

# Predicative Constructions with Infinitival and Clausal Subjects in Polish

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## Abstract

This paper offers a formal syntactic analysis of predicative constructions in Polish (with and without a copula), where the item predicated of is a clause: a complementiser phrase or an infinitival phrase. The predicative item may be a noun, an adjective or, a possibility previously denied, an adverb.

## 1 Introduction

This paper offers a formal syntactic analysis of predicative copular constructions in Polish, where the item predicated of (the subject of predication) is a clause – a complementiser phrase (CP, see (1)) or an infinitival phrase (InfP, as in (2)). This paper takes into account uncontroversial predicative items such as nominals (§2.1) and adjectives (§2.2; see (1)–(2)),<sup>1</sup> but also adverbs (§2.3), which is a novel contribution, challenging the widely accepted assumption that adverbs cannot be predicative.

- (1) [Ze musi ich być na to stać] wydaje się być  
that must.3.SG them.ACC be.INF on this afford.INF seem.3.SG RM be.INF  
oczywiste.  
obvious.NOM.SG.N  
'It seems to be obvious that they must be able to afford it.' (NKJP)
- (2) Ciekawe jest [odpowiadać na znane sobie pytania]?  
interesting.NOM.SG.N is.3.SG answer.INF on known self.DAT questions  
'Is answering questions known to oneself interesting?' (NKJP)

There have been discussions of non-canonical subjects (such as clauses in Polish, Dziwirek 1990; see (3)–(4) with a CP, from Patejuk 2015) and of predicative complements (including non-canonical cases, where the predicative item is a CP, a gerund or an infinitival clause, see (5)–(7) from Dalrymple et al. 2004).

- (3) Naszych gości dziwiło, [że mamy tak dużo obowiązków].  
our guests.ACC puzzled.3.SG.N that have.1.PL so many.ACC duties.GEN  
'(The fact) that we have so many duties puzzled our guests.' (NKJP)
- (4) Cieszyło ją, [że mam tak oryginalne zainteresowania].  
made.happy.3.SG.N she.ACC that have.1.SG so original interests.ACC  
'(The fact) that I have so original interests made her happy.' (NKJP)
- (5) The problem is that they appear. (Dalrymple et al. 2004: ex. (1d))

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<sup>1</sup>'NKJP' and 'Google' mark attested examples taken from the National Corpus of Polish (NKJP, <http://nkjp.pl>, Przepiórkowski et al. 2012) and the Internet.

(6) The problem is their appearing. (Dalrymple et al. 2004: ex. (1e))

(7) The problem is to leave before 6:00. (Dalrymple et al. 2004: ex. (1f))

However, these issues have only been discussed separately so far – to the best of our knowledge, no previous LFG work focuses on predicative complements whose subject (or controller – the item it predicates of) is a CP or an infinitival clause.

This is the case despite the fact that Polish copular constructions have been investigated earlier (e.g. Citko 2004, Bondaruk 2013): while Citko 2004 does not mention such examples at all, Bondaruk 2013 does present data in (8), but does not include such examples in her analysis of Polish copular clauses.

(8) [Uratować się] było nieprawdopodobieństwem.  
save.INF REFL was.3.SG.N improbability.INST.SG.N  
'To be saved was improbable.' (Bondaruk 2013: ex. (8) after Kallas 1993)

Interestingly, examples in (9)–(10), which perfectly match the topic of this paper, were used by Dziwirek 1990 to show Polish default subject-verb agreement triggered by the clausal non-canonical subject (infinitive and CP, respectively). However, Dziwirek 1990 did not discuss predicative complements in these examples, focusing instead exclusively on default agreement between the subject and the verb.

(9) [Mówić prawdę] było twoim obowiązkiem.  
speak.INF truth.ACC was.3.SG.N your.INST.SG.M duty.INST.SG.M  
'To speak the truth was your duty.' (Dziwirek 1990: ex. (17a))

(10) [Że Janek kochał Ewę] było dla wszystkich oczywiste.  
that Janek loved Ewa.ACC was.3.SG.N for all obvious.NOM.SG.N  
'That Janek loved Ewa was obvious to everyone.' (Dziwirek 1990: ex. (17b))

The current paper discusses default agreement on the predicative adjective (singular number, neuter gender in (10)) triggered by the non-canonical subject such as an infinitive or a complementiser clause, which has not been noticed earlier. So far default agreement in Polish has only been discussed in the context of subject-verb agreement (Dziwirek 1990), where it is also triggered by non-canonical subjects.

Another novel claim made in this paper is that there exist predicative adverbs in Polish examples such as (11), where the subject is non-canonical (clausal), though neither Bondaruk 2013 nor Kallas 1993 analyse this example in this way:

(11) [Uratować się] było trudno.  
save.INF REFL was.3.SG.N difficult.ADV  
'To be saved was difficult.' (Bondaruk 2013: ex. (7) after Kallas 1993)

This proposal contradicts claims that adverbs cannot be predicative, e.g. Rothstein 2001: 129 on English: "I assume that the absence of a predication relation is because adverbs are just not syntactic predicates. They never appear in a position in which they can be predicated of events, since even if the argument denotes an event, it cannot have an adverb predicated of it. The examples in [(12)] are all unacceptable with adverbial predicates, though the corresponding adjectives are all OK."

- (12) a. The destruction of the city was \*brutally/brutal.  
 b. The reading of the verdict was \*slowly/slow.  
 c. John considered [the running \*slowly/slow].

While this claim might be true for English, it will be shown that this is not the case in Polish, where an unambiguously adverbial<sup>2</sup> predicative complement may be used when the subject is clausal: an infinitive or a CP.

Finally, this paper discusses the issue of control into infinitival subjects by the optional dative dependent of a predicative adverb, as shown in (13):

- (13) [Uratować się] było nam trudno.  
 save.INF REFL was.3.SG.N us.DAT difficult.ADV  
 ‘To be saved was difficult for us.’ (Bondaruk 2013: ex. (10))

Bondaruk and Szymanek 2007 discuss examples analogous to (13) – they consider (14), asking the question whether the infinitival phrase *przegrywać mecze* ‘lose matches’ is the “extraposed subject clause” or “a complement clause”. They decide that the subject hypothesis is “implausible in the light of the fact that extraction out of non-finite clauses like [(14)] is possible” – it breaches the Constraint of Extraction Domains proposed by Huang 1982, which bans extraction out of subjects. Bondaruk and Szymanek 2007 provide (15) as supporting evidence, where *Co* ‘what’ is extracted from the infinitival phrase headed by *przegrywać* ‘lose’:

- (14) Jest mu smutno [przegrywać mecze].  
 is.3.SG he.DAT sad.ADV lose.INF matches.ACC  
 ‘It is sad for him to lose matches.’ (Bondaruk and Szymanek 2007: ex. (24))

- (15) Co jest mu smutno przegrywać?  
 what.ACC is.3.SG he.DAT sad.ADV lose.INF  
 ‘What is it sad for him to lose?’ (Bondaruk and Szymanek 2007: ex. (25))

However, it can be shown that it is not true that extraction from Polish subjects is banned, making the argument against the subjecthood of the infinitive in (14) void:

- (16) Czyje przyszedł dzisiaj zakupy?  
 whose.NOM.PL.M arrived.3.PL.M today shopping.NOM.PL.M  
 ‘Whose shopping order arrived today?’

Moreover, it is increasingly clear that apparently syntactic island constraints are largely a matter of cognition and processing (see, e.g., Hofmeister and Sag 2010 and further work by Hofmeister and colleagues).

## 2 Data and analysis

Before proceeding to the discussion of data, it is worth noting that constructions discussed in this paper – predicative complements whose subject is clausal (CP, infinitival phrase) – are very frequent, commonly seen in various genres, including carefully edited texts, which shows that this phenomenon is systematic in Polish.

<sup>2</sup>In Polish adverbs are morphologically distinct from adjectives, their distribution is also different.

In many examples below the predicative complement is placed sentence initially. However, the word order in Polish is free – the tendency for placing the clausal subject sentence-finally is attributable to its relative constituent weight: it is heavy. If the predicative complement is made sufficiently heavy, or the subject sufficiently light, it becomes possible and natural to switch the word order, putting the clausal subject first and the predicative complement last.

## 2.1 Predicative nominals

Let us start with the discussion of predicative nominals, which are perhaps the least controversial. In Polish, the predicative nominal is typically marked for instrumental case and it neither has to agree with its subject in number nor in gender, as shown in (17), where the subject *rolnicy* ‘farmers’ is plural masculine, while the predicative complement *ofiarą* ‘victim’ is singular feminine.

- (17) Rolnicy są ofiarą systemu.  
 farmer.NOM.PL.M are.3.PL victim.INST.SG.F system.GEN.SG.M  
 ‘Farmers are the victim of the system.’ (Google)

There are numerous examples with an instrumental predicative NP whose subject is non-canonical. Let us start with examples with a CP subject:

- (18) Moją pierwszą myślą było, [że nie  
 my.INST.SG.F first.INST.SG.F thought.INST.SG.F was.3.SG.N that NEG  
 powinienem tego podpisać].  
 should.1.SG.M this.GEN sign.INF  
 ‘My first thought was that I should not sign this.’ (NKJP)
- (19) Ciekawostką jest, [że w akumulatorach [...] jako paliwo  
 interesting fact.INST.SG.F is.3.SG that in accumulators as fuel  
 używany będzie alkohol].  
 used will.3.SG alcohol.NOM  
 ‘An interesting fact is that alcohol will be used as fuel in accumulators.’ (NKJP)

There are also multiple examples where the subject of the instrumental predicative NP is an infinitival phrase (earlier examples include (8) and (9)):

- (20) Grzechem jest [oglądać ten film].  
 sin.INST.SG.F is.3.SG watch.INF this.ACC film.ACC  
 ‘To watch this film is a sin.’ (NKJP)
- (21) Najwyższą karą było - [zostać  
 highest.INST.SG.F punishment.INST.SG.F was.3.SG.N - become.INF  
 usuniętym ze strajku].  
 removed.INST.SG.M from strike  
 ‘The worst punishment was to be removed from the strike.’ (NKJP)

Though it is not a decisive argument, non-canonical subjects can in principle be substituted for a gerund, which can uncontroversially act as the subject – compare the following two examples to (19)–(20) above:

- (22) Ciekawostką jest [używanie w akumulatorach  
interesting fact.INST.SG.F is.3.SG using.NOM.SG.N in accumulators  
alkoholu jako paliwo].  
alcohol.GEN as fuel  
'Using alcohol as fuel in accumulators is an interesting fact.'
- (23) Grzechem jest [oglądanie tego filmu].  
sin.INST.SG.F is.3.SG watching.NOM.SG.N this.GEN film.GEN  
'Watching this film is a sin.'

Furthermore, predicative nominals taking a clausal subject also occur with predicates other than the copula, including WYDAWAĆ SIĘ 'seem'. Assuming that the instrumental dependent is predicative (as in cases with a nominal subject), the clause should be analysed as its subject to avoid stipulating special valency requirements.

- (24) Najbardziej rozsądnym przypuszczeniem wydaje się, [że  
most reasonable.INST.SG.N presumption.INST.SG.N seem.3.SG REFL that  
miał zostać [...] zabity [...]].  
had.3.SG.M become.INF killed.NOM  
'The most reasonable presumption seems to be that he was to be killed.' (NKJP)
- (25) Wobec takiej perspektywy ekonomicznie lepszą opcją  
against such perspective economically better.INST.SG.F option.INST.SG.F  
wydaje się [[uniknąć legalnego zatrudnienia], [pracować na  
seem.3.SG REFL avoid.INF legal.GEN employment.GEN work.INF on  
czarno], [pobierać pomoc] i [później liczyć na umorzenie długu]].  
black take.INF support.ACC and later count.INF on remission debt  
'From this perspective, the economically better solution seems to be to avoid legal employment, work illegally, claim benefits and later count on (hope for) debt remission.' (NKJP)

## 2.2 Predicative adjectives

This section presents examples with predicative adjectives whose subject is clausal – earlier examples include (2), where the subject is an infinitival phrase, and (1), where the subject is a CP. The latter also includes raising, which, as explained earlier, only occurs with the subject in Polish. All examples presented in this section feature the raising verb WYDAWAĆ SIĘ 'seem'. The adjective can be specified for any degree (positive, comparative, superlative) – synthetically or analytically (with the help of the adverb BARDZO 'very' in an appropriate degree).

Unlike predicative nominals, predicative adjectives agree with their nominal subject in number and gender:

- (26) Facet był miły.  
guy.NOM.SG.M was.3.SG.M kind.NOM.SG.M  
'The guy was kind.'
- (27) Kobieta była miła.  
woman.NOM.SG.F was.3.SG.F kind.NOM.SG.F  
'The woman was kind.'
- (28) (Trzy) kobiety były miłe.  
three.NOM.PL.F woman.NOM.PL.F were.3.PL.F kind.NOM.PL.F  
'(Three) women were kind.'

As shown in (29), this also applies to numeral subjects which require a nominal in genitive case (unlike in (28)). Because the numeral subject in (29) is not nominative (but accusative: Przepiórkowski 1999), it triggers default agreement on the verb (third person, singular, neuter). Still, full agreement (in number, gender and case) is required between the subject and the predicative complement – it can either agree in case with the accusative numeral head, or with the genitive nominal.

- (29) Pięć kobiet było miłe/miłych.  
five.ACC.PL.F woman.GEN.PL.F was.3.SG.N kind.ACC/GEN.PL.F  
'Five women were kind.'

However, when the subject of a predicative adjective is clausal (a CP or an infinitive, see (1)–(2) and examples in (30)–(35) below), it triggers default agreement both on the verb and on the predicative adjective – the latter must be marked for singular number and neuter gender. This can be observed in all relevant examples presented in this paper (see e.g. (44)–(45), (54)–(57) discussed later).

Finally, while predicative nominals discussed in §2.1 consistently appear in instrumental case (the so called instrumental of predication), predicative adjectives with a clausal subject are typically nominative (as in most examples), but not always – an example with instrumental case is provided in (35). While this option seems to be generally available as an alternative (such examples are grammatical), the nominative is clearly more frequent and seems to be the default agreement case marking on predicative adjectives with a clausal subject (a CP or an infinitival phrase).

Examples with a CP subject are given in (30)–(32) – (30) features synthetic comparative degree, while (31) shows analytic comparative degree:

- (30) Dziwniejsze wydawało się, [że M.M. miała  
strange.NOM.SG.N.COMPAR seemed.3.SG.N REFL that M.M.NOM had.3.SG.F  
[...] większą sprzedaż]!  
higher.ACC sale.ACC  
'It seemed more strange that M.M. had higher sales.' (NKJP)
- (31) Bardziej prawdopodobne wydawało się, [że ktoś jej pomógł].  
more likely.NOM.SG.N seemed.3.SG.N REFL that sb.NOM she.DAT helped  
'It seemed more likely that somebody helped her.' (NKJP)

- (32) Wdowie logiczne wydawało się, [że nabyła  
 widow.DAT logical.NOM.SG.N seemed.3.SG.N REFL that gained.3.SG.F  
 prawo do przejęcia mieszkania po zmarłym mężu].  
 right.ACC to take over flat after deceased husband  
 ‘It seemed logical to the widow that she gained the right to take over her  
 husband’s flat.’ (NKJP)

Examples with an infinitival subject are provided in (33)–(35):

- (33) Rozsądne wydawało się więc [poczekać].  
 sensible.NOM.SG.N seemed.3.SG.N REFL SO wait.INF  
 ‘So it seemed sensible to wait.’ (NKJP)
- (34) Nierealne wydaje się [spodziewać takich działań].  
 unrealistic.NOM.SG.N seem.3.SG REFL expect.INF such.GEN actions.GEN  
 ‘It seems unrealistic to expect such actions.’ (NKJP)
- (35) Naturalnym wydaje się [[...] spróbować uratować tę drogę].  
 natural.INST.SG.N seem.3.SG REFL try.INF save.INF this road.ACC  
 ‘It seems natural to try to save this road.’ (NKJP)

Similarly as with predicative nominals, it is possible to construct examples where the non-canonical clausal subject is substituted with a gerund, which makes an uncontroversial nominal subject: *odpowiadanie* ‘answering’ in (36) corresponds to the infinitival subject (*odpowiadać* ‘answer’) in (2), while *nabycie* ‘gaining’ in (37) corresponds to the CP subject (*że nabyła...* ‘that gained’) in (32).

- (36) Ciekawe jest [odpowiadanie na pytania]?  
 interesting.NOM.SG.N is.3.SG answering.NOM.SG.N on questions  
 ‘Is answering questions interesting?’
- (37) Wdowie logiczne wydawało się [nabycie prawa].  
 widow.DAT logical.NOM.SG.N seemed.3.SG.N REFL gaining.NOM.SG.N right  
 ‘Gaining the right seemed logical to the widow.’

### 2.3 Predicative adverbs

Counter to claims that adverbs are never predicates (e.g., Rothstein 2001: 129 cited in §1), in Polish an adverb in any degree (positive, comparative, superlative) may serve as the predicative complement (in principle, subject to semantic constraints).

As mentioned earlier, Polish adverbs are morphologically distinct from adjectives – adjectives are marked for features such as case, number or gender, these are not applicable to adverbs. Hence adverbs and adjectives have different distribution.

Examples in (38)–(39) contain predicative adverbs whose subject is a CP:

- (38) Dobrze jest, [że czują pewien respekt].  
 good.ADV is.3.SG that feel.3.PL some.ACC respect.ACC  
 ‘It is good that they feel some respect.’ (NKJP)



- (39) Maciusiowi bardzo przyjemnie było, [że królewski poseł nie Maciuś.DAT very pleasant.ADV was.3.SG.N that royal.NOM envoy.NOM NEG mówił w zagranicznym języku]. spoke.3.SG.M in foreign language  
 ‘That the royal envoy did not speak in foreign language was very pleasant to Maciuś.’ (NKJP)

Examples in (40)–(41) contain predicative adverbs whose subject is an infinitival phrase. Additionally, (40) involves coordination of predicative adverbs.

- (40) Najłatwiej i najtaniej było [upłynnić ziarno czy ziemniaki]. easy.ADV.SUP and cheap.ADV.SUP was.3.SG.N sell.INF grain or potatoes  
 ‘It was easiest and cheapest to sell grain or potatoes.’ (NKJP)
- (41) Oczywiście autorowi najtrudniej było [uzyskać szczegóły]. obviously author.DAT difficult.ADV.SUP was.3.SG.N get.INF details.ACC  
 ‘Obviously, to get the details was the most difficult for the author.’ (NKJP)

Unlike in the case of predicative nominals (§2.1) and adjectives (§2.2), it is not possible to construct examples with predicative adverbs whose subject is a gerund.

## 2.4 Without a copula

The copula in constructions involving a clausal subject is optional and it may be dropped – the predicative item serves then as the main predicate, just as in standard copular constructions in Polish, involving a nominal subject, see (42)–(43):

- (42) Zaczęło mu odbijać, bo dzień taki długi. started he.DAT freak out.INF because day.NOM.SG.M so long.NOM.SG.M  
 ‘He started to freak out, because the day is so long.’ (NKJP)
- (43) Powiedz to całemu piekłu, bo moje słowa nie wiatr! tell.2.SG this entire hell because my words.NOM NEG wind.NOM  
 ‘Tell this to all the hell, because my words are not wind (= are not to be ignored)!’ (NKJP)

Both examples above include a subordinate clause with the complementiser *bo* ‘because’, where the predicative item serves as the main predicate in the absence of the copula. In (42) it is the predicative adjective *długi* ‘long’, whose subject is *dzień* ‘day’, while in (43) it is the predicative noun *wiatr* ‘wind’ (modified using negation), whose subject is *słowa* ‘words’.

Examples below feature predicative adjectives (both superlative) controlled by an infinitival phrase (*być dobrym premierem* ‘to be a good PM’) in (44) or by a CP (*że dojedzie się do celu* ‘that one will reach the destination’) in (45). As explained in §2.2, predicative adjectives controlled by clausal subjects are in the default agreement form: singular neuter. It seems, however, that when the predicative adjective is the main predicate (there is no copula), it must be marked for nominative case – by contrast, when the copula is present, the instrumental case is rare, but possible.

- (44) Najważniejsze [być dobrym premierem].  
important.NOM.SG.N.SUP be.INF good.INST PM.INST  
'To be a good PM [is] the most important.' (Google)
- (45) Najważniejsze, [że dojedzie się do celu].  
important.NOM.SG.N.SUP that reach.3.SG REFL to destination  
'That one will reach the destination [is] the most important.' (NKJP)

Examples below show predicative adverbs (superlative or positive) controlled by a clausal subject: an infinitival phrase (*pogodzić się z tym* 'to come to terms with this') in (46) or by a CP (*że nie udało się uratować sosen* 'that we did not manage to save the pines') in (47).

- (46) Najtrudniej [pogodzić się z tym] ludziom młodym.  
difficult.ADV.SUP reconcile.INF REFL with this people.DAT young.DAT  
'To come to terms with this [is] most difficult for young people.' (NKJP)
- (47) Przykro, [że nie udało się uratować sosen].  
sad.ADV that NEG managed.3.SG.N REFL save.INF pines.GEN  
'That we did not manage to save the pines [is] sad.' (NKJP)

Finally, it seems that it is also possible (though perhaps only marginally – such constructions are not very frequent with nominal controllers in Polish) to use predicative nominals without a copula with a clausal controller – in (48) it is a CP (*że pielęgniarce zarabiają tak mało* 'that nurses earn so little'), while in (49) it is an infinitival phrase (*olewać własny naród* 'to disregard your own nation'):

- (48) Absolutny skandal, że pielęgniarce tak mało zarabiają.  
absolute.NOM.SG.M scandal.NOM.SG.M that nurses.NOM so little earn.3.PL  
'It is an absolute scandal that nurses earn so little.' (Google)
- (49) Skandal - [tak olewać własny naród].  
scandal.NOM.SG.M so disregard.INF OWN.ACC nation.ACC  
'It is a scandal to disregard your own nation in this way.' (NKJP)

## 2.5 With verbs taking an object-controlled predicative complement

This section presents examples with predicates *UWAŻAĆ* 'consider (imperfective)' and *UZNAĆ* 'consider (perfective), acknowledge', which take a predicative complement (inside a PP) which is not controlled by a subject, but by a different dependent – an object (it can passivise, as discussed in (58)–(59)). This amply shows that clauses may serve as controllers of predicative complements in Polish, which means that they should also be able to be the subject of sentences with a copula.

Examples with a predicative nominal controlled by a clausal object:

- (50) Naprawdę uważasz za regułę, [że ludzi dotykają choroby dlatego, że ich nie unikają]?  
really consider.2.SG as rule.ACC.SG.F that people.ACC touch.3.PL  
diseases.NOM because that they.GEN NEG avoid.3.PL

‘Do you really consider it a rule that diseases affect people because they do not avoid them?’ (NKJP)

- (51) Uznał za sukces, [że władze zgodziły się na rozmowę].  
considered.3.SG.M as success.ACC.SG.M that authorities.NOM agreed.3.PL  
REFL for talk  
‘He considered it a success that the authorities agreed for a talk.’ (NKJP)

Examples with a predicative nominal controlled by an infinitival complement:

- (52) Koledzy z klubu uważali za dyshonor [przegrywać z kobietą].  
colleagues.NOM from club considered.3.PL.M as dishonour.ACC.SG.M  
lose.INF with woman  
‘Colleagues from the club considered it a dishonour to lose against a woman.’ (NKJP)

- (53) Lekarz poczuł się winny i uznał za obowiązek [przeprosić pacjentkę].  
doctor felt.3.SG.M REFL guilty and considered.3.SG.M as duty.ACC.SG.M  
apologise.INF patient.ACC  
‘The doctor felt guilty and he considered it his duty to apologise to the patient.’ (NKJP)

Examples with a predicative adjective controlled by a clausal complement:

- (54) Uważam za prawdopodobne, [że wirus ten może się rozprzestrzenić].  
consider.1.SG as probable.ACC.SG.N that virus this may REFL  
spread.INF  
‘I consider it probable that this virus may spread.’ (NKJP)
- (55) Jeżeli uznasz za prawdziwe, [że masz rękę i oko].  
if consider.2.SG as true.ACC.SG.N that have.2.SG hand.ACC and eye.ACC  
‘If you consider it true that you have a hand and an eye.’ (NKJP)

Examples with a predicative adjective controlled by an infinitival complement:

- (56) Uważał za stosowne [zademonstrować swój sprzeciw].  
considered.3.SG.M as suitable.ACC.SG.N demonstrate.INF his objection.ACC  
‘He considered it appropriate to express his objection.’ (NKJP)
- (57) Uznała za słuszne [skierować środki na likwidowanie negatywnych skutków].  
considered.3.SG.F as fair.ACC.SG.N direct.INF assets.ACC for removing  
negative effects  
‘She considered it fair to use assets to remove negative effects.’ (NKJP)

As mentioned earlier, it seems that examples with the predicative complement of *UWAŻAĆ* and *UZNAĆ* may be passivised, which results in the non-canonical object controller becoming the subject – the constructed passive examples in (58) and (59) roughly correspond to active examples in (50) and (54), respectively.

- (58) Przez wielu jest uważane za regułę, [że ludzie  
by many is.3.SG considered.NOM.SG.N as rule.ACC.SG.F that people.ACC  
dotykają choroby dlatego, że ich nie unikają].  
touch.3.PL diseases.NOM because that they.GEN NEG avoid.3.PL  
'It is considered a rule by many that diseases affect people because they do  
not avoid them.'
- (59) Jest uważane przez ekspertów za prawdopodobne, [że  
is.3.SG considered.NOM.SG.N by experts as probable.ACC.SG.N that  
wirus ten może się rozprzestrzenić].  
virus this may REFL spread.INF  
'It is considered probable by experts that this virus may spread.'

Finally, because the predicative complement of verbs discussed above is a prepositional phrase, where the preposition *ZA* assigns accusative case to its dependent, it is not surprising that there are no such examples with a predicative adverb – adverbs do not have case.

## 2.6 Coordination

Let us consider (60) – it provides additional evidence from coordination which shows that the clausal dependent of *UWAŻAĆ* in examples in §2.5 has the same grammatical function as the corresponding nominal dependent (object in active voice):

- (60) Uważając [[za wariactwo] [dać się złapać hitlerowcom]],  
considering as madness.ACC.SG.N give.INF REFL catch.INF Nazis.DAT  
a [[samobójstwo] [za tchórzostwo]].  
and suicide.ACC.SG.N as cowardice.ACC.SG.N  
'Considering [[letting Nazis catch you] [madness]], and [[suicide] [cowardice]].' (NKJP)

(60) involves non-constituent coordination (Maxwell and Manning 1996) – two pairs of dependents of the predicate *UWAŻAĆ* 'consider' are coordinated, with each pair containing a predicative PP and its object controller. The first conjunct consists of the predicative PP *za wariactwo* 'as madness' and its infinitival phrase controller (*dać się złapać hitlerowcom* 'let Nazis catch you'). In the second conjunct the order is reversed: it contains the (structural) accusative nominal controller (*samobójstwo* 'suicide') followed by the predicative PP *za tchórzostwo* 'as cowardice'.

## 2.7 Control

The basic syntactic analysis of examples involving a predicative adverb controlled by an infinitival phrase or a CP is complicated by the fact that adverbial predicates

may occur with a dative experiencer acting as the controller of the subject of the infinitival phrase: see (41) with a copula and (46) without a copula, repeated below for convenience as (61) and (62).

- (61) Oczywiście autorowi najtrudniej było [uzyskać szczegóły].  
 obviously author.DAT difficult.ADV.SUP was.3.SG.N get.INF details.ACC  
 ‘Obviously, to get the details was the most difficult for the author.’ (NKJP)
- (62) Najtrudniej [pogodzić się z tym] ludziom młodym.  
 difficult.ADV.SUP reconcile.INF REFL with this people.DAT young.DAT  
 ‘To come to terms with this [is] most difficult for young people.’ (NKJP)

It is worth noting that adverbial predicates differ in their propensity to occur with dative experiencers – for example, CIEKAWIE ‘interesting.ADV’ combines with dative experiencers perhaps marginally, but see the attested (63):

- (63) Jako że mieszkam nad samą Odrą, ciekawie mi było [o  
 as that live.1.SG over self Oder interesting.ADV I.DAT was.3.SG.N about  
 niej poczytać ;)  
 her read.INF  
 ‘As I live by the Oder, it was interesting for me to read about it.’ (Google)

Since the dative experiencer acts as a controller of the subject of the subject infinitival phrase in (63), it is an instance of control into a subject.

While rare, control into the subject was discussed in Arka and Simpson 1998 for Balinese, where it occurs under objective voice, as shown in (64):

- (64) [teka mai prajani] ane orahin tiang Nyoman  
 come here immediately REL ov.ask 1 Nyoman  
 ‘Coming here immediately is what I asked Nyoman to do.’  
 (Arka and Simpson 1998: ex. (17))

The main verb in this example, *orahin* ‘ask’, is in objective voice (marked in glosses as *ov*). Its subject is the clause *teka mai prajani* ‘come here immediately’ – the head of this clause, *teka* ‘come’, is obligatorily controlled by the object of the main verb, *Nyoman*. The relevant functional control equation is ( $\uparrow$  SUBJ SUBJ)=( $\uparrow$  OBJ).

Polish provides independent evidence supporting the need for control into the subject – it also occurs with the verb UDAĆ SIĘ ‘manage’, which can either take a nominal subject (it agrees with the verb, so the dative dependent is not the subject), as in (65), or an infinitival subject, as in (66) (as well as in (47)).

- (65) Nie udał im się [rozruch ciągnika].  
 NEG manage.3.SG.M they.DAT REFL start.NOM.SG.M tractor.GEN  
 ‘They did not succeed in starting the tractor.’
- (66) Nie udało im się [uruchomić ciągnika].  
 NEG manage.3.SG.N they.DAT REFL start.INF tractor.GEN  
 ‘They did not manage to start the tractor.’ (NKJP)

The control equation needed in examples with an infinitival subject such as (47) and (66) is provided in the lexical entry in (67).<sup>3</sup>

$$(67) \quad (\uparrow \text{PRED}) = \text{'MANAGE} < (\uparrow \text{SUBJ}) (\uparrow \text{OBJ}_\theta) >'$$

$$(\uparrow \text{OBJ}_\theta) = (\uparrow \text{SUBJ SUBJ})$$

This equation is not used in examples such as (65) – the subject in (65) does not have a controlled subject (its subject is closed), so using the equation in (67) would result in an incoherent f-structure.

### 3 Formalisation

Though the data is rich and complex, the formalisation of the proposed analysis is simple and it was verified in an XLE (Crouch et al. 2011) implementation.

It requires minimal modifications of c-structure rules: (68) allows CP/InfP to be a subject or an object (accounting for object-controlled predicative complements, see §2.5), while (69) allows AdvP to be a predicative complement. When DEP is attached as a dependent of a predicate, it bears the co-head annotation ( $\uparrow = \downarrow$ ).

$$(68) \quad \text{DEP} \rightarrow \{ \text{CP} \mid \text{InfP} \} \quad (69) \quad \text{DEP} \rightarrow \text{AdvP}$$

$$\downarrow = (\uparrow \{ \text{SUBJ} \mid \text{OBJ} \}) \quad \downarrow = (\uparrow \text{XCOMP-PRED})$$

The functional annotation of the predicative complement in (69) uses the XCOMP-PRED grammatical function – this is because this paper assumes that predicative complements are open and so they require a subject which is the item predicated of, as opposed to the closed PREDLINK analysis of predicative complements (Butt et al. 1999), where the item predicated of is not structure-shared with the subject of the predicative item. However, the current analysis could easily be converted into a closed PREDLINK analysis – the CONTROLLER attribute (Patejuk and Przepiórkowski 2014) could be introduced to store the controller locally to the predicative item.

The lexicon is modified by introducing predicative entries for adverbs, which also allow for dative experiencers (OBJ<sub>θ</sub>) – see the schematic lexical entry in (70). Its first disjunct (INF) is used in (13), (41), (46) and (63), while the second disjunct (COMP-FORM) is used in (38), (39) and (47). There is no need to add predicative entries for nominals and adjectives, since they already exist in the grammar.

$$(70) \quad (\uparrow \text{PRED}) = \text{'LEMMA} < (\uparrow \text{SUBJ}) (\uparrow \text{OBJ}_\theta) >'$$

$$[[ (\uparrow \text{SUBJ CAT}) =_c \text{INF} \wedge (\uparrow \text{OBJ}_\theta) = (\uparrow \text{SUBJ SUBJ}) ] \vee (\uparrow \text{SUBJ COMP-FORM})]$$

$$(\uparrow \text{OBJ}_\theta \text{ CASE}) =_c \text{DAT}$$

Note that, as explained in §2.4, predicative items may also act as the main predicate in the absence of the copula. Since predicative nominals and adjectives are normally allowed to function as the main predicate, the relevant rule is present in the grammar – with NP and AP disjuncts. This rule need only be modified by adding the AdvP disjunct – see (71). The functional annotation of the disjunctive right hand side contains the head annotation ( $\downarrow = \uparrow$ ), which contributes the predicate introduced by the predicative item as the main predicate. It also ensures that the relevant element is predicative using an existential equation (cf. ( $\downarrow \text{PREDICATIVE}$ )).

<sup>3</sup>While (67) uses functional control, further research is needed to determine suitable control type.

$$(71) \quad S \rightarrow \{ NP \mid AP \mid AdvP \}$$

$$\downarrow = \uparrow$$

$$(\downarrow \text{ PREDICATIVE})$$

The lexical entry of the copula, (72), is standard – it structure-shares its subject with the subject of the open predicative complement (XCOMP-PRED):

$$(72) \quad (\uparrow \text{ PRED}) = \text{'BE} < (\uparrow \text{ XCOMP-PRED}) > (\uparrow \text{ SUBJ}) \text{'}$$

$$(\uparrow \text{ SUBJ}) = (\uparrow \text{ XCOMP-PRED SUBJ})$$

As shown in (70), lexical entries of predicative adverbs contain the control equation stating that the dative experiencer is the controller of the infinitival subject of the predicative adverb (( $\uparrow \text{ OBJ}_\theta$ ) = ( $\uparrow \text{ SUBJ SUBJ}$ )). As a result, there is no need to create a special lexical entry for the copula with a dative experiencer – the copula has one standard two-argument lexical entry shown in (72). This yields a unified analysis of control with predicative adverbs: it is the same regardless of whether the copula is present (as in (41)) or not (see (46)) – in both cases the dative experiencer is a dependent of the predicative adverb, resulting in a fully consistent representation.

Finally, agreement with predicative adjectives is handled using templates called inside the lexical entry of the adjective – see (73). It imposes appropriate agreement with clausal agreement targets – a CP has the attribute COMP-FORM hosting the complementiser, while an infinitive has the attribute CAT with value INF. It ensures that the adjective is in the default agreement form (singular number, neuter gender) and it allows it to be marked for nominative or instrumental case.<sup>4</sup>

$$(73) \quad \text{PRIPRED-ADJ-CLAUSAL} \equiv$$

$$[(\downarrow \text{ SUBJ CAT}) =_c \text{ INF} \vee (\downarrow \text{ SUBJ COMP-FORM})]$$

$$(\downarrow \text{ CASE}) \in_c \{ \text{NOM, INST} \} \quad (\downarrow \text{ NUM}) =_c \text{ SG} \quad (\downarrow \text{ GEND}) =_c \text{ N}$$

The following subsections present f-structure representations (sometimes simplified; XC-P=XCOMP-PRED) resulting from the formalisation presented above. Due to space limits, it is only possible to present f-structures of selected examples.

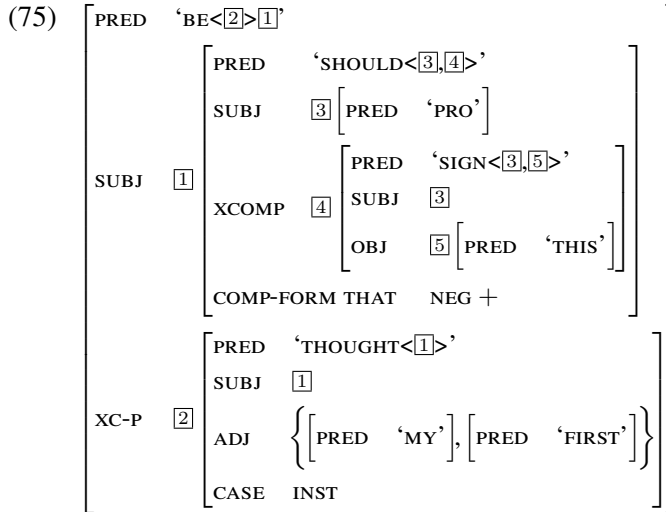
### 3.1 Nominals

(74) corresponds to (20), where the predicative nominal is controlled by an InfP:

$$(74) \quad \left[ \begin{array}{l} \text{PRED} \quad \text{'BE} < \boxed{2} > \boxed{1} \text{' } \\ \text{SUBJ} \quad \boxed{1} \quad \left[ \begin{array}{l} \text{PRED} \quad \text{'WATCH} < \boxed{3}, \boxed{4} > \text{' } \\ \text{SUBJ} \quad \boxed{3} \quad \left[ \text{PRED} \quad \text{'PRO'} \right] \\ \text{OBJ} \quad \boxed{4} \quad \left[ \begin{array}{l} \text{PRED} \quad \text{'FILM'} \\ \text{ADJ} \quad \left\{ \left[ \text{PRED} \quad \text{'THIS'} \right] \right\} \end{array} \right] \end{array} \right] \\ \text{XC-P} \quad \boxed{2} \quad \left[ \begin{array}{l} \text{PRED} \quad \text{'SIN} < \boxed{1} > \text{' } \\ \text{SUBJ} \quad \boxed{1} \\ \text{CASE} \quad \text{INST} \end{array} \right] \end{array} \right]$$

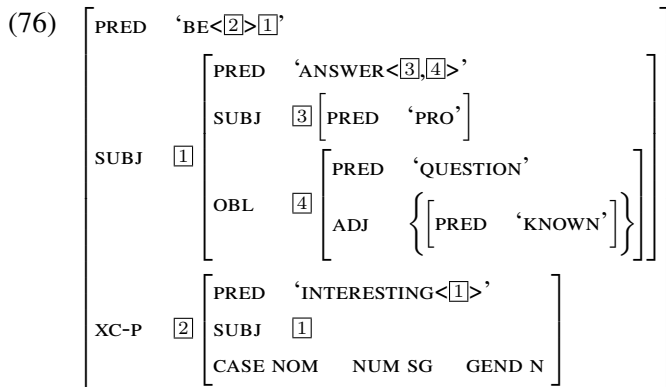
<sup>4</sup>OT marks can be used to formalise the observation that nominative is clearly preferred as the default agreement case with clauses, while instrumental is a rare and rather marked alternative.

(75) corresponds to (18), where the predicative nominal is controlled by a CP:

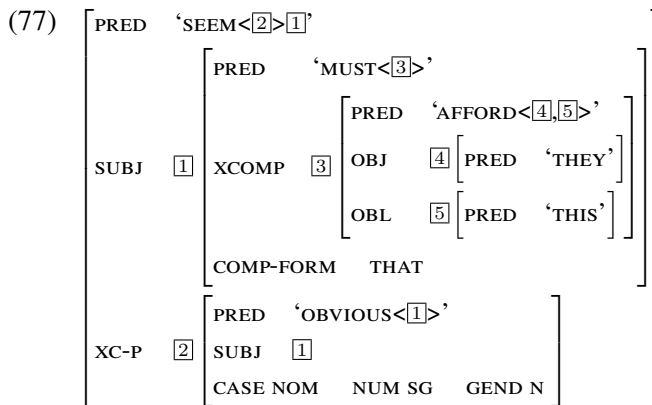


### 3.2 Adjectives

(76) corresponds to (2), where the predicative adjective is controlled by an InfP:



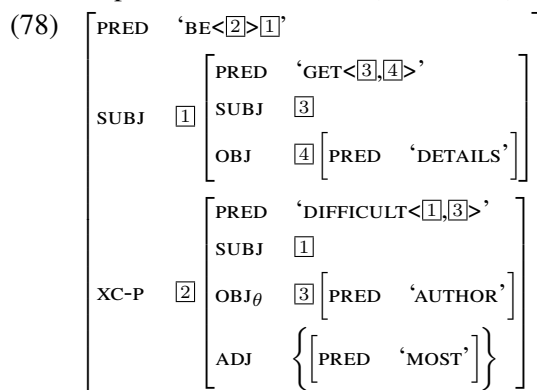
(77) corresponds to (1), where the predicative adjective is controlled by a CP; it also includes a raising verb (WYDAWAĆ SIĘ 'seem'):



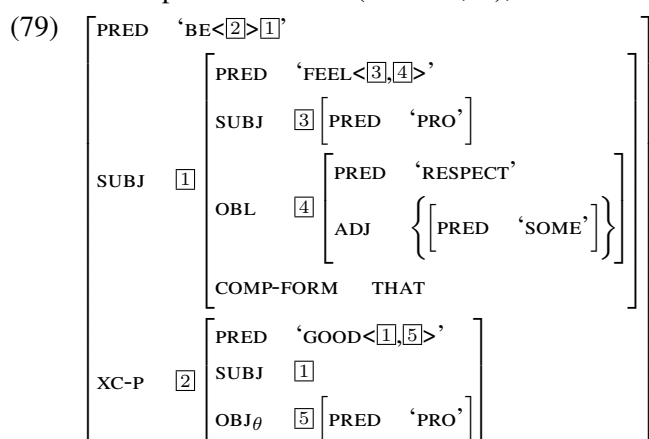


### 3.3 Adverbs

(78) corresponds to (41), where the predicative adverb is controlled by an InfP. The dative dependent of the adverb (AUTHOR, [3]) is the subject of the infinitive (GET, [1]):



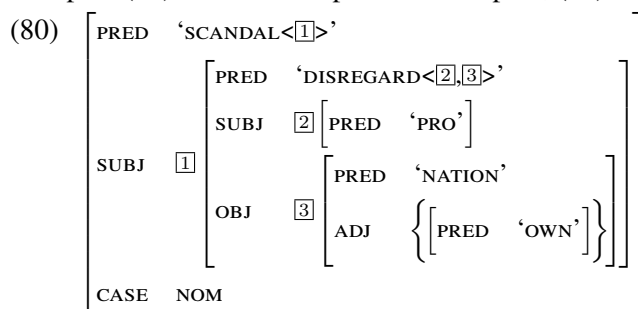
(79) corresponds to (38), where the predicative adverb is controlled by a CP. The nominal complement of FEEL (RESPECT, [4]), is an OBL because it does not passivise.



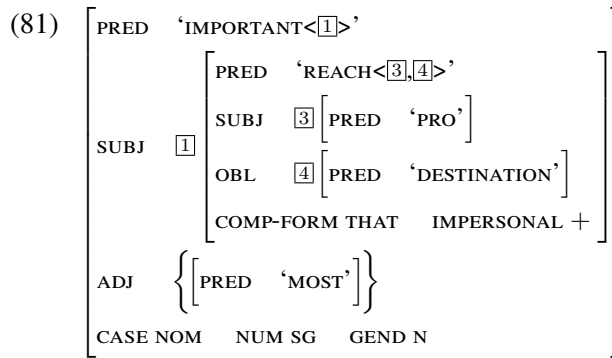
### 3.4 Without a copula

The f-structures in this section represent examples where, in absence of a copula, the predicative item acts as the main predicate. Compare these to f-structures in earlier sections where the copula is present – they correspond to the xc-p function.

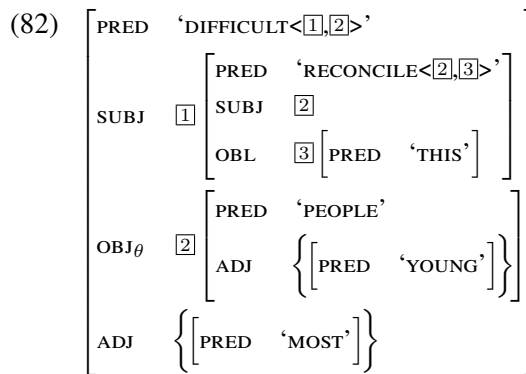
(80) corresponds to (49), where the predicative nominal is controlled by an InfP. Compare (80) to its counterpart with a copula, (74).



(81) corresponds to (45), where the superlative predicative adjective is controlled by a CP. Compare (81) to its counterpart with a copula, (77).

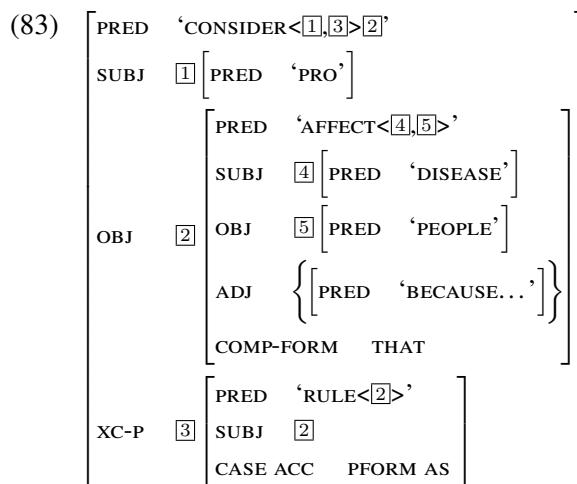


(82) corresponds to (46), where the superlative predicative adverb is controlled by an InfP. The dative dependent of the adverb (PEOPLE, [2]) is the subject of the infinitive (RECONCILE, [1]). Compare (82) to its counterpart with a copula, (78).

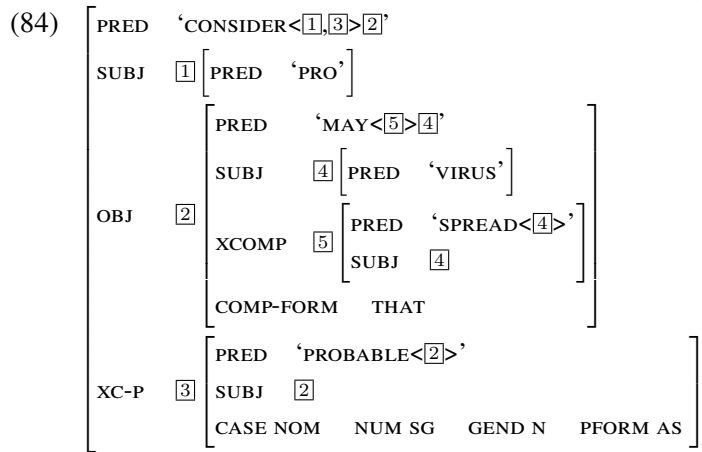


### 3.5 With verbs taking an object-controlled predicative complement

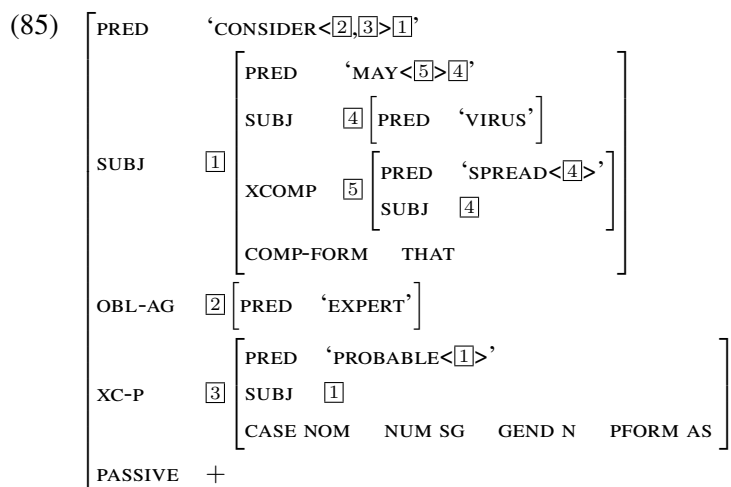
(83) corresponds to (50), where the predicative nominal (inside a PP) is controlled by a CP which is the object ([2]) of the main predicate (CONSIDER):



(84) corresponds to (54), where the predicative adjective (inside a PP) is controlled by a CP which is the object (2) of the main predicate (CONSIDER):



(85) corresponds to (59), where the predicative adjective (inside a PP) is controlled by a CP which is the subject (1) of the main predicate (CONSIDER). This is because it is the passive rough<sup>5</sup> counterpart of (54), represented in (84) above. As a result of the difference in voice, while in (84) the predicative adjective is controlled by the active object, in (85) it is controlled by the passive subject.

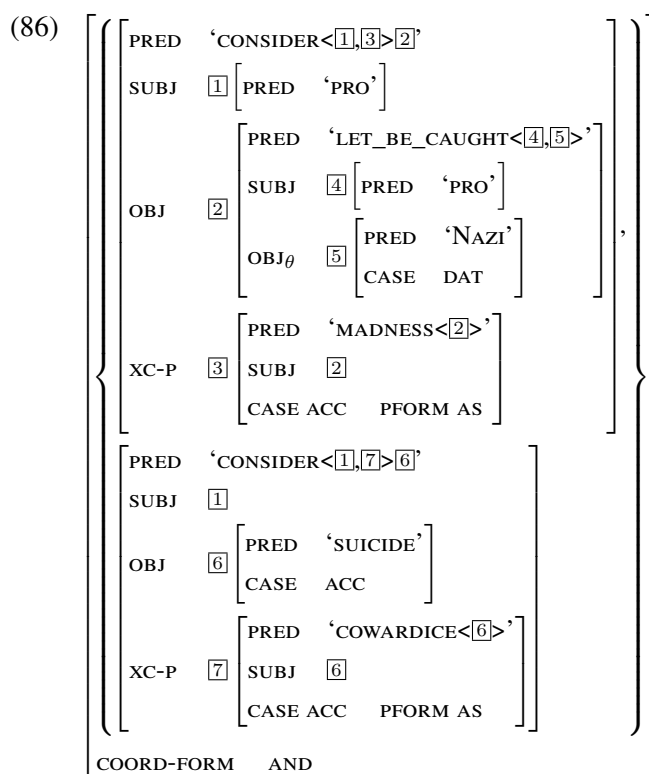


### 3.6 With coordination

(86) corresponds to (60), which is particularly demanding because it involves a complex case of coordination, namely non-constituent coordination. What is interesting is that the first conjunct consists of a predicative nominal (MADNESS, 3) controlled by an infinitival phrase (LET\_BE\_CAUGHT,<sup>6</sup> 2), while the second conjunct contains a predicative nominal (COWARDICE, 7) controlled by another nominal (SUICIDE, 6).

<sup>5</sup>The *by*-phrase in (59), *by experts*, does not correspond to the implicit first person subject in (54).

<sup>6</sup>This is a placeholder for a far more complex structure – (86) is complex enough.



## 4 Conclusion

This paper presented a vast array of data from Polish illustrating predicative complements with a non-canonical, clausal controller – a complementiser phrase (CP) or an infinitival phrase (InfP). It discussed three types of predicative complements: nominals, adjectives and adverbs, the last of which has been rejected previously.

It presented arguments showing that clauses are subjects in the relevant predicative constructions. It also discussed examples where the copula is not present, when the predicative item functions as the main predicate – just as in standard copular constructions (with a nominal controller). Furthermore, it presented examples which involve a predicative complement controlled by an object, together with their passive variant, where the predicative complement is controlled by the subject. The aim was to argue convincingly that clauses can control predicative items.

While default agreement triggered by clausal subjects has been previously discussed in the context of subject-verb agreement, this paper discussed default agreement observed on predicative adjectives controlled by a clause.

Counter to previous claims, this paper argued for the existence of predicative adverbs, which can be predicated of clauses (CP, InfP) in Polish. It also discussed the issue of control into the infinitival subject by the dative argument of the predicative adverb, providing a unified analysis of such control.

Finally, this paper provided a simple LFG formalisation of the presented analysis, implemented and tested in XLE.

## References

- Arka, I Wayan and Simpson, Jane. 1998. Control and complex arguments in Balinese. In Miriam Butt and Tracy Holloway King (eds.), *The Proceedings of the LFG'98 Conference*, University of Queensland, Brisbane: CSLI Publications.
- Bondaruk, Anna. 2013. *Copular Clauses in English and Polish*. Lublin: Wydawnictwo KUL.
- Bondaruk, Anna and Szymanek, Bogdan. 2007. Polish Nominativeless Constructions with Dative Experiencers: Form, Meaning and Structure. *Studies in Polish Linguistics* 4, 61–97.
- Butt, Miriam, King, Tracy Holloway, Niño, María-Eugenia and Segond, Frédérique. 1999. *A Grammar Writer's Cookbook*. Stanford, CA: CSLI Publications.
- Citko, Barbara. 2004. Small Clauses Reconsidered: Not So Small and Not All Alike. *Lingua* 118, 261–295.
- Crouch, Dick, Dalrymple, Mary, Kaplan, Ron, King, Tracy, Maxwell, John and Newman, Paula. 2011. XLE Documentation. [http://www2.parc.com/isl/groups/nltt/xle/doc/xle\\_toc.html](http://www2.parc.com/isl/groups/nltt/xle/doc/xle_toc.html).
- Dalrymple, Mary, Dyvik, Helge and King, Tracy Holloway. 2004. Copular Complements: Closed or Open? In Miriam Butt and Tracy Holloway King (eds.), *The Proceedings of the LFG'04 Conference*, pages 188–198, Stanford, CA: CSLI Publications.
- Dziwirek, Katarzyna. 1990. Default Agreement in Polish. In Katarzyna Dziwirek, Patrick Farrell and Errapel Mejías-Bikandi (eds.), *Grammatical Relations: A Cross-Theoretical Perspective*, Stanford, CA: CSLI Publications.
- Hofmeister, Philip and Sag, Ivan. 2010. Cognitive Constraints and Island Effects. *Language* 86, 366–415.
- Huang, C.-T. J. 1982. *Logical Relations in Chinese and the Theory of Grammar*. Ph.D. Thesis, Massachusetts Institute of Technology, Cambridge, MA.
- Kallas, Krystyna. 1993. Kilka uwag na temat charakterystyki akomodacyjnej i konotacyjnej leksemów BYĆ. *Acta Universitatis Nicolai Copernici: Filologia Polska* XI, 27–39.
- Maxwell, III, John T. and Manning, Christopher D. 1996. A Theory of Non-constituent Coordination based on Finite-State Rules. In Miriam Butt and Tracy Holloway King (eds.), *The Proceedings of the LFG'96 Conference*, Grenoble, France: CSLI Publications.
- Patejuk, Agnieszka. 2015. *Unlike coordination in Polish: an LFG account*. Ph.D. dissertation, Institute of Polish Language, Polish Academy of Sciences, Cracow.
- Patejuk, Agnieszka and Przepiórkowski, Adam. 2014. In Favour of the Raising Analysis of Passivisation. In Miriam Butt and Tracy Holloway King (eds.), *The Proceedings of the LFG'14 Conference*, pages 461–481, Stanford, CA: CSLI Publications.
- Przepiórkowski, Adam. 1999. *Case Assignment and the Complement-Adjunct Dichotomy: A Non-Configurational Constraint-Based Approach*. Ph.D. dissertation, Universität Tübingen, Tübingen.
- Przepiórkowski, Adam, Bańko, Mirosław, Górski, Rafał L. and Lewandowska-Tomaszczyk, Barbara (eds.). 2012. *Narodowy Korpus Języka Polskiego*. Warsaw: Wydawnictwo Naukowe PWN.
- Rothstein, Susan. 2001. *Predicates and Their Subjects*. Springer.