The Word Order of Inner Participants in Czech, Considering the Systemic Ordering of Actor and Patient

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Abstract

The paper deals with the unmarked word order (systemic ordering) of inner participants (Actor and Patient) in the focus-part of Czech sentences. The analysis of the sequence of Actor and Patient reveals the criteria that may influence the arrangement of sentence participants as such.

1 The word order in Czech – systemic ordering

The present paper aims at an analysis of one of the basic properties of the sentence structure in Czech, namely the unmarked word order of sentence constituents focusing on inner participants (arguments) Actor and Patient.

Czech is a language with the so-called free word order. However, this does not mean that the word order is arbitrary; rather, it is not grammatically fixed to such an extent as the word order in English. Therefore, the word order in Czech has a great opportunity to copy the topic-focus articulation (functional sentence perspective / sentence information structure).

In the unmarked word order in Czech, the contextually bound sentence elements appear first (in the topic-part of the sentence) followed by the contextually non-bound elements in the focus-part. The last member in the sentence is usually the very "core" of communication (focus proper), i.e. the element carrying the most important information (the greatest degree of communicative dynamism) and also the lowest degree of identifiability from the context (whether linguistic or situational), cf. Petr Sgall, Eva Hajičová and Eva Buráňová (1980, p. 17). It is thus the context that is the strong factor affecting the word order in the Czech sentence (*Mluvnice češtiny 3*, 1987, p. 582).

The elements in the focus-part of the sentence are mostly contextually non-bound. However, their sequence is not arbitrary here. It seems that the order of sentence constituents in the focus is subject to certain principles and is probably influenced to some extent by grammatical factors.

The research on focus-part of the Czech sentences in terms of word order (i.e. research on the so-called systemic ordering) was carried out by Praguian generative linguists Petr Sgall, Eva Hajičová and Eva Buráňová (1980). They have formulated the hypothesis that there exists a canonical ordering of verb participants and circumstantials and the tentative ordering they proposed is as follows (1980, p. 77):

Actor ACT – time (when) TWHEN – since when TSIN – to when TTILL – how often THO – how long THL – location (where) LOC – manner MANN – criterion CRIT – instrument MEANS – direction (which way) DIR2 – addressee ADDR – origin ORIG – direction (from where) DIR1 – patient PAT – direction (to where) DIR3 – effect EFF – condition COND – aim (purpose) AIM – reason (cause) CAUS.

The scale was established on the basis of an empirical study of Czech texts complemented by psycholinguistic tests carried out with native speakers of Czech. The authors assume that it is the kind of sentence participants or circumstantials (rather than the choice by the author) that has the greatest influence on the placement of the sentence element in the scale (P. Sgall et al.1980, p. 69). At the same time they highlight the fact that the systemic ordering may interfere with other factors as well (not taken into account yet), such as clause or non-clause form of participants (1980, p. 76), so that not all realized sentences in real texts must copy the

established scale in their focus-part. This was confirmed in the research by Šárka Zikánová (2006).

2 Verifying the systemic ordering on data from the Prague Dependency Treebank

The aim of this paper is to verify a part of that scale. Our attention is focused on the order of inner participants (Actor and Patient) with regard to each other (Actor – Patient / Patient – Actor) and also against the other inner participants (Addressee, Origin, Effect) and against the so-called free verbal modifications (such as Cause, Condition, Aim, Locative, Manner etc.) – e.g. Actor – Locative / Locative – Actor.

The research was conducted on data from the Prague Dependency Treebank (PDT) which includes more than 38,000 sentences annotated on tectogrammatical (i.e. underlying syntactic) layer. The corpus consists of journalistic texts, so that the conclusions of the research mainly apply to sentences from the texts of journalistic style.

In the analysis, only positive declarative sentences were collected since we assume that the type of the sentence or the use of negation may influence the results. Moreover, only participants that have not the form of clauses were included into the research (in contrast to the original scale of system ordering that ignored a possible difference in the behaviour of participants expressed by clauses and non-clauses). At the same time, the sentence elements had to be contextually non-bound. To decide whether a participant is or is not contextually bound, the annotation of topic-focus articulation in PDT was used (for the annotation instructions for the assignment of the values of the attribute of topic-focus articulation in PDT see Marie Mikulová et al. 2005, pp. 142ff). The monitored participants also had to be explicitly present in the sentence (in the surface structure). Unexpressed constituents present only implicitly (in the underlying structure of sentences) were not taken into account.

It was then tested, for inner participants Actor and Patient pairwise, which order is more common – whether Actor – Patient or Patient – Actor. In addition, we examined the common sequence of each inner participant in combination with other inner participants (Addressee, Origin and Effect) and with a free verbal modification (e.g. Condition, Aim, Locative, Manner etc.). The analysis followed the position of Actor and Patient in pairs with all free verbal modifications which the corpus PDT distinguishes (there are almost 40 types of them, see M. Mikulová et al. 2005, pp. 114ff). The number of occurrences of pairs in the two sequences was recorded in a table.

It is natural that some types of sentence participants or circumstantials occurred more frequently in the corpus (e.g. Actor, Patient, Locative) and some others (especially those with more specific semantic characteristics) occur less often (e.g. Heritage, Obstacle). This fact is also reflected in the frequency of the occurrence of some participants in pairs – for some pairs, there were not found any sentences in the corpus where the participants would appear side by side (under the given conditions). The research results include only those pairs that appeared in PDT (under the given conditions) at least in 10 cases (the tables of systemic ordering are, therefore, different in size for Actor and for Patient).

3 Research results

The tables summarizing the results of research reflect the frequency of inner participants Actor and Patient in a particular position in relation to other sentence elements. The first column of each table indicates the type of the participant (its functor); for the abbreviations and characteristics of sentence elements used in PDT see <http://ufal.mff.cuni.cz/pdt2.0/doc/manuals/en/t-layer/html/ch07.html>.

In the second column, there is the number of co-occurrences of a given inner participant and another type of functor in the order "functor – inner participant" / "inner participant – functor". The third column contains the probability that the systemic ordering is in the PDT in the sequence "inner participant – functor". This probability was calculated from samples of different sizes – by small samples the probability has only an informative value and its importance should not be overestimated.

E.g. inner participant Actor (ACT) occurred in the corpus PDT (under the given conditions described above) with the free verbal modification expressing Manner (MANN) in 256 cases. In 213 occurrences ACT and MANN appeared pairwise in the order MANN – ACT. In the order ACT – MANN they occurred in 52 cases. The probability that this pair will appear in order ACT – MANN is 52/265, i.e. 0.20.

Research results are reflected in the following tables[1]:

Functor (*)	*–ACT / ACT–*	P (ACT–*)
RESTR	23 / 2	0.08
MANN	213 / 52	0.20
THL	34 / 12	0.26
EXT	105 / 41	0.28
THO	30 / 13	0.30
TWHEN	267 / 109	0.30
CRIT	32 / 14	0.30
TSIN	14 / 7	0.33
LOC	241 / 152	0.39
TTILL	8 / 6	0.43
PAT	615 / 486	0.44
DIR1	14 / 13	0.48
DIR2	5 / 5	0.50
TPAR	5 / 5	0.50
DIR3	36 / 38	0.51
ADDR	38 / 49	0.56
COND	9 / 12	0.57
MEANS	23 / 34	0.60
CAUS	12 / 19	0.61
EFF	15 / 24	0.62
ORIG	4 / 7	0.64
AIM	7 / 13	0.65
REG	6 / 11	0.65
BEN	11 / 23	0.68
ACMP	15 / 34	0.69
COMPL	12 / 27	0.69
DIFF	0 / 11	1.00

Table 1 Systemic ordering with regard to ACTOR

Functor (*)	*–PAT / PAT–*	P (PAT–*)
RESL	16 / 2	0.11
THL	120 / 22	0.15
EXT	282 / 53	0.16
MANN	643 / 125	0.16
RESTR	25 / 8	0.24
TWHEN	465 / 165	0.26
TSIN	34 / 14	0.29
CRIT	55 / 22	0.29
THO	68 / 30	0.31
ADDR	229 / 113	0.33
REG	60 / 35	0.37
LOC	383 / 276	0.42
BEN	77 / 55	0.42
TPAR	11 / 8	0.42
TTILL	29 / 22	0.43
ORIG	51 / 43	0.46
TFHL	10 / 9	0.47
COMPL	62 / 63	0.50
DIR1	45 / 49	0.52
MEANS	87 / 98	0.53
CAUS	42 / 49	0.54
SUBS	5 / 6	0.55
ACT	486 / 615	0.56
ACMP	48 / 73	0.60
DIR3	96 / 145	0.60
COND	19 / 41	0.68
DIFF	14 / 31	0.69
EFF	66 / 160	0.71
AIM	13 / 58	0.82

Table 2 Systemic ordering with regard to PATIENT

The tables reflect a certain degree of probability that a given contextually non-bound sentence element (inner participant or free modification) expressed by non-clause will follow a contextually non-bound inner participant (Actor and Patient) which is expressed also by non-clause form[2]. As noted

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[1] ACMP accompaniment; ACT actor; ADDR addressee; AIM purpose; BEN sth is happening for the benefit (or disadvantage) of sb/sth; CAUS cause; COMPL predicative complement; COND condition; CRIT criterion/measure/standard; DIFF difference (between two entities, states etc.); DIR1 direction: from where; DIR2 direction: which way; DIR3 direction: to where; EFF effect; EXT extent; LOC locative: where; MANN manner; MEANS means (of doing sth); ORIG origin; PAT patient; REG with regard to what sth is asserted; RESL result of sth; RESTR exception / restriction; SUBS sb/sth substitutes for sb/sth else; TFHL temporal: for how long; THL temporal: how long / after how long; THO temporal: how often / how many times; TPAR in parallel/simultaneously with what / during what time; TSIN temporal: since when; TTILL temporal: until when.

[2] The tables reflect only the probability of particular sentence elements to appear 1. after the Actor 2. after the Patient in the sentence. They do not show the word order of the verbal participants or

above, this probability of the word order "inner participant – other sentence element" concerns the positive declarative sentence from the journalistic text in Czech.

In some cases, it was possible to explore a relatively large sample of sentences (up to several hundred). Such a sample certainly reflects some features of primary word order of sentence components but the results can not be found absolute. The order of inner participants may be affected also by other criteria (for the time being, they are disregarded here, see below).

The results indicate that in some cases, we can actually observe a stronger or weaker tendency to a certain sequence of verbal participants or circumstantials in the focus-part of the sentence (e.g. MANN – ACT; TWHEN – PAT; PAT – EFF; ADDR – PAT). In other cases, it seems that a given pair of participants or circumstantials does not have any preferred word order (such as PAT / COMPL; PAT / DIR1, PAT / MEANS).

At the same time, all pairs report only a certain tendency (of varying degrees) to a canonical (systemic) ordering. However, for all pairs, it is also possible to find grammatical sentences in which their order will not correspond with the systemic ordering.

3.1 Order Actor / Patient

Due to the observed proportions of occurrences of pairs in the two possible sequences, a comparison can be made of systemic ordering of inner participants in the original scale. Interestingly, the original systemic ordering expected Actor in the first place followed by all other inner participants (even free modifications). However, the position PAT – ACT is slightly predominant in the data from the PDT. This finding is quite surprising because Czech is referred to as the language with the basic word order type SVO, which would correspond to the order ACT – PAT.

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circumstantials with regard to each other. E.g. the sequence in the table 1 RESTR, MANN, THL only says that these participants or circumstantials appear often before than Actor in the sentence. It does not say that the usual mutual word order of these circumstantials is in the sequence RESTR, MANN and THL.

However, we should look at other possible word order factors (not taken into account yet) that may influence the word order position of Actor[3] and Patient[4] in the sentence.

3.1.1 Actor and Patient in the constructions with the verb *to be*

3.1.1.1 PAT.adjective – ACT.infinitive

The order PAT–ACT often occurs in structures with the copula verb *to be*, where the PAT frequently has the form an adjective and the ACT is in the form of verbal infinitive (like in English structures *it is necessary to expect, it is fair to assume, is good to compare, it is possible to deliver...*) – see (1) and (2). (It should be noted that with all of the examples below, the English translations are often only literal, presented here just to illustrate the intended meaning of the Czech sentence. At the same time we do not use just glosses and try to formulate grammatical sentences in English so that the order of the given participants or circumstantials in English translations do not correspond to their order in Czech; however, we believe that the reader can easily identify such cases by comparing the values of the respective functors.)

(1)   *Je nutné.*PAT$_{focus}$ *přiznat.*ACT$_{focus}$, *že nebýt regulace cen tepla, mnozí jeho výrobci by už jistě neexistovali.*

*It is necessary.*PAT$_{focus}$ *to admit.*ACT$_{focus}$ *that without the regulation of heat prices, many of its producers probably would not already exist.*

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[3] "ACT (Actor) is a functor used primarily for the first argument. In those cases when there is no argument shifting, the modification with the ACT functor refers to the human or non-human originator of the event, the bearer of the event or a quality/property, the experiencer or possessor." (M. Mikulová et al., 2008)

[4] "The PAT functor (Patient) is a functor used primarily for the second argument. In those cases when there is no argument shifting, the modification with the PAT functor refers to the affected object (in the broad sense of the word). [...] [However,] the Patient is defined primarily syntactically. [...] The PAT functor is also assigned to nodes representing the nominal part of a verbonominal predicate (e.g. *být hodný*.PAT (= to be good))." (M. Mikulová et al., 2008)

(2)   *Improvizace je dobrá věc, ale je* **potřebné.PAT**_{focus} *se zamyslet.***ACT**_{focus} *nad možnými eventualitami a důsledky.*

The improvisation is a good thing, but it is **needed.PAT**_{focus} *to consider.***ACT**_{focus} *the possible eventualities and consequences.*

In the PDT, 202 of these structures occur in the order: PAT.adjective – ACT.infinitive. It is interesting to notice that this pair does not occur there in the reverse order (ACT.infinitive – PAT.adjective), or, better to say, it is present (25 occurrences), but the ACT is always contextually bound in such structures (these constructions – see example 3 – are not included in the research). However, this does not mean that the sequence ACT.infinitive – PAT.adjective cannot appear in Czech with both the ACT and the PAT being contextually non-bound.

(3)   (*Že úrokové sazby jsou vysoké, je zřejmé.*) *Proto* **splatit.ACT**_{non-focus} *úvěr za čtyři roky je pro většinu nových vlastníků* **nemožné.PAT**_{focus}.

(*That the interest rates are high, it is obvious.*) *Therefore it is* **impossible.PAT**_{focus} *to pay back.***ACT**_{non-focus} *the credit for most new owners in four years.*

3.1.1.2 PAT.noun – ACT.noun /

ACT.noun – PAT.noun

In PDT, there is a total of 560 occurrences of the PAT and the ACT in the constructions with the verb *to be*. The vast majority of them is in order PAT – ACT (391 hits) and 169 occurrences in order ACT – PAT. If we leave the last-mentioned structures (PAT.adjective – ACT.infinitive), there are 189 matches in the order PAT – ACT (examples 4 and 5) and 169 occurrences in the order ACT – PAT (examples 6 and 7) so that their proportion is nearly balanced.

(4)   *Pro   mne   je   absolutním* **spisovatelem.PAT**_{focus} *Shakespeare.***ACT**_{focus}.

For me, the absolute **writer.PAT**_{focus}. *is* **Shakespeare.ACT**_{focus}

(5)   *80procentním   podílem   je nejfrekventovanějším* **padělkem.PAT**_{focus} *stomarková* **bankovka.ACT**_{focus}.

With 80percent share, a one-hundred-mark **bill.ACT**_{focus} *is the busiest* **fake.PAT**_{focus}.

(6)   *V blížících se komunálních volbách je* **starost.ACT**_{focus} *o štěstí budoucích generací líbivým politickým* **gestem.PAT**_{focus}.

In the upcoming municipal elections, the **concern.ACT**_{focus} *for the happiness of future generations is a catchy political* **gesture.PAT**_{focus}.

(7)   *Na rozdíl od jiných armád byla* **služba.ACT**_{focus} *v bojových jednotkách ozbrojených sil pro Američanky dlouho* **tabu.PAT**_{focus}.

Unlike   other   armies,   the **service.ACT**_{focus} *in combat units of the armed forces was* **taboo.PAT**_{focus} *for American women for a long time.*

It seems that in these cases (examples 4 through 7), it is mainly the speaker's communicative intention that decides the order of the ACT and the PAT. He or she puts the more important information more to the right in word order as it is typical for Czech. And since the order of the ACT and the PAT is probably not grammatically fixed in Czech in these cases (as demonstrated above), the speaker has a choice of two (probably grammatically equivalent) options. However, these options are not equivalent in terms of communication.

In the sentence 4 the speaker (or writer) expresses who is his or her absolute writer (he or she chooses one possibility out of the "menu" of writers – e.g. *Beckett, Goethe, Schiller, Shakespeare...*). While in the sentence 8 with a reversed word order, the speaker would testifies the fact who is Shakespeare for him or her – if the intonation centre would be at the end of the sentence (he or she would choose from the "menu" of Shakespeare's characteristics – such as *a good man, an interesting person, an average actor...*) – cf. Sgall et al. (1980, p. 82ff). However, in example 8, *Shakespeare* must be probably context bound.

(8)   *Pro mne je* **Shakespeare.ACT**_{non-focus} *absolutním* **spisovatelem.PAT**_{focus}.

For me, **Shakespeare.ACT**_{non-focus} *is the absolute* **writer.PAT**_{focus}.

It seems that in some cases, the position ACT$_{focus}$ / PAT$_{focus}$ has only one possible sequence in word order – as in example 4. In this example, the only unmarked position is probably PAT$_{focus}$ – ACT$_{focus}$. Another position would be marked – as in example 8: ACT$_{non-focus}$ – PAT$_{focus}$. Therefore, the position ACT$_{focus}$ / PAT$_{focus}$ depends probably on the concrete lexical expressions of ACT and PAT. This issue must be further examined in details in another research.

3.1.2 Actor and Patient depending on a verb other than the copula *to be*

It is interesting to examine also the constructions with the ACT and the PAT that depend on a verb other than the copula *to be*. Here the order ACT – PAT is more common, attesting the original scale of systemic ordering (317 occurrences of the order ACT – PAT; 224 occurrences of PAT – ACT).

Among them, it is possible to find two types of more frequently occurring structures. The first is the ACT expressed by a noun and the PAT expressed by a verb. The other type is the structure in which the ACT and the PAT are expressed by nouns.

3.1.2.1 PAT.verb – ACT.noun /

ACT.noun – PAT.verb

There are 51 constructions in the order PAT.verb – ACT.noun in the PDT (examples 10 and 11) and 20 constructions in the order ACT.noun – PAT.verb (examples 12 and 13). It seems that the position PAT.verb – ACT.noun is more typical.

(10)　*Poměrně velká část poptávky odpadla, když k nám ze zahraničí začali* **jezdit.PAT$_{focus}$** *chudší* **turisté.ACT$_{focus}$**.

The relatively large proportion of demand fell down when poorer **tourists.ACT$_{focus}$** *began* **to come.PAT$_{focus}$** *to us from abroad.*

(11)　*V cestovním ruchu se rozhodla* **podnikat.PAT$_{focus}$** *i* **řada.ACT$_{focus}$** *živnostníků.*

An **array.ACT$_{focus}$** *of traders decided* **to do business PAT$_{focus}$** *in the tourism.*

(12)　*Stále více začínají* **podnikatelé.ACT$_{focus}$** **oceňovat.PAT$_{focus}$,** *když v počítači získají také svého daňového a právního poradce.*

Businessmen.ACT$_{focus}$ *begin* **to appreciate.PAT$_{focus}$** *more and more when they receive also their tax and legal advisors in computer.*

(13)　*Pro nadcházející období navrhuje* **ministr.ACT$_{focus}$** *financí* **přitvrdit.PAT$_{focus}$** *výdajovou politiku vlády.*

For the coming period, the **Chancellor.ACT$_{focus}$** *of the Exchequer proposes* **to tighten up.PAT$_{focus}$** *the expenditure government policy.*

In our opinion, the order of the ACT and the PAT is influenced, also here by the communicative point of view – the sentence element carrying the more important information (in the opinion of the speaker or writer) is more to the right. Here we can also observe a related tendency to such order in that the member with a more specific meaning (more meaningful new information) is more to the right (cf. *Mluvnice češtiny 3*, 1987, pp. 608ff).

In examples 12 and 13, the lexical meaning of the PAT is supplemented by the lexical meaning of other sentence elements depending on PAT (and at the same time, all these meanings give an additional piece of information). The semantic importance of the infinitive is thus significantly complemented: e.g. *to appreciate what, to tighten up what* – the elements depending on PAT are in the focus-part of the sentence.

By contrast, in examples 10 and 11, the PAT is informatively poorer. It rather has dependent elements, but they carry "old", identifiable (i.e. contextually bound) information – the elements depending on PAT are in the topic-part of the sentence. The only "new" information here (except the predicate and the PAT) is carried by the ACT. And the ACT has also the most meaningful information of all the contextually non-bound members.

Probably because of the low "semantic weight" of the end element, the sentence 14 would be unnatural if the ACT and the PAT

were context non-bound. This sentence could be used probably only if all other elements except the last one were contextually bound.

(14) *Poměrně velká část poptávky odpadla, když k nám ze zahraničí začali chudší* **turisté.ACT**_{non-focus} ***jezdit*.PAT**_{focus}.

 The relatively large proportion of demand fell when poorer **tourists.ACT**_{non-focus} *began* ***to come*.PAT**_{focus} *to us from abroad.*

 The infinitive itself carries likely too "little meaning" (little information) in this case to be able to occur in the most communicatively important place of the sentence (if the ACT were context non-bound). However, if we complement it by other ("new") semantic features, it could be at the end place without any problems (if we understand its "new" dependent complements as a whole with it) – see example 15.

(15) *Poměrně velká část poptávky odpadla, když k nám ze zahraničí začali chudší* **turisté.ACT**_{focus} *jezdit***.PAT**_{focus} *za památkami UNESCO.*

 The relatively large proportion of demand fell when poorer **tourists.ACT**_{focus} *began* ***to come*.PAT**_{focus} *to us from abroad because of the UNESCO sights.*

 In most cases, found in the PDT with the order ACT.noun – PAT.verb, the PAT has still another (contextually non-bound) dependent sentence members. In contrast, in the structures PAT.verb – ACT.noun, the PAT has (if any) mostly contextually non-bound dependent members (i.e. known and therefore less informatively important) – see example 16 – or the PAT has also contextually non-bound dependent elements, but in the role of the ACT there is often a semantically richer (and usually a more specified) participant (examples 17 and 18).

(16) *Milionový* **poplatek.PAT**_{non-focus} *za vydání osvědčení, které umožňuje vést lékárnu,* **zakázalo.PRED**_{focus} **vybírat.PAT**_{focus} **Ministerstvo.ACT**_{focus} *pro hospodářskou soutěž.*

 The **Ministry.ACT**_{focus} *for Economic Competition* **banned.PRED**_{focus} *to* **collect.PAT**_{focus} *the million* **fee.PAT**_{non-focus} *for*

issuing of a certificate which allows having a pharmacy.

(17) *Loupežným* **přepadením.MEANS**_{non-focus}, *při němž jim byly odcizeny pasy, se* **v srpnu.TWHEN**_{non-focus} **snažili.PRED**_{focus} **hlídce.ADDR**_{non-focus} *oddělení pohraniční policie* **vysvětlit.PAT**_{focus} *ilegální* **vstup.PAT**_{focus} *do ČR dva* **Turci.ACT**_{focus} *(33, 31 let), kteří žijí a pracují v Německu.*

 Two **Turks.ACT**_{focus} *(33, 31 years) who live and work in Germany* **tried.PRED**_{focus} *to* **explain.PAT**_{focus} *the illegal* **entry.PAT**_{focus} *to the CR [Czech Republic]* ***to the patrol*.ADDR**_{non-focus} *of border police department* ***by robbery*.MEANS**_{non-focus} *in which their passports were stolen* **in August.TWHEN**_{non-focus}.

(18) **Po souboji.TWHEN**_{non-focus} *s Jelínkem* **zůstal.PRED**_{focus} *za švédskou* **brankou.LOC**_{non-focus} **bezvládně.MANN**_{focus} **ležet.PAT**_{focus} *27letý Mikael* **Lindman.ACT**_{focus}.

 After the **battle.TWHEN**_{non-focus} *with Jelinek, 27-year-old Mikael* **Lindman.ACT**_{focus} **remained.PRED**_{focus} **lying.PAT**_{focus} **limply.MANN**_{focus} *behind the Swedish* **goal.LOC**_{non-focus}.

 It is grammatically possible to put the ACT on the communicatively most important place despite the fact that the PAT and its dependent members carry many pieces of "new" (contextually non-bound) information (example 19), but these cases are quite rare in PDT. Such constructions sometimes probably better serve for the communicative plan of the speaker (however, we have to notice that here also the ACT is not informatively poor – it also carries a large amount of meaning).

(19) *Američan vytvořil světový rekord 47.02 v roce 1983 a jeho čas se podařilo* **překonat.PAT**_{focus} *až o devět let* **později.TWHEN**_{focus} *ve* **finále.LOC**_{focus} *závodu olympijských her v Barceloně jeho krajanovi Kevinu* **Youngovi.ACT**_{focus} *(46.78).*

 An American set a world record of 47.02 in 1983 and his compatriot Kevin **Young.ACT**_{focus} *(46.78) managed to* **overcame.PAT**_{focus} *his time nine years*

later.TWHEN_focus in the final.LOC_focus *of race in the Olympic Games in Barcelona.*

On the other hand, if the PAT is semantically richer, it would take place after the ACT (example 20).

(20) *Během ní jí před hotelem stačili* **zloději.ACT_focus ukrást.PAT_focus** *auto.*

During it, the **thieves.ACT_focus** *managed* **to steal.PAT_focus** *a car to in front of the hotel.*

The reverse word order (example 21) of ACT and PAT would be unnatural, because the verb *to steal* includes in its semantics that the ACT are *thieves*.

(21) *? Během ní jí před hotelem stačili* **ukrást.PAT_focus** *auto* **zloději.ACT_focus**.

During it, the **thieves.ACT_focus** *managed* **to steal.PAT_focus** *a car to in front of the hotel.*

However, if we add some "new" (unretrievable) information about the thieves, the word order PAT – ACT is possible (22) as well as the order ACT – PAT (in such case, probably the choice of the speaker, or, as the case may be, his/her communicative plan, would decide which word order will be used).

(22) *Během ní jí před hotelem stačili* **ukrást.PAT_focus** *auto* **zloději.ACT_focus** *v zelených bundách.*

During it, the **thieves.ACT_focus** *in green jackets managed* **to steal.PAT_focus** *a car to in front of the hotel.*

There are also some formal criteria that affect the word order. Š. Zikánová (2006, p. 43) mentions the well-known tendency of so-called heavy (i.e. long) members to occur rather at the end of the sentence (example 23). However, it is questionable whether the heavy members tend to be at the sentence end because of their form or because of the fact that "more words put together more information" and therefore they have better chance to be placed in the communicatively most important position.

(23) *Právě kvůli němu se rozhodli* **hráči.ACT_focus vstoupit.PAT_focus** *do stávky, v*

jejímž důsledku pak nenastoupili ke třem zápasům na turnaji Seliko Cup' 94 v Přerově a v Olomouci.

Precisely due to him, the **players.ACT_focus** *decided* **to join.PAT_focus** *the strike; in consequence of this they did not attend three matches at the tournament Seliko Cup '94 in Přerov and in Olomouc.*

It seems that in Czech the tendency to occupy a final position is mainly observed by members on which another clause depends, but again, it is not a rule (example 24).

(24) *Velkou akci začali tři sokolovští* **„podnikatelé".ACT_focus**, *z nichž jednoho už v té době stíhala plzeňská policie pro podvod,* **plánovat.PAT_focus** *v prosinci minulého roku.*

Three **"bussinesmen".ACT_focus** *from Sokolov – one of them had been hunted for fraud by police in Pilsen at that time – started* **planning.PAT_focus** *the big event in December last year.*

Obviously the preference of the end-position in these cases depends also on the fact how long the member is. If the heavy member is not at the end, it should not be "too long". The listener or reader would have to keep in memory the valency frame of the predicate for a long time and it would make the understanding difficult. If the heavy member is at the end, the listener or reader knows (at least syntactically) all other members of the valency frame before he/she begins to perceive the longest (and most complicated) one.

A similar feature of word order (to put the heavy member to the end) can be found also in German. In German (in contrast with Czech) there is a strong grammatical tendency to put the infinitive at the very end position. However, e.g. if a member of the sentence is further modified by a dependent relative clause, this clause can follow the infinitive (example 25).

(25) *Ich wollte auch Drumsticks haben, die nicht so schnell kaputt gingen.*

I wanted to have also drum sticks that were not easily broken.

The syntactic structures in which the semantically obligatory member is separated

from the verb on which it depends by too many other members may be a source of language comics (example 26 – from Czech comic drama *Posel z Liptákova*).

(26) *Při průjezdu Mladou Boleslaví* **dostal.PRED** *můj spolujezdec kolega Hraběta právě v místech, kde byl na prahu románského kostelíka zavražděn svým bratrem Boleslavem roku 929 nebo 935, o tom jsou doposud spory, kníže Václav* **žízeň.PAT**.

While driving through Mladá Boleslav, my fellow passenger colleague Hraběta **became.PRED** **thirsty.PAT** *right in places where the Prince Wenceslas was murdered on the verge of a Romanesque church by his brother Boleslav in 929 or 935, there are still disputes.*

3.1.2.1 ACT.noun – PAT.noun /

PAT.noun – ACT.noun

If both members (ACT and PAT) are expressed by a noun, the word order ACT.noun – PAT.noun is more common (examples 27 and 28): in PDT there were 251 occurrences of such structures (the probability of this sequence in PDT is 0.66). It corresponds with the original scale of systemic ordering.

(27) *V prodejně Arxonu najdou* **zákazníci.ACT**_{focus}, *mnozí již stálí, také různé* **příručky.PAT**_{focus} *pro podnikatele a ekonomy.*

The **customers.ACT**_{focus}, *many already regular, find also the various* **guides.PAT**_{focus} *for entrepreneurs and economists in the shop Arxon.*

(28) *Společně se třemi zahraničními deníky vydávají Lidové* **noviny.ACT**_{focus} *Středoevropské* **noviny.PAT**_{focus}.

Together with three foreign dailies, the People's **Newspaper.ACT**_{focus} *publishes the Central European* **Newspaper.PAT**_{focus}.

The order PAT.noun – ACT.noun has 131 occurrences in PDT (examples 29, 30).

(29) *Na dvojnásobné trati žen vynikajícím závěrečným finišem přesprintovala favorizovanou Jihoafričanku Elanu* **Meyerovou.PAT**_{focus} *časem 31.56,97 Yvonne* **Murrayová.ACT**_{focus} *ze Skotska.*

On the women's double track, Yvonne **Murray.ACT**_{focus} *of Scotland overtook favored South African Elana* **Meyer.PAT**_{focus} *by excellent finish with the time 31.56,97.*

(30) *Ke konci minulého školního roku rozvázalo pracovní* **poměr.PAT**_{focus} *na 250* **pedagogů.ACT**_{focus}.

At the end of the last school year, 250 **teachers.ACT**_{focus} *terminated their* **employment.PAT**_{focus}.

Which word order will be chosen by the speaker, is probably determined also by already mentioned reasons – the communicative plan of the speaker, the "fullness of 'new' meaning" of both participants and their length. However, there are certainly other reasons also at play – such as idioms (cf. Zikánová, 2006, p. 43) as demonstrated in example 31 (the *rozvázat pracovní poměr* 'terminate employment' is a fixed legal multiword expression in Czech) or the grammatical form of the participants (example 29 with the homonymous form *noviny*_{nominative pl.} – *noviny*_{accusative pl.}). They will be observed in further research.

4 Conclusion

The aim of the paper was to put under scrutiny the scale of the original systemic ordering for inner participants Actor and Patient. Our analysis of their sequence if they are the contextually non-bound (i.e. in the focus-part of the sentence) demonstrates that it is quite problematic to establish a single scale. Further research will therefore concentrate on looking for criteria and reasons that may influence a canonical Czech word order.

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References

Daneš, František; Hlavsa, Zdeněk; Grepl, Miroslav et al. 1987. *Mluvnice češtiny (3). Skladba.* Academia, Prague.

Mikulová, Marie et al. 2008. *Annotation on the tectogrammatical level in the Prague dependency treebank: annotation manual.* Universitas Carolina Pragensis, Prague. ISBN 978-80-254-3088-0. WWW: <http://ufal.mff.cuni.cz/pdt2.0/doc/manuals/en/t-layer/html/ch07.html>.

Mikulová, Marie et al. 2005. *Anotace na tektogramatické rovině Pražského závislostního korpusu: anotátorská příručka.* Universitas Carolina Pragensis, Prague. ISBN 80-254-3087-1. WWW: <http://ufal.mff.cuni.cz/pdt2.0/doc/manuals/cz/t-layer/html/>.

Sgall, Petr; Hajičová, Eva; Buráňová, Eva. 1980. *Aktuální členění věty v češtině.* Academia, Prague.

Zikánová, Šárka. 2006. What do the data in Prague Dependency Treebank say about systemic ordering in Czech? *The Prague Bulletin of Mathematical Linguistics* 86, pp. 39–46. ISSN 0032-6585.

Cimrman, Jára da; Smoljak, Ladislav; Svěrák, Zdeněk. 2002. *Posel z Liptákova.* Paseka, Prague. ISBN 80-7185-479-4.

Prague Dependency Treebank. Vesion 2.0. Charles University in Prague, Faculty of Mathematics and Physics, Institute of Formal and Applied Linguistics. WWW: <http://ufal.mff.cuni.cz/pdt2.0/>. [29. 4. 2011]