2009) and by Rozwadowska (2011) for Czech and for Polish, respectively. We will go a step further and also offer an explanation for why adverbial marking gets to be instantiated with adjectival agreement. Specifically, we will argue that the adverbial instantiation is derived via a reduced relative clause-like structure.

In the remainder of this paper we will first provide some more background on neuter singular agreement and manner adverbs (§1.1 and §1.2), then present our proposal (§2), then offer more evidence to support our proposal (§3), and finally discuss how the present proposal can be extended (§4).

1.1 MORE BACKGROUND ON AGREEMENT

The neuter singular ending *-o* is found on nouns, adjectives, and participles. It appears both inside noun phrase internal concord agreement and as predicate agreement with N.SG subjects such as the one in (6), but it also realizes agreement on the participle in weather sentences, (7), in sentences with dative subjects, (8), in sentences with sentential subjects, (9), and in sentences with nonagreeing subjects, e.g. subjects containing numerals higher than four, (10) (from here on called ‘5&Ups’, following Marušič & Nevins, 2010). For all of the cases in (7)–(10), there is no nominative subject with which the verb could agree, which is why it has been argued that the observed N.SG agreement on the verb is the default agreement value (cf. Franks, 1994, 1995).

- (6) Mickino staro kolo je že prodano.
 Micka’s.N.SG.NOM old.N.SG.NOM bike.N.SG.NOM is already sold.N.SG.NOM
 ‘Micka’s old bike has already been sold.’
- (7) Včeraj je cel dan deževalo.
 yesterday AUX.SG whole day rained.N.SG
 It rained all day yesterday.’

- (8) Vladki se je sanjalo.
Vladka.F.SG.DAT REFL AUX.SG dream.N.SG
'Vladka was dreaming.'
- (9) [_{CP} Da je Ada ujela zajca], je odmevalo po kampu.
that AUX.SG Ada caught rabbit AUX.SG echoed.N.SG around camp
'It went around the camp that Ada caught a rabbit.'
- (10) 5 punc je dirkalo s kolesi.
5 girls.F.PL.GEN AUX.SG race.N.SG with bicycles
'5 girls were racing with bicycles.'

A good argument to show there are two types of N.SG verb agreement comes from coordinated subjects. While coordinated neuter singular nouns trigger neuter dual (or to some degree also masculine dual) agreement, as in (11), coordinated 5&Ups, for example, trigger neuter singular agreement, (12), just like coordinated bare singular neuter demonstratives, as in (13) (cf. Marušič & Nevins, 2010). The same is true also of coordinated sentential subjects (cf. Despić, 2016, for a similar observation in Bosnian/Croatian/Montenegrin/Serbian).

- (11) Mesto in naselje sta bili umazani.
town.N.SG and settlement.N.SG AUX.DU been.N.DU dirty.N.DU
'The town and the settlement were dirty.'
- (12) 5 punc in 5 fantov je igralo nogomet.
5 girls.F.PL.GEN and 5 boys.M.PL.GEN AUX.SG played.N.SG soccer
'5 girls and 5 boys were playing soccer.'
- (13) a. Tole in tole {bo šlo / *bosta šla/šli } v
this.N.SG and this.N.SG will.SG go.N.SG will.DU go.M.DU/N.DU in
smeti.
trash
'This and this will be thrown in the garbage.'
- b. (To,) kar si videl, in (to,) kar si slišal, pride / *prideta na
this what aux saw and this what aux heard comes.SG comes.DU on
mizo kasneje.
table later
'What you saw and what you heard will be discussed later.'

Alternatively, one could say that in all these cases there is a null expletive with neuter singular phi-features in the subject position. Or it could also be that these examples, as a group, exhibit both options, with (7) featuring agreement with a null pronominal element (like a null expletive) and with (8)–(10) featuring default agreement. At this point we have no need to commit to one or the other option as both are compatible with what we will be proposing. The important point here is only that N.SG agreement is used when there is no regular nominative DP subject.

Given what we have just said, the structure of these examples is either that of (14), where the subject is a null expletive with (default) neuter singular phi-features triggering what looks like default neuter singular agreement, which is really just agreement with the expletive subject that carries (default) neuter singular features, or their structure is that of (15), where the subject position is occupied by a non-nominative subject which cannot trigger subject-predicate agreement (because only nominative subjects can trigger agreement) and as a result the predicate is left without any phi-feature specifications and thus ends up with default values.

- (14) [TP [_{DP} *pro*_{DEF}] [T [[SUBJ.]_{non-NOM} [VP V_{DEF}]]]]
- (15) [TP [SUBJ.]_{non-NOM} [T [VP V_{DEF}]]]]

1.2 MORE ON ADVERBS

Adverbs come in many types and flavors. A partial list of the various types of adverbs includes: manner adverbs, temporal adverbs, aspectual adverbs, modal adverbs, degree adverbs, place adverbs, etc. In Slovenian some of these adverbs are morphologically related to adjectives. Among deadjectival adverbs the most typical (though not only) kind appears to be manner adverbs, (16), and to a lesser extent also degree adverbs, (17):

- | | | | |
|------|---|------|---|
| (16) | <i>tiho</i> 'quietly'
<i>nežno</i> 'gently'
<i>strastno</i> 'passionately'
<i>veselo</i> 'happily'
<i>jezno</i> 'angrily'
<i>drzno</i> 'boldly'
<i>nerodno</i> 'awkwardly'
... | (17) | <i>čisto neumen</i> 'totally nuts'
<i>občutno boljši</i> 'significantly better'
<i>veliko boljši</i> 'much better'
<i>malo slabši</i> 'a little worse'
<i>svetlo zelen</i> 'light green'
<i>rahlo zelen</i> 'slightly drunk'
<i>visoko razvit</i> 'highly developed'
... |
|------|---|------|---|

The “higher” temporal, aspectual, and place adverbs typically do not share the *-o* ending, as shown in (18), but some of the “higher” adverbs nevertheless do have it, as is the case with certain frequency adverbs, (19), and many modal adverbs, (20), some of which are also clearly related to (modal) adjectives.

- | | |
|------|---|
| (18) | a. aspectual – <i>spet, že, še</i> ...
again already yet
b. temporal – <i>včeraj, danes, jutri</i> ...
yesterday today tomorrow
c. place adverbs – <i>zunaj, notri, ven</i> ...
outside inside out |
| (19) | frequency – <i>pogosto, često, redko</i> ...
frequently often rarely |
| (20) | modal – <i>možno, mogoče, sigurno, gotovo, verjetno, lahko</i> ...
potentially maybe surely necessarily probably possibly |

We do not want to go any deeper into the classification of Slovenian adverbs. See Marušič (2022) for a slightly more refined classification and more discussion. A more detailed classification of Slovenian adverbs is provided in Žele (2012).

2 PROPOSAL

Intuitively speaking, adverbs are the clausal counterparts of adjectives. Whereas adjectives modify or specify the properties of individuals, adverbs modify or specify the properties of the entire event.

If we treat adverbs the same way as adjectives, that is, in parallel to (21), then (22-a) will give us (22-b).

- | | |
|------|--|
| (21) | a. slow eating
b. $\exists x$ eating(<i>x</i>) & slow(<i>x</i>) |
| (22) | a. eat slowly
b. $\exists e$ eat(<i>e</i>) & slow(<i>e</i>) |

Indeed, this is what Davidson (1967) suggested for the interpretation of adverbs (see also Parsons, 1990; Larson & Segal, 1995). Adverbs are verbal arguments and their semantic contribution can be made parallel to the other arguments. The interpretation of (23-a) is given in (23-c).

- (23) a. Miha swam quickly yesterday.
 b. “There is an event e for which it holds: e is an event of swimming; the agent of e is Miha; the time of e is yesterday; e happens in a quick way.”
 c. $\exists e$ swimming(e) & AGENT(e ,Miha) & TIME(e ,yesterday) & MANNER(e ,quickly)

2.1 SYNTACTIC PROPOSAL

In line with Caha & Medová (2009), who analyze two types of Czech adverbs as differently-cased adjectives, we claim that at least our *-o*-adverbs are not just parallel to adjectives but actually *are* adjectives.

As we mentioned above, semantically speaking, adverbs predicate over events. We claim that if predication over events exists already at the level of syntax, then the morphological make-up of deadjectival adverbs falls out naturally.

Suppose that in parallel to depictives, adverbs form a new predicational relation inside the clause, but that unlike depictives, they modify the event rather than any of the nominal arguments/participants. (Manner adverbs, more specifically, modify the manner of the event and other types of adverbs modify other properties of events.) On this view, adverbs (at least manner adverbs) would really just be reduced adverbial (free-)relative clauses/small clauses modifying clausal events, something along the lines of what is paraphrased in (24) or (25).

- (24) a. Janez je včeraj plaval, [kar je bilo hitro].
 Janez AUX yesterday swam which AUX.SG been.N.SG quick.N.SG
 ‘Janez swam yesterday, which was quick.’
 b. Janez je včeraj plaval [kar je bilo hitro].
 Janez AUX yesterday swam which AUX.SG been.N.SG quick.N.SG
 ‘Yesterday Janez swam quickly.’
- (25) a. Miha je plaval, [to je bilo hitro].
 Miha AUX swim this.N.SG AUX been.N.SG quick.N.SG
 ‘Miha swam quickly, this was quick.’
 b. Miha je plaval [to je bilo hitro].
 Miha AUX swim this.N.SG AUX been.N.SG quick.N.SG
 ‘Miha swam quickly.’

As manner adverbs constitute the main predicate of this reduced (free-)relative clause/small clause they will agree with the subject of the relative/small clause. We assume that the subject of this (free-)relative/small clause is an event pronoun (or more specifically, a pronominal element referring to the manner of the event), which in Slovenian is the (neuter singular) expletive-like demonstrative element *to*, so what will surface is the adjective with default neuter singular agreement, hence the *-o* ending.

To in (25) is not an expletive, it is the N.SG demonstrative; nevertheless, it is not clear that it carries any phi-features of its own, as suggested by the fact that when coordinated with another *to* or *to*-like demonstrative, such coordination does not trigger dual agreement, as shown in (13) above. The N.SG agreement, then, has two potential sources; it is either agreement with this event-pronominal, or it is the default agreement surfacing because this event-pronominal does not have any phi-features of its own.

As pointed out by a reviewer, in light of our claim that the adverb is really a predicative adjective inside some small-clause-like structure, when a manner adverb modifies coordinated VPs and thus refers to two (or more) events, one might expect the adjective to surface with dual or plural agreement. As shown in (26) this is not what we find. But since in our analysis adverbial ending is really default neuter singular agreement, we actually do *not* expect to find dual or plural agreement in (26), just like we do not find it in other cases where default agreement constructions are used with coordinated subjects, as shown above in (12) and (13).

- (26) Marko pije in je hitro / *hitri / *hitra.
 Marko eats and drinks fast.N.SG fast.N.DU fast.M.DU
 ‘Marko eats and drinks fast.’

Note that we are not inventing a new type of adjectival modification here: some attributive adjectives have also been argued to be reduced relative clauses (cf. Cinque, 2010, and sources cited therein). For example, the adjective *beautiful* in (27) is ambiguous between an intersective, (27-a), and a non-intersective interpretation, (27-b).

- (27) Rose is a beautiful climber.
 a. Rose is beautiful and Rose is a climber.
 (i) Rose is a climber who is beautiful.
 b. Rose is a climber and her climbing is beautiful.

The fact that these are two different types of adjectives, or two ways in which this adjective combines with the noun, is most clearly shown by the non-ambiguous (28). The outer adjective is intersective, the inner adjective is not (cf. Larson & Marušič, 2004).

- (28) Rose is a beautiful ugly climber.
 a. \Rightarrow Rose is beautiful and her climbing is ugly.
 b. \nRightarrow Rose is ugly and her climbing is beautiful.

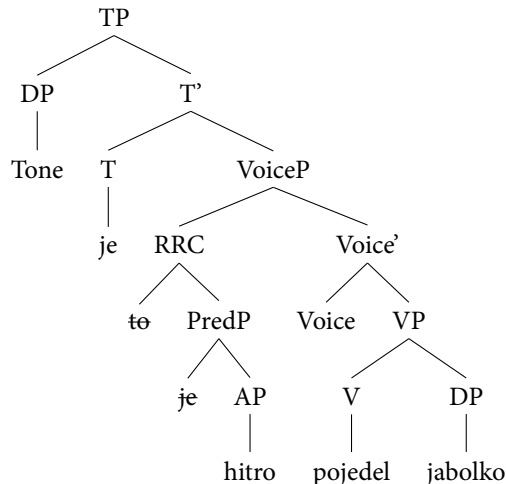
Cinque (2010) suggests that the intersective adjectives in (27)–(28) are really reduced relative clauses, so that the sentence in (28) has the structure in (29).

- (29) Rose is [[~~that is~~ beautiful] ugly climber].

For the time being, we assume that manner adverbs are simply reduced adverbial relative clauses. Following Cinque (1999), manner adverbs are located in the specifier of VoiceP, which we assume is also the position of the reduced relative clause containing the *-o*-marked predicative adjective performing the role of the “manner adverb”. The tree in (31) presents the proposed structure for the sentence in (30). The position of the auxiliary verb *je* and the participle are irrelevant for our purposes at this point, so we are only placing the auxiliary in the T head and leaving the participle inside the VP for simplicity reasons.

- (30) Tone je hitro pojedel jabolko.
 Tone aux quickly ate apple
 ‘Tone ate the apple quickly.’

(31)



3 ADDITIONAL SUPPORT

In this section we present four further arguments in support of our analysis.

3.1 EXTRACTION

A *wh*-phrase can be extracted from a regular predicative adjective, as in (32), which means that a predicative adjective is not an island for extraction in Slovenian.

- (32) a. Petrov tek je bil podoben kurjemu capljanju.
Peter's run AUX been similar chicken.DAT waddling.DAT
'Peter's run was similar to chicken waddle.'
b. Čemu je bil Petrov tek podoben?
What.DAT AUX been Peter's run similar
'What was Peter's run similar to?'

Extraction from the related adverb, on the other hand, is impossible, as shown in (33). The same contrast, just with a different *wh*-word, can also be observed in the pair in (33)-(35).

- (33) a. Peter je tekel podobno kurjemu capljanju.
Peter AUX ran similarly chicken.DAT waddling.DAT
'Peter waddled like a chicken (/ran similarly to a chicken's waddle).'
b. *Čemu je tekel Peter podobno?
What.DAT AUX ran Peter similarly
Intended: 'What did Peter run like?'
- (34) a. Njegovo govorjenje je bilo naklonjeno Greti Thunberg.
his speaking AUX been favorable Greta.DAT Thunberg
'His speaking was favorable towards Greta Thunberg.'
b. Komu je bilo naklonjeno njegovo govorjenje?
who.DAT AUX been favorable his speaking
'Who was his speaking favorable towards?'
- (35) a. Govoril je naklonjeno Greti Thunberg.
spoke AUX favorably Greta.DAT Thunberg
'He spoke favorably towards Greta Thunberg.'
b. *Komu je govoril naklonjeno?
Who.DAT AUX spoke favorably
Intended: 'Who did he speak favorably towards?'

Whereas these contrasts in extraction possibilities could, in principle, be subsumed under the adjunct island constraint (Ross, 1967), they still seem surprising if the adverb is a simple adverbial phrase with basically the same internal structure as a predicative adjective.

But on our proposal from above, the observed difference between predicative adjectives and adverbs actually falls out naturally. If adverbs are reduced adverbial (free-)relative clauses, extraction from them is banned for the same reason it is banned from other (free-)relative clauses, as in (36).

- (36) a. Peter je kupil le, kar je imel Miha.
Peter AUX bought only what AUX had Miha
'Peter bought only what Miha had.'
b. *Kdo je Peter kupil le, kar je imel?
Who AUX Peter bought only what AUX had
Intended: 'Peter bought only what who had?'

Admittedly, since we had questioned the explanation of the ungrammaticality of (33) with

the adjunct island constraint, it might seem odd that we now suggest explaining this with the relative clause island constraint. However, we believe that the relative clause island constraint is still considerably better understood than the adjunct island constraint.²

3.2 AP INTERNAL ORDER

To present the second argument in support of our analysis, let us start by pointing out that in Slovenian, adjectival complements and degrees precede adjectives when the adjectives are used attributively, but follow them in predicative position, as in (37) and (38).

- (37) a. Peter je kot strela hiter voznik.
Peter AUX as lightning fast driver
'Peter is a lightning fast driver.'
- b. Peter je hiter kot strela.
Peter AUX fast as lightning
'Peter is as fast as lightning.'
- c. *Peter je hiter kot strela voznik
Peter aux fast as lightning driver
Intended: 'Peter is a lightning fast driver.'
- (38) a. Njegovo predavanje je bilo naklonjeno Greti Thunberg.
his lecture AUX been favorable Greta.DAT Thunberg
'His lecture was favorable towards Greta Thunberg.'
- b. Njegovo predavanje je bilo Greti Thunberg naklonjeno
his lecture AUX been Greta.DAT Thunberg favorable
govorjenje.
speaking
'His lecture was a speech favorable towards Greta Thunberg.'
- c. *Njegovo predavanje je bilo naklonjeno Greti Thunberg
his speaking AUX been favorable Greta.DAT Thunberg
govorjenje.
speaking
Intended: 'His lecture was a speech favorable towards Greta Thunberg.'

When degrees and complements appear next to an adverb, they can follow it, (39-a) and (40-a). This is the order predicted by the proposal presented here.

- (39) a. Peter je vozil hitro kot strela.
Peter AUX drove fast as lightning
'Peter drove fast as lightning.'
- b. ??Peter je vozil kot strela hitro.
Peter AUX drove as lightning fast
'Peter drove fast as lightning.'
- (40) a. Govoril je naklonjeno Greti Thunberg.
spoke AUX favorably Greta.DAT Thunberg
'He spoke favorably towards Greta Thunberg.'
- b. ??Govoril je Greti Thunberg naklonjeno.
spoke AUX Greta.DAT Thunberg favorably
'He spoke favorably towards Greta Thunberg.'

²Additionally, there seem to exist movements that disobey the adjunct island constraint. If we assume that adverbials are adjuncts, as we would need to assume also for Slovenian if we were to blame the adjunct island constraint for the ungrammatical example (35-b), then preposition stranding, shown in (i), could be seen as an instance of a movement violating the adjunct island constraint.

(i) Which restaurant is Peter having lunch at?

Note that the relevant piece of data here is really only the fact that (39-a) and (40-a) are possible. If adverbs were simple adverbial phrases, one would expect them to behave parallel to attributive adjectives, but given that (39-a) is possible, it means that adverbs behave like predicative adjectives — which is what we are proposing that they really are. The fact that the reverse (attributive) order is also (marginally) possible, as shown in (39-b) and (40-b), can be explained by the possibility of an attributive adjective standing next to a null noun in a predicative position.³

3.3 INDECLINABLE ADJECTIVES

As the third piece of support consider the fact that Slovenian exhibits a small but non-negligible set of adjectives, often loan words in origin, which do not agree/decline, such as *poceni* ‘cheap’, *fajn* ‘good/nice’, *kul* ‘cool’, *fensi* ‘fancy’, etc., (41). Interestingly, these adjectives also do not have the special adverbial *-o* ending when used as adverbs, as shown in (42).

(41) *fajn hiša* – *fajn bicikel* – *fajn mesto*
 nice house.F.SG nice bike.M.SG nice town.N.SG

(42) *Micka fajn poje.*
 Micka well sings
 ‘Micka sings well.’

And even more revealingly, in some Slovenian dialects some of these adjectives do agree in gender and number with the noun, as is the case, for example, with the adjective *fajn* ‘nice’ in Eastern dialects. Interestingly, in these same dialects the adverbial use of this adjective also exhibits the *-o* ending, just as we would expect if adverbs are really adjectives. Example (43), which features a side-by-side occurrence of *fajn* as an agreeing adjective and as an *o*-marked adverb, is taken from an online forum (<https://slo-tech.com/forum/t107389>).

(43) [...] *smo se fajn-o ustalili oz. je flet fajn-i* [...]
 AUX REFL nice-ly settled or AUX apartment nice-MASC.SG
 ‘[...] we settled down nicely, or rather the apartment is nice.’

The fact that the existence of the adverbial *-o* ending on the deadjectival adverb is linked to the existence of adjectival agreement in the dialect suggests that the two endings are one and the same morpheme.

3.4 ATTRIBUTIVE-ONLY ADJECTIVES

Our last piece of support comes from the fact that, as Željko Bošković (p.c.) suggested to us, adjectives that do not have a predicative form also do not seem to exist as adverbs. The adjective *bivši* ‘former’, for example, exists only as an attributive adjective, as shown in (44) (cf. Marušič & Žaucer, 2009).⁴

³There do exist certain cases, such as (i) below, in which the attributive order actually seems preferred. To some extent, these appear to be set expressions. We have nothing further to add to this at this point.

(i) *Vozil je letom primerno.*
 drove AUX years.DAT adequately
 ‘He drove appropriately for his age.’

⁴Cases like (i) are not real counterexamples: *bivši* ‘former’ here clearly acts as a deadjectival nominal meaning ‘ex-husband’ or ‘ex-boyfriend’.

(i) *Peter je Mickin bivši.*
 Peter AUX Micka’s ex
 ‘Peter is Micka’s ex.’

- (44) a. Peter je bivši predstojnik našega oddelka.
Peter AUX former chair our.GEN department.GEN
'Peter is the former chair of our department.'
- b. *Peter je bivši.
Peter AUX former
Intended: 'Peter is former.'

If *-o*-adverbs are really predicative adjectives in a reduced relative clause-like structure, then the fact that attributive-only adjectives will not have *-o* manner adverb counterparts falls out naturally.⁵

4 EXTENSION

It seems fairly straightforward and it also makes sense to try and extend this proposal to other deadjectival adverbs. So for example, some of the temporal adverbs are also deadjectival, and carry the typical *-o* ending, e.g. *točno* 'on time' or *prepozno* 'too late'. As suggested in (45) these could also originate inside a reduced relative clause.

- (45) a. Micka je na večerjo prišla prepozn-o / točn-o.
Micka AUX to supper came too-late on-time
'Micka came to the lecture too late/on time.'
- b. Micka je na večerjo prišla [kar /tə je bilo prepozn-o / točn-o].
Micka AUX to supper came which that aux was too-late on-time
'Micka came to the lecture too late/on time.'

A reduced relative clause is also a possible source for non-deadjectival temporal adverbs, as shown in (46):

- (46) a. Žodor je lani prebral veliko knjig.
Žodor AUX last-year read many books
'Last year, Žodor read many books.'
- b. Žodor je prebral veliko knjig, [kar /tə je bilo lani].
Žodor AUX read many books which that aux was last-year
'Last year, Žodor read many books.'

The same holds for temporal and location PP adverbials, which can also easily appear inside an overt adverbial free-relative clause, as shown in (47). This suggests that they could also originate inside reduced relative clauses.

- (47) a. Jon bought a bike *on Friday in the supermarket*.
b. Jon bought a bike [~~which was~~ on Friday] [~~which was~~ in the supermarket].

Furthermore, adverbs that modify (participial) adjectives are also *-o*-adverbs, (48). Under

⁵As pointed out by a reviewer, there do exist some attributive-only adjectives that can appear as adverbs, one such case is the Bosnian/Croatian/Montenegrin/Serbian *navodno* 'allegedly' or the Slovenian *domnevno* 'presumably', *navidezno* 'apparently', *dozdevno* 'seemingly' etc. We acknowledge that this reduces the strength of this argument, but also think these adjectives have a possible (if rare) predicative use as shown in examples (i)–(ii) (both are constructed based on examples we found on *www*).

- (i) Predpostavka ostaja domnevna, dokler ni eksistencialno potrjena.
presuppositon.F.SG remains presumed.F.SG until NEG-AUX existentially proven
'The presupposition remains presumed until it is existentially proven.'
- (ii) Tudi za njih korist ostaja navidezna.
also for them benefit.F.SG remains apparent.F.SG
'Also for them the benefit remains apparent.'

the view that they modify the verb before it becomes an adjective (as seems to be the accepted view inside a more syntax-based morphology, e.g. Distributed Morphology or Nanosyntax), they are expected to behave like regular “adverbs”, so whatever holds of regular adverbs will obviously apply to these adverbs as well.

- (48) hitr-o zgrajena hiša
 quickly built house
 ‘a quickly built house’

4.1 ONLY AND ALONE

Despić & Wiegand (2023) discuss the Bosnian/Croatian/Montenegrin/Serbian non-agreeing focus operator *sam-o* ‘only’ and the agreeing exclusive operator *sam-x* ‘alone’, which has at least three distinct readings, and propose a common semantic entry for both elements, with agreement essentially signaling different semantic scope of this element.⁶ Slovenian also has the two elements discussed by Despić & Wiegand (2023), a non-agreeing focus operator *sam-o* ‘only’ and an agreeing exhaustive operator *sam-x* ‘alone’, with basically the same interpretational options. If we take the two elements to be basically the same element, as also argued by Despić & Wiegand (2023), then the non-agreeing *sam-o* seems to carry the adverbial *-o* ending while the agreeing *sam-x* agrees like a predicative adjective as shown in (49-b). And since *sam-x* can act as a predicative element in (49-a), a common syntactic analysis seems possible.

- (49) a. Peter je sam in Micka je sama.
 Peter aux.SG alone.M.SG and Micka aux.SG alone.F.SG
 ‘Peter is alone and Micka is alone.’
 b. Micka je Petra pustila samega.
 Micka aux.SG Peter.M.ACC left.SG.F alone.M.ACC
 ‘Micka left Peter alone.’

Despić & Wiegand (2023) suggest that to capture one of the possible interpretations of the agreeing *sam-x* a small clause could be used. We want to suggest that a small clause could also be seen as a common element for all cases. If this were the case, both the agreeing *sam-x* and the non-agreeing *sam-o* would essentially be secondary predicates agreeing with a PRO in the subject of the small clause, which would in turn either be controlled by the subject or act as an event variable, depending on the height of attachment (also proposed by Despić & Wiegand 2023).

5 ISSUES

In this section we list some facts that could be problematic for our proposal. We briefly discuss each of them, but leave solutions to the challenges they pose for future work.

Non-intersective adjectives are called ‘direct modifiers’ because they are not merged within a relative clause. A non-intersective interpretation is said to come from an adverbial use of the adjective — the adjective modifies the verbal part of the noun rather than the entity.

We are, however, arguing that (manner) adverbs are also reduced relative clauses. This means that non-intersective adjectives could really only be reduced relative clauses of a different type, rather than direct modifiers. That is, they should be reduced relative clauses whose subject is an event pronominal inside the DP.

Degree adverbs such as *čisto* ‘completely’, *rahlo* ‘slightly’, *občutno* ‘considerably’, *znatno* ‘significantly’, *veliko* ‘a lot’, etc., are all deadjectival and all carry the *-o* ending, yet a reduced relative-clause analysis is not that obvious in the cases where the degree adverb modifies an adjective (rather than a VP). An attempt at a possible analysis is given in

⁶Thanks to an anonymous reviewer for directing us to this reference.

(50-c). A similar problem is presented by degree-like adverbs modifying color adjectives (*temno rdeč* ‘dark red’; *svetlo zelen* ‘light green’ etc.).

- (50) a. rahl-o debel pes
slightly fat dog
‘a slightly fat dog’
b. #a fat, (which is slightly), dog
c. Fifi je [[[tɐ je rahlo] debel] pes].
Fifi AUX this aux slightly fat dog
‘Fifi is a dog that is fat and his fatness is slight.’

A different type of problem is observed when these adverbs are used as sentence level frequency adverbs, as in (51). Similarly to other frequency adverbs listed in (19) above, *veliko* ‘a lot’ in (51) modifies the frequency of occurrence of the event of the VP. The closest paraphrase with an overt subject of such an adverb is given in (51-b), although the subject in this case is the genitive demonstrative pronoun *tega*, for which it is not clear whether it is really the true subject, or it forms an underlying constituent with the adverb *veliko* ‘a lot’. We leave a discussion of these and similar examples for future work (as we have already noted, for the time being we are limiting ourselves to manner adverbs).

- (51) a. Peter veliko smuča.
Peter a-lot skis
‘Peter skis a lot.’
b. Peter [tega je veliko] smuča.
Peter this AUX a-lot skis
‘Peter skis a lot.’

When used as adverbs, **a few deadjectival adverbs are stressed differently** from when they are used as neuter-agreeing adjectives: e.g. *hudó* ‘heavily’ vs. *húdo* ‘heavy’ or *lepó* ‘nicely’ vs. *lépo* ‘nice’ and also the non-agreeing focus operator *samó* discussed in §4.1 above. Example (52-a) below demonstrates the use of this element as an adverb, with stress on the final vowel, and (52-b) demonstrates its use as an adjective, with stress on the first syllable. On our account, the discrepancy in the stress patterns of the neuter-agreeing adjective and the adverb seems surprising. Also, as shown in (52-c), the adverbially stressed versions are also used as predicates when the subject is the neuter-singular or phi-empty *to*, as well as as predicates inside adverbial relative clauses. In this case these elements are not adjectives with neuter singular agreement but simply adverbial elements in predicative position (cf. Patejuk & Przepiórkowski 2021). Whereas we suspect that there is a principled reason for the stress shift, the data itself does appear to weaken the central argument of this paper in a way, and we do not have an explanation for it at this point.

- (52) a. Ari je lepó skočil.
Ari AUX nice jumped
‘Ari jumped beautifully.’
b. Arijevo skakanje je bilo lépo.
Ari’s jumping AUX been nice
‘Ari’s jumping was nice.’
c. To je bilo lepó.
this AUX been nicely
‘This was nice.’
d. Ari je skočil, kar je bilo lepó.
Ari AUX jumped, which was nice
‘Ari jumped, which was beautiful.’

Comparative adverbs behave slightly differently from the comparative adjectives. Adver-

bial comparatives have two possible forms, one that is identical to the adjectival form and another one that is a shorter version of the adjectival form, as shown in (53). The shorter version of the adverbial comparative form consists of a subpart of the adjectival comparative morpheme. Following Caha et al. (2019) the comparative morpheme consists of two subparts, and while the adjectival comparative in (53-b) needs to consist of both parts, the adverbial comparative consists of only one subpart, (53-a). We do not have much more to say on this matter. Given the simple analysis that we have proposed, adverbs should be simply adjectives, but apparently the predicate position has some effect on the shape of these adjectives.

- (53) a. Žrebe teče hitrejše / hitreje od teleta.
 foal runs faster.ADJ.COMP faster.ADV.COMP than calf
 ‘The foal runs faster than the calf.’
 b. Žrebe je hitrejše / *hitreje od teleta.
 foal AUX faster than calf
 ‘The foal is faster than the calf.’

6 CONCLUSION

We argued that certain (Slovenian) adverbs — most clearly deadjectival manner adverbs — should be analyzed as indirect event modifiers. These elements enter the derivation as predicative adjectives in a reduced relative clause-like structure, in which they get N.SG agreement, basically because N.SG is the default agreement.

On this view, adverbs are elements parallel to depictive secondary predicates except that their subject is not a PRO controlled by one of the arguments but by an event pronominal. The neuter singular agreement that shows up on these elements in Slovenian and is traditionally recognized as adverbial derivational morphology is simply inflectional agreement in neuter singular (either with the neuter singular pronoun *to*, or because this is the default agreement when there is no nominative subject).

Whereas we also identified some opportunities for potentially extending this approach to other adverbs, we do want to be cautious and limit our proposal to deadjectival adverbs. Adverb seems to be a cover term for a very diverse group of elements with ample differences in their syntax and morphology, and we do not claim that our approach is the right way to analyze all adverbs. Certain higher, sentence-level adverbs (e.g. aspectual adverbs like ‘again’, ‘already’, etc.) could well be different, merged in the clausal structure directly, as “direct modifiers”.

While we only discuss Slovenian data, we do believe our proposal is more general. We are aware of the fact that even though some other Slavic languages also use neuter singular ending for adverbs (cf. Caha & Medová, 2009; Rozwadowska, 2011) not all of our arguments can be easily set up in these languages. Our proposal is presented in very general terms also for this reason. At this point we do not yet have a good overview of the facts from other languages, so we chose not to be too explicit about details that would need to be worked out keeping in mind cross-linguistic differences. Finally, we note that this proposal can also be considered as another case for the often attempted parallelism between the syntax of noun phrases and clauses.

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ABBREVIATIONS

AUX	auxiliary	NOM	nominative
DAT	dative	N	neuter
DEF	default	NEG	negative
DU	dual	PL	plural
F	feminine	REFL	reflexive
GEN	genitive	SG	singular
M	masculine		

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