On the Distribution of *-kolwiek* 'ever' in Polish Free Relatives*

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Abstract: This paper analyzes the distribution of the particle *-kolwiek* 'ever' in Polish free relatives. The empirical observation it builds on concerns the obligatory presence of *-kolwiek* in complex free relatives. I argue against accounts that reduce this requirement to purely semantic considerations and propose a syntactic account instead. This account rests on independently motivated claims about the structure of Polish noun phrases and the positive setting of the DP Parameter for Polish. The crucial innovation lies in the structure proposed for *wh*-phrases in free relatives; I argue that such *wh*-phrases have a more complex internal structure than *wh*-phrases in questions, in that they require the topmost head inside the nominal projection, the Q head, to be filled by an overt element in order to support the maximality operator associated with the interpretation of free relatives.

1. Puzzle

My main goal in this paper is to account for a curious restriction on the distribution of the particle *-kolwiek* 'ever' in Polish free relatives. Most existing accounts of this restriction focus on the semantic contribution of *ever* (and its equivalents in other languages) and ignore (or mention only in passing) the effects *ever* can have on the grammaticality of a sentence (see, for example, Caponigro 2003, Dayal 1997, Tredinnick 2005). The more general theoretical question I address in this paper is whether we can learn anything about the structure of noun phrases in Polish, and perhaps in Slavic languages in general, from the behavior of free relatives in these languages. I thus hope to contribute to the ongoing debate in Slavic linguistics regarding the parametrization of the DP Hypothesis. The debate concerns the issue of whether noun phrases in Slavic languages project a DP layer in spite of the lack of

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overt articles, which are typically considered to be prototypical realizations of D heads.

The crucial empirical observation I focus on is the obligatory presence of the particle *-kolwiek* in some free relatives and its optionality in others. The factor distinguishing the two kinds is the complexity of the *wh*-phrase heading the free relative.[1] Simple free relatives are those headed by simple *wh*-words such as *kto* 'who', *co* 'what', *gdzie* 'where', *kiedy* 'when', and *jak* 'how'.[2] Such relatives can be nominal, as shown in (1a–b), or adverbial in character, as shown in (1c–e), depending on the category of the *wh*-phrase.[3] In all of them, the presence of *-kolwiek* is optional. It affects interpretation but, crucially, not grammaticality.

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[1] For now, I use the term "headed" in a pre-theoretical sense to refer to the fact that there is no other potential head in such free relatives. I will justify it in section 3, where I argue that in Polish free relatives, *wh*-pronouns do indeed occupy the head position.

[2] Polish does not allow free relatives headed by the *wh*-word *dlaczego* 'why', as shown by the ungrammaticality of (i). This is quite a robust crosslinguistic fact (as shown, for example, by the ungrammaticality of (ii) in English, noted in Larson 1987). The reason behind this restriction is somewhat mysterious, especially given the fact that *why* can function as a relative pronoun in English, as shown in (iii).

(i) *Zrobię to *dlaczego(kolwiek)* Maria to zrobiła.
do$_{1SG.PRES}$ this$_{ACC}$ why(ever) Maria$_{NOM}$ this$_{ACC}$ do$_{3SG.F.PAST}$
'I will do this for the same reason Maria did this.'

(ii) *I will do it *why(ever)* Mary did it.

(iii) The reason *why* Mary left remains a mystery.

[3] Polish also has so-called light-headed relatives, illustrated in (i–v) below, which are sometimes assimilated to free relatives. In Citko 2004, however, I argued against such assimilation. One obvious reason has to do with the fact that, in addition to *wh*-pronouns, such relatives contain demonstrative heads.

(i) Zatrudnimy *tego, kogo* nam polecisz.
employ$_{1PL.PRES}$ this$_{ACC}$ who$_{ACC}$ us$_{DAT}$ recommend$_{2SG.PRES}$
'We will employ the one you recommend to us.'

(ii) Czytam *to, co* mi wpadnie w rękę.
read$_{1SG.PRES}$ this$_{ACC}$ what$_{NOM}$ me$_{DAT}$ fall$_{3SG.PRES}$ in hand
'I read what I can get my hands on.'

(iii) Pojedziemy *tam, gdzie* jest ładna pogoda.
go$_{1PL.PRES}$ there where is nice$_{NOM}$ weather$_{NOM}$
'We will go where the weather is nice.'

(1) a. Zatrudnimy *kogo(kolwiek)* nam polecisz.
employ$_{1PL.PRES}$ who(ever)$_{ACC}$ us$_{DAT}$ recommend$_{2SG.PRES}$
'We will hire whoever you recommend to us.'

b. Czytam *co(kolwiek)* mi wpadnie w rękę.
read$_{1SG.PRES}$ what(ever)$_{ACC}$ me$_{DAT}$ fall$_{3SG.PRES}$ in hand
'I read whatever I can get my hands on.'

c. Pojedziemy *gdzie(kolwiek)* jest ładna pogoda.
go$_{1PL.PRES}$ where(ever) is nice$_{NOM}$ weather$_{NOM}$
'We will go wherever the weather is nice.'

d. Przyślę Ci ten artykuł *kiedy(kolwiek)* go skończę.
send$_{1SG.PRES}$ you$_{DAT}$ this$_{ACC}$ article$_{ACC}$ when(ever) it$_{ACC}$ finish$_{1SG.PRES}$
'I will send you this article whenever I finish it.'

e. Zbudujemy ten dom *jak(kolwiek)* projektant nam każe.
build$_{1PL.PRES}$ this$_{ACC}$ house$_{ACC}$ how(ever) designer$_{NOM}$ us$_{DAT}$ tell$_{3SG.PRES}$
'We will build this house however the designer tells us to.'

Complex free relatives differ from simple ones in that they are headed by more complex *wh*-phrases, consisting of a *wh*-element followed by a noun, adjective, or adverb. For lack of a better term, I will refer to *wh*-elements in complex free relatives as *wh*-modifiers; they are *wh*-words and they modify other categories. Some illustrative examples are given in (2a–d). The free relatives in (2a–c) are nominal whereas the one in (2d) is adverbial. What is interesting about all complex free relatives—irrespective of their category—and what distinguishes them from sim-

(iv) Przyślę Ci ten artykuł *wtedy, kiedy* go skończę.
send$_{1SG.PRES}$ you$_{DAT}$ this$_{ACC}$ article$_{ACC}$ then when it$_{ACC}$ finish$_{1SG.PRES}$
'I will send you this article when I finish it.'

(v) Zrobię to *tak, jak* mi pokazałaś.
do$_{1SG.PRES}$ this$_{ACC}$ DEM how me$_{DAT}$ show$_{2SG.PRES}$
'I will do this the way you showed me.'

ple free relatives given in (1a–e) above is the fact that the particle *-kolwiek* is obligatory.[4]

(2) a. Przeczytam *które*(kolwiek)* *książki* mi
read$_{1SG.PRES}$ which(ever)$_{ACC}$ books$_{ACC}$ me$_{DAT}$
polecisz.
recommend$_{2SG.PRES}$
'I will read whichever books you recommend to me.'

b. Przeczytam *jakie*(kolwiek)* *książki* mi
read$_{1SG.PRES}$ what(ever)$_{ACC}$ books$_{ACC}$ me$_{DAT}$
polecisz.
recommend$_{2SG.PRES}$
'I will read whatever books you recommend to me.'

c. Przeczytam *czyje*(kolwiek)* *książki* mi
read$_{1SG.PRES}$ whose(ever)$_{ACC}$ books$_{ACC}$ me$_{DAT}$
polecisz.
recommend$_{2SG.PRES}$
'I will read whosever books you recommend to me.'

d. Pobiegnę jak**(kolwiek)* szybko muszę, żeby
run$_{1SG.PRES}$ how(ever) quickly must$_{1SG.PRES}$ in-order-to
pobić rekord.
break$_{INF}$ record$_{ACC}$
'I will run however quickly I have to in order to break the record.'

Interestingly, complex free relatives involving the *wh*-word *ile* 'how many/how much' do not seem to be subject to this requirement, as shown by the grammatical status of the examples in (3a–b). While such free relatives are not perfect, perhaps due to the existence of full-fledged headed amount relatives given in (4a–b), they are markedly better than complex free relatives involving other *wh*-modifiers.

[4] I first noted this fact in Citko 2009 but did not provide an account of it.

(3) a. ?Kupię *ile* *książek* mi sprzedasz.
buy$_{1SG.PRES}$ how-many books$_{GEN}$ me$_{DAT}$ sell$_{2SG.PRES}$
'I will buy how many books you sell me.'

b. ?Wypiję *ile* *wina* zostało
drink$_{1SG.PRES}$ how-much wine$_{GEN}$ be-left$_{3SG.N.PAST}$
w butelce.
in bottle
'I will drink however much wine was left in the bottle.'

(4) a. Kupię *tyle* *książek,* *ile* mi
buy$_{1SG.PRES}$ that-many books$_{GEN}$ how-many me$_{DAT}$
sprzedasz.
sell$_{2SG.PRES}$
'I will buy as many books as you can sell me.'

b. Wypiję *tyle* *wina,* *ile*
drink$_{1SG.PRES}$ that-much wine$_{GEN}$ how-much
zostało w butelce.
be-left$_{3SG.N.PAST}$ in bottle
'I will drink the amount of wine that is left in the bottle.'

My main goal in this paper is to explain why *-kolwiek* is obligatory in (most) complex free relatives but optional in simple ones. In the process of answering this question, I also address the following (more specific) questions: (i) Is this requirement syntactic or semantic in nature? (ii) Why do complex free relatives with *ile* 'how much/how many' behave differently? (iii) What is the contribution of *-kolwiek* to the interpretation of free relatives? (iv) What does this requirement tell us about the structure of *wh*-words in free relatives? and finally, (v) What does this requirement tell us about the structure of noun phrases in Polish (perhaps Slavic languages more generally)?

I proceed as follows. In section 2 I offer a brief crosslinguistic perspective which shows that the obligatory presence of *-kolwiek* is not a quirk of Polish (although the specifics of this requirement can vary from language to language). In section 3 I summarize previous approaches, both syntactic and semantic, and explain why an alternative is called for. In section 4 I present such an alternative, relying on the

positive setting of the DP parameter for Polish. In this section, I also tackle the question of why free relatives headed by *ile* 'how many/how much' behave differently with respect to the presence of *-kolwiek*, and derive this difference from independently motivated differences between the *wh*-word *ile* and other *wh*-words in Polish. In section 5 I provide a brief conclusion.

2. Crosslinguistic Perspective

The requirement that complex free relatives require *ever* is not unique to Polish. We find similar effects in other languages, both Slavic and non-Slavic. To illustrate briefly, (5) shows a similar effect in Croatian; *god* 'ever' is obligatory in complex free relatives.

(5) Petar će kupiti *koji* **(god)* *auto* Ivan prodaje.
Petar will buy which$_{ACC}$ ever car$_{ACC}$ Ivan sells
'Petar will buy whichever car Ivan is selling.' *Croatian*
(Gračanin-Yüksek, p.c.)

And the examples in (6a–b) illustrate the obligatory presence of *ever* in English free relatives:

(6) a. John will execute *what*(ever) order* Mary gives him.
b. I will accept *what*(ever) mission* you entrust me with.
(Grosu 1996: 261)

This effect is also not limited to nominal free relatives. Complex non-nominal free relatives in English also require *ever*:

(7) a. I can drive *however slowly* you want me to.
b. *I can drive *how slowly* you want me to.

(8) a. I am sure he will grow *however tall* his father was.
b. *I am sure he will grow *how tall* his father was.

(9) a. ?I am sure that my dad will pay for *whosever/whoever's car* I damage.

b. *I am sure that my dad will pay for *whose car* I damage.

(Caponigro 2003: 115)

Upon closer consideration, however, some differences do emerge between English and Polish complex free relatives. First, in English only complex free relatives headed by singular nouns require *ever.* Free relatives with plural nouns are grammatical without *ever*, as shown in (10a–b).

(10) a. John will execute *what orders* Mary gives him.

b. I will accept *what missions* you entrust me with.

Second, free relatives headed by mass nouns also do not require *ever*:

(11) I will drink *what wine* is left in the bottle.

A complete paradigm is given in (12a–d). The crucial contrast to keep in mind is between the ungrammatical example in (12a), involving a singular noun and no *ever*, and the grammatical examples in (12b–d), involving a mass noun, a plural noun, and no noun at all.[5]

(12) a. ??I read *what book* John wrote. *singular noun*

b. I read *what poetry* John wrote. *mass noun*

c. I read *what books* John wrote. *plural noun*

d. I read *what* John wrote. *no noun*

(Tredinnick 2005: 129)

No such contrast is found in Polish. The particle *-kolwiek* is required irrespective of the nature of the noun. In other words, complex free relatives involving plural or mass nouns also require *-kolwiek*, as shown in (13a) and (13b), respectively.

[5] Even though Tredinnick (2005) marks (12a) with two question marks (rather than a star), it is clear from her discussion that she considers such free relatives to be ungrammatical.

(13) a. Jan musi skończyć *jakie*(kolwiek)*
Jan$_{NOM}$ must$_{3SG.PRES}$ finish$_{INF}$ what(ever)$_{ACC}$
zadania Maria mu zadała.
assignments$_{ACC}$ Maria$_{NOM}$ him$_{DAT}$ assign$_{3SG.F.PAST}$
'Jan must finish what assignments Maria gave him.'

b. Wypiję *jakie*(kolwiek) wino* zostało w butelce.
drink$_{1SG.PRES}$ what(ever)$_{ACC}$ wine$_{ACC}$ stay$_{3SG.N.PAST}$ in bottle
'I will drink what wine is left in the bottle.'

The obligatory presence of *ever* in complex free relatives has also been noted in Italian (by Caponigro 2003 and Donati 2006, among others). The ungrammatical *a* examples below involve complex free relatives without *-unque* 'ever', whereas the grammatical *b* examples involve corresponding relatives containing *-unque*.

(14) a. *Ho mangiato *quanti biscotti* hai preparato.
have$_{1SG}$ eaten how-many cookies have$_{2SG}$ prepared
'I have eaten what cookies you have prepared.'
(Donati 2006: 32)

b. Mangerò *qualunque biscotto* preparerai.
eat$_{1SG.FUT}$ whatever cookie prepare$_{2SG.FUT}$
'I will eat whatever cookie you will prepare.'
(Donati 2006: 41, fn. 10)

(15) a. *Comprerò *quale libro* comprerai tu.
read$_{1SG.FUT}$ which book buy$_{2SG.FUT}$ you
(Lit. 'I'll buy which book you buy.')

b. Comprerò *qualunque libro* comprerai tu.
buy$_{1SG.FUT}$ whichever book buy$_{2SG.FUT}$ you
'I'll buy whatever/whichever book you buy.'
(Caponigro 2003:132)

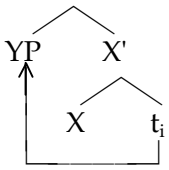
Now that we have seen that the obligatory presence of *ever* in complex free relatives is found in other languages besides Polish, we can begin to explore possible accounts. This is my main focus in the next section.

3. Previous Approaches

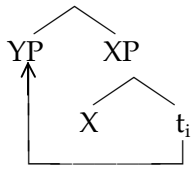
3.1. Syntactic Account: Complex Free Relatives as Headed Relatives

Donati (2006) accounts for the obligatory presence of *ever* in Italian complex free relatives by proposing that simple and complex free relatives involve very different structures and derivations. For simple free relatives she assumes a variant of the Head Account, in which the *wh*-pronoun undergoes movement to the head position.[6] Her proposal is couched in minimalist theory, in which movement is driven by the uninterpretable features of the Probe (see Chomsky 2001 and subsequent works). And typically, the Probe, not the Goal (the element underlying movement) is the one that projects, i.e., the one that determines the category of the new object, as shown in (16a). However, Donati departing from Chomsky argues and under certain circumstances, the Goal can also project, as shown in (16b).[7]

(16) a.



b.



[6] Broadly speaking, existing accounts of free relatives fall into two groups: those that assimilate free relatives to *wh*-questions and take the *wh*-pronoun to occupy the specifier of CP, as shown in (i) (Groos and van Riemsdijk 1981, Grosu 1996, 2003, among others) and those that assimilate free relatives to headed relatives and take the *wh*-pronoun to occupy the head position (Bresnan and Grimshaw 1978, Citko 2002, 2008, 2009, Larson 1998), as shown in (ii).

(i) $[_{DP}\,[_{CP}\,\mathbf{WH_i}\,[_{C'}\,C\,[_{TP}\,\ldots\,t_i\,\ldots]\,]\,]$ *Comp Account*

(ii) $[_{DP}\,\mathbf{WH_i}\,[_{CP}\,[_{C'}\,C\,[_{TP}\,\ldots\,t_i\,\ldots]\,]\,]$ *Head Account*

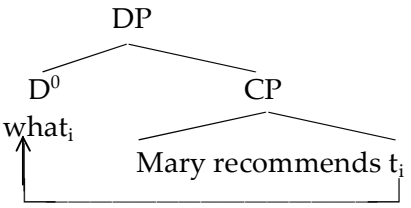
In prior research I have offered a number of arguments in favor of the Head Account, both for English (Citko 2002, 2008) and Polish (Citko 2009). Since my main goal in this paper is not to revisit this debate but, rather to analyze the internal structure of *wh*-words in free relatives, I will not review all the arguments in favor of (or against) the Head or the Comp Account and refer the interested reader to the works cited above for details.

[7] In Citko 2008 I also argued in favor of this option, among other non-standard labeling options.

For Donati the Goal can project as long as it is a head and not a phrase. This is what she proposes happens in simple free relatives such as the one in (17a). The *wh*-word *what* moves as a head and projects, as shown in (17b).[8]

(17) a. John reads what Mary recommends.

b.



Furthermore, Donati introduces the condition in (18) to ensure that projecting a Goal is only possible in free relatives. In *wh*-questions, which do not occupy nominal positions, the *wh*-head has to pied-pipe the entire *wh*-phrase, and the Probe has to project.[9]

(18) A simple *wh*-structure excludes pied-piping exactly in those cases in which it occurs in a nominal position. (Donati 2006: 33)

In complex free relatives the entire *wh*-phrase moves, and consequently the Probe (i.e., the C head) has to project, as shown in (19b).[10] This explains the ungrammaticality of (19a). The subcategorization requirements of the verb *read* are not met; *read* takes a DP, not a CP, as its complement.

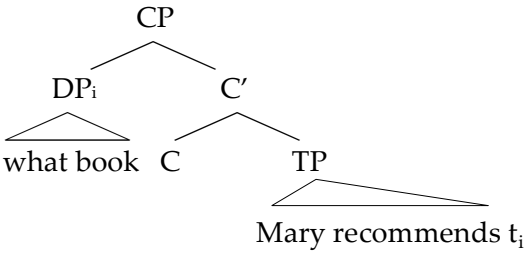
[8] The idea that in free relatives the moving *wh*-phrase projects (thus determining the category of the *wh*-phrase) was first proposed by Larson (1998) (see also Bury 2003 and Citko 2008 for different implementations of the same basic idea). What distinguishes these proposals from Donati's is that all free relatives (simple and complex alike) involve a Project Goal derivation.

[9] Note that Donati's condition also excludes a Project Goal derivation for simple free relatives headed by non-nominal *wh*-words (*where, when, how*). It is not clear that this is a welcome result.

[10] Pied-piping is forced in free relatives, as movement of just the *wh*-head would lead to a violation of the Left Branch Condition.

(19) a. *John reads *what book* Mary recommends.

b.



While the conflict in subcategorization requirements can explain the ungrammaticality of (19a), it will not extend to other cases. We have seen above that English allows complex free relatives with plural and mass nouns, such as the ones in (20a–b). These are predicted to be ungrammatical if they involve a derivation similar to the one schematized in (19b).

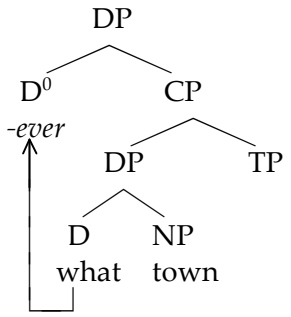
(20) a. John reads *what books* Mary recommends.
b. John drinks *what wine* Mary recommends.

Donati does not discuss such examples directly, but she does make a specific proposal about complex free relatives containing *ever* which could perhaps be extended to cover all complex free relatives, even the ones without *ever*. The fact that they cannot involve a Project Goal derivation leads her to conclude that only free relatives headed by simple *wh*-words are true free relatives. Free relatives headed by complex *wh*-phrases, irrespective of the presence or absence of *ever*, are what she dubs "headed relatives in disguise". *Ever* in such relatives is an external determiner, and *what* raises and head-adjoins to it, as shown in (21).[11]

In order to establish whether it is right to analyze complex free relatives (but not simple ones) as headed relatives, we first need to establish independent diagnostics to distinguish between headed and free relatives and then see whether, with respect to the same diagnostics, complex free relatives pattern with headed relatives or with free

[11] I also adopted such a structure in Citko 2004, without providing any justification for it.

(21)



(Donati 2006: 42)

relatives. In Citko 2008 I showed that with respect to three diagnostics (i.e., matching effects, compatibility with overt complementizers, and extraposition), complex free relatives pattern with simple free relatives rather than headed relatives. This parallelism is problematic if we assume that complex and simple free relatives involve different structures. Let me reproduce one argument here, involving the compatibility of free relatives with overt complementizers. As shown by the contrast between (22a) and (22b), simple free relatives differ from headed relatives in that they do not allow the complementizer *that*. The fact that complex free relatives pattern with simple free relatives rather than headed ones, as shown by the ungrammaticality of (22c), is problematic for the view that assimilates complex free relatives to headed relatives.

(22) a. I read the book *that* Chomsky wrote. *head relative*
b. *I read what *that* Chomsky wrote. *simple free relative*
c. *I read what books *that* Chomsky wrote. *complex free relative*

The idea that *ever* (and its equivalents in other languages) is a determiner is also somewhat problematic from a crosslinguistic perspective. There is no evidence that the Polish particle *-kolwiek* is a determiner, or that it historically developed from one. There are many hypotheses concerning the etymology of *-kolwiek*, none of which involves a determiner as the source. Błaszczak (2001), following Cieślikowa (1965), examines the following views:

(23) Etymology of *-kolwiek* (possible hypotheses)

a. *wiek* is related to Latin *aevum* , or *wie* corresponds to *-vě* from *věděti* (know).

b. *-kolwiek* is the extension of *-koli* with the suffix *-wie* (as in *ledwie* 'hardly') and the formative *-k*.

c. *-koli* derives from a pronominal root; the root *ko-* has been extended by with the particle *-li.*

d. *koli* could occur as an independent temporal pronominal adverb.

e. two different *-koli* with different origins and different meanings are assumed: (i) *koli* derived from the interrogative pronominal root plus *-li*, (ii) *-koli*, corresponding to Latin *-cunque,* derived from Old Indian adverb *khalu.* This adverb was used in the strengthening function since Rigveda times and did not have a concrete meaning.

(based on Błaszczak 2001: 418–19)

Błaszczak herself focuses on the meaning of *-kolwiek* (rather than its origin) and identifies two core components of its meaning, a concessive component and a disjunctive component. The concessive meaning seems particularly evident in so-called concessive conditionals such as in (24).

(24) Ilekolwiek książek byś nie przeczytał, nie
however-many $books_{GEN}$ $COND_{2SG}$ not $read_{SG.M.PAST}$ not
znajdziesz odpowiedzi na to pytanie.
$find_{2SG.PRES}$ $answer_{GEN}$ for $this_{ACC}$ $question_{ACC}$
'No matter how many books you read, you won't find an answer to this question.'

However, it is not clear whether the concessive interpretation in (24) is due to the presence of *-kolwiek* or to the combination of negation and the conditional particle *byś*. In Citko 2003 I argued that either of the two can yield a concessive interpretation. The examples in (25a–b) show that there are two ways to form concessive conditionals in Pol-

ish: one involving the combination of negation and conditional mood, and the other one involving the particle *-kolwiek*.[12]

(25) a. Ile książek *byś* *nie* przeczytał, nie
how-many $books_{GEN}$ $COND_{2SG}$ not $read_{SG.M.PAST}$ not
znajdziesz odpowiedzi na to pytanie.
$find_{2SG.PRES}$ $answer_{GEN}$ to $this_{ACC}$ $question_{ACC}$
'No matter how many books you read, you won't find an answer to this question.'

b. *Ilekolwiek* książek przeczytasz, nie znajdziesz
how-many $books_{GEN}$ $read_{2SG.PRES}$ not $find_{2SG.PRES}$
odpowiedzi na to pytanie.
$answer_{GEN}$ to $this_{ACC}$ $question_{ACC}$
'However many books you read, you won't an answer to this question.'

The upshot of the discussion in this section is that analyzing *ever* and its counterparts in other languages as a determiner does not explain why *ever* should be obligatory in complex free relatives, especially in languages like Polish, which lack overt articles. An alternative is thus called for. Before presenting an alternative, let me briefly dis-

[12] If the adjunct clause contains neither *-kolwiek* nor negation + conditional particle, as in (i), the result is ungrammatical. Furthermore, the ungrammaticality of both (ii) and (iii) shows that both negation and conditional mood have to be present for the concessive interpretation to be possible.

(i) *Ile książek przeczytasz, nie znajdziesz odpowiedzi na
how-many $books_{GEN}$ $read_{2SG.PRES}$ not $find_{2SG.PRES}$ $answer_{GEN}$ for
to pytanie.
$this_{ACC}$ $question_{ACC}$

(ii) *Ile książek nie przeczytasz, nie znajdziesz odpowiedzi na
how-many $books_{GEN}$ not $read_{2SG.PRES}$ not $find_{2SG.PRES}$ $answer_{GEN}$ for
to pytanie.
$this_{ACC}$ $question_{ACC}$

(iii) *Ile książek byś przeczytała, nie znajdziesz odpowiedzi
how-many $books_{GEN}$ $COND_{2SG}$ $read_{F.PAST}$ not $find_{2SG.PRES}$ $answer_{GEN}$
na to pytanie.
for $this_{ACC}$ $question_{ACC}$

cuss attempts to attribute the ungrammaticality of complex free relatives without *ever* (or *-kolwiek*) to semantic considerations. First, however, we need to establish what exactly *-kolwiek* contributes to the interpretation of the free relative. This is my main focus in the next section. To establish its contribution, I will use Polish data, even though the literature I am relying on focuses primarily on English.

3.2. Semantic Accounts

3.2.1. Semantic Contribution of *Ever*

A common (initial) intuition is to correlate the difference between free relatives with *ever* and those without *ever* with a distinction between a universal and a definite interpretation. On this view, due to Larson (1987) (see also Iatridou and Varlokosta 1995 and Tredinnick 2005 for a somewhat finer-grained approach), the free relative in (26a) (without *-kolwiek*) is definite because its most natural paraphrase is the one given in (27a), whereas the one in (26a) (with *-kolwiek*) is universal because its most natural paraphrase is the one in (27b).

(26) a. Zamówiłam *co* on zamówił na deser.
order$_{1SG.F.PAST}$ what$_{ACC}$ he order$_{3SG.M.PAST}$ for dessert
'I ordered what he ordered for dessert.'

b. Jan przeczyta *cokolwiek* Piotr zada.
John$_{NOM}$ read$_{3SG.PRES}$ whatever$_{ACC}$ Peter$_{NOM}$ assign$_{3SG.PRES}$
'John will read whatever Peter assigns.'

(27) a. I ordered the thing he ordered for dessert.

b. John will read everything/anything Peter assigns.

In spite of its intuitive appeal, there are problems with the correlation between the presence of *ever* and universal interpretation. Jacobson (1995) notes that this correlation breaks down in both directions. First, there are free relatives without *ever* that can have a universal interpretation. The free relative given in (28) is a good example. It is most naturally understood to mean 'Do everything the nanny tells you to do', not 'Do the thing the nanny tells you to do.'

(28) Rób *co* ci niania każe.
do$_{IMPER}$ what$_{ACC}$ you$_{DAT}$ nanny$_{NOM}$ order$_{3SG.PRES}$
'Do what the nanny tells you.'

Second, there are free relatives with *ever* which are *not* interpreted as universals. An example is given in (29). In such cases *ever* contributes ignorance or indifference on the part of the speaker, not universal quantification.[13]

(29) Jan wziął *cokolwiek* było na stole,
Jan$_{NOM}$ take$_{3SG.M.PAST}$ whatever$_{ACC}$ be$_{3SG.N.PAST}$ on table
bo potrzebował podstawkę.
because need$_{3SG.M.PAST}$ bookend$_{ACC}$
'Jan took whatever was on the table because he needed a bookend.'

Another argument against treating free relatives with *ever* as universals, also due to Jacobson (1995), comes from the fact that *whatever* does not allow the same modifiers as universal noun phrases. For example, *prawie* 'almost' can modify *wszystko* 'everything' but not *cokolwiek* 'whatever'.

(30) a. Jan czyta *prawie wszystko,* co Maria
Jan$_{NOM}$ read$_{3SG.PRES}$ almost everything$_{ACC}$ COMP Maria$_{NOM}$
czyta.
read$_{3SG.PRES}$
'Jan reads almost everything Maria reads.'

b. *Jan czyta *prawie cokolwiek* Maria
Jan$_{NOM}$ read$_{3SG.PRES}$ almost whatever$_{ACC}$ Maria$_{NOM}$
czyta.
read$_{3SG.PRES}$

[13] This example is loosely modeled on the following example from Tredinnick:

(i) Bill grabbed whatever was on the desk… namely a stapler.
(Tredinnik 2005: 2)

This leads Jacobson (1995) to argue that free relatives with and without *ever* have essentially the same interpretation, that of a unique maximal individual. The contribution of *ever* is similar to the contribution of *any*: both broaden the relevant domain of interpretation.

Dayal (1997), building on some of Jacobson's insights, distinguishes two readings of free relatives with *ever*. She refers to them as identity and free-choice readings, respectively, correlating the identity reading with uniqueness and the free-choice reading with genericity. The free-choice reading is the one that is often taken to be universal. The examples illustrating the two readings, modeled upon Dayal's English examples, are given in (31a–b). The free relative in (31a) refers to the particular dish Jan is cooking for dinner today (not to every dish Jan is cooking), whose precise identity the speaker is either not sure of or does not care about. The free relative in (31b), on the other hand, refers to anything (or everything) Apollo is showing.

(31) a. Cokolwiek Jan dzisiaj gotuje na obiad
whatever$_{ACC}$ Jan$_{NOM}$ today cook$_{3SG.PRES}$ for dinner
ma dużo czosnku. *identity*
have$_{3SG.PRES}$ plenty$_{ACC}$ garlic$_{GEN}$
'Whatever John is cooking for dinner tonight has plenty of garlic.'

b. Cokolwiek pokazują w kinie Apollo
whatever$_{ACC}$ show$_{3PL.PRES}$ in cinema Apollo
przyciąga dużo widzów. *free choice*
attract$_{3SG.PRES}$ plenty spectators$_{GEN}$
'Whatever Apollo shows attracts a lot of viewers.'

Facts of this sort lead Dayal to conclude that *ever* adds modality, not universal force, to the interpretation of the free relative. The technical details of Dayal's account are not directly relevant to us here. What matters is that both types of free relatives (the ones with *ever* and the ones without it) she interprets as definites. Furthermore, free relatives with *ever* are interpreted with respect to a set of alternatives to the actual world (i(dentity)-alternatives in her terms) and have to be true in all these alternative worlds. This is what yields the illusion of universal quantificational force. A slightly different view is taken by von

Fintel (2000), who modifies Dayal's account by abandoning the concept of i-alternatives, and builds uncertainty into the denotation of free relatives with *ever.* For him, the sentence in (31a), for example, presupposes that there are two worlds that differ with respect to what Jan is cooking and asserts that in all these worlds there is a lot of garlic in what Jan is cooking (von Fintel 2000: 30).

3.2.2. Obligatory Presence of *ever*

We saw above that *ever* contributes a modal dimension to the interpretation of the free relative (or, according to some accounts, uncertainty or universal quantificational force). This raises the question of whether we can use these insights about the interpretation of *ever* to explain the main empirical puzzle of this paper: the obligatory presence of *ever* in complex free relatives and its optional presence in simple free relatives. Since the difference between the two types of relatives lies in the (syntactic) complexity of the *wh*-phrase, it seems more plausible to seek a syntactic explanation instead. A semantic account would commit us to saying that complex free relatives require the extra modality contributed by *ever* but simple ones do not. Why this should be the case is not clear. This, however, does not imply that there are no cases for which a semantic explanation might be on the right track. Concessive conditionals, which I introduced briefly in the last section, are a good example. What is interesting about them is that *ever* (or *-kolwiek*) is also obligatory, as shown below.

(32) a. What*(ever) happens, we are going to Paris tomorrow.

b. Co*(kolwiek) się stanie, jedziemy jutro
what(ever)$_{NOM}$ REFL happen$_{3SG.PRES}$ go$_{1PL.PRES}$ tomorrow
do Paryża.
to Paris$_{GEN}$
'Whatever happens, we are going to Paris tomorrow.'

However, it has been argued quite convincingly that these are not free relatives (most recently in Rawlins 2008), which suggests that whatever factors are responsible for the obligatory presence of *ever* in concessive conditionals are not at play in standard free relatives under consideration here. Syntactically speaking, concessive conditionals are

not nominal (in spite of the fact that they involve the *wh*-pronoun *co* 'what'). Semantically speaking, they yield a concessive, not a restrictive, interpretation. As we saw in the previous section, it is reasonable to attribute the concessive interpretation to the presence of *ever*, and consequently to attribute the obligatory presence of *ever* in concessive conditionals to semantic considerations. Since argument free relatives lack such an interpretation, such a semantic explanation cannot rule out complex free relatives without *ever*.

A different kind of semantic account is proposed by Caponigro (2003), who focusing on English and Italian attributes the ungrammaticality of the complex free relative in (33a) to a semantic type mismatch.

(33) a. *I'll buy *what book/which book you buy*.
b. I will buy *what you buy*.

What allows him to do so is the assumption that complex and simple free relatives have different denotations. Thus, a complex free relative denotes a set of functions that applies to a set of individuals and returns an individual, as shown in (34a), whereas a simple one denotes a set of individuals, as shown in (34b).

(34) a. $[[\text{what/which}]_i$ Adam buys $[t_i$ book$]\ ] \rightarrow \lambda\ X_{1<et,e>}$ [buy $(X_1(\text{book})(a))]$
b. $[\text{what}_i$ Adam buys $t_i\ ] \rightarrow \lambda x_{1<e>}$ [buy $(x_1)(a))]$
(Caponigro 2003: 133)

The embedding predicate, such as *buy* in (33a–b), requires an individual, and neither simple nor complex free relatives denote individuals. Caponigro assumes the existence of a type-shifting strategy that can shift a set into an individual. However, there is no type-shifting strategy that can shift a set of functions into an individual. This is how he accounts for the contrast between (33a) and (33b). Note that (33a) becomes grammatical if *ever* is added (or if the free relative is headed by a plural or mass noun). It is not clear, however, what exactly *ever* does to fix the type mismatch. It would have to shift a set of functions to a set of individuals. This, however, is not the meaning typically associated with *ever*.

Yet another semantic explanation comes from Grosu (1996), who attributes the obligatory presence of *ever* to the properties of *what* in relative clauses. He suggests that *what* carries the implication that the set of individuals designated by the common noun has a (relatively) low and not precisely specified cardinality (Grosu 1996: 261). It is this property of the relative *what* that prevents it from combining with singular nouns, whose cardinality is fixed to one.[14]

More generally, it is not clear how the semantic accounts discussed in this section would explain crosslinguistic variation. We saw above that in English *ever* is only obligatory in complex free relatives headed by singular nouns, whereas in Polish *-kolwiek* is obligatory in all complex free relatives, irrespective of the nature of the noun involved.

Having shown why I think semantic accounts are not fully satisfactory, I turn to a syntactic account. However, the syntactic account I develop in the next section differs from the one I discounted in section 3.1 above in that it does not treat *ever* as a determiner generated outside the free relative. Instead, it generates *ever* inside the free relative as a topmost (quantificational) head of the (extended) noun phrase containing the *wh*-phrase and derives its obligatory presence from independently motivated assumptions about the nature of Slavic *wh*-words and the structure of free relatives.

4. Proposal

My answer to the question of why *-kolwiek* is obligatory in complex free relatives is purely syntactic. As it relies on several assumptions about the structure of Polish noun phrases, let me start by outlining these assumptions. First, I assume that Polish noun phrases project at least a DP layer. This is by no means uncontroversial in Slavic linguistics, where the issue of whether the DP Hypothesis is subject to parametric variation is hotly debated. The idea that it is indeed parametrized is referred to as the Parametrized DP Hypothesis. One formulation of it, due to Rappaport 2001, is given in (35).

[14] Note that Grosu has to allow for the existence of two lexical items *what*: the interrogative *what*, which is not subject to this restriction (as shown by the grammaticality of (i)), and the free relative *what*, which is.

(i) What book have you read?

(35) Parametrized DP Hypothesis

a. The presence/absence of a DP is a parameter of cross-linguistic variation.

b. A language with articles has the functional category D; a language without articles may not (weak form) or does not (strong form) have D's.

c. In the absence of a Determiner, possessives and demonstratives must be adjectival in category.

Proponents of the Parametrized DP Hypothesis, who argue that articleless Slavic languages lack a DP projection, include Bošković (2005, 2008, 2010), Bošković and Gajewski (to appear), Corver (1990, 1992), Kennedy and Merchant (2002), Uriagereka (1988), Zlatić (1997), among many others. Proponents of what we might call the Universal DP Hypothesis include Migdalski (2000), Pereltsvaig (2007), Progovac (1998), Rappaport (2001), Rutkowski (2002), and Rutkowski and Progovac (2005). Even though I will not be able to revisit all the arguments that have been advanced in the literature in favor of (and against) the DP Hypothesis in Slavic languages, I will side with the universalist camp on this issue.[15]

The three parts of the Parametrized DP Hypothesis given in (35) above are independent of each other. While it seems reasonable to correlate the lack of a DP layer with some independent morphological property of the language in question (or a gap in its lexicon, such as the lack of overt articles), the fact that possessives and demonstratives are adjectival in character does not necessarily imply the lack of a DP projection. In principle, nothing prevents demonstratives and possessives (and other types of DP internal modifiers) from being "adjectives in disguise" in a language with a DP projection. In other words, we

[15] Many existing accounts of left-branch extraction in Slavic languages capitalize on the fact that Slavic languages that allow left-branch extraction lack overt articles. If we appeal to subjacency, the grammaticality of left-branch extraction follows from the fact that only DPs are bounding nodes. Since Slavic languages lack DPs, they should tolerate violations of subjacency. However, this seems to predict, contrary to fact, that violations of the Complex NP Island should be tolerated as well:

(i) **Od czego*$_i$ zatrudniłaś człowieka, który jest ekspertem t_i?
from what$_{GEN}$ employ$_{2SG.F.PAST}$ man$_{ACC}$ which$_{NOM}$ is expert$_{INST}$
'What did you employ a man that is an expert at?'

cannot conclude that a language has no DPs from the fact that its possessives or demonstratives exhibit adjectival-like behavior.

What matters for our purposes is the status of the elements listed in (36a–c).

(36) który 'which'
czyj 'whose'
jaki 'what kind of'

They agree in case and phi-features (i.e., number, gender, and person features) with the nouns they modify, just as adjectives do:

(37) a. który / czyj / jaki samochód
which$_{3SG.M.NOM}$ / whose$_{3SG.M.NOM}$ / what$_{3SG.M.NOM}$ car$_{3SG.M.NOM}$
b. nowy samochód
new$_{3SG.M.NOM}$ car$_{3SG.M.NOM}$

(38) a. która / czyja / jaka książka
which$_{3SG.F.NOM}$ / whose$_{3SG.F.NOM}$ / what$_{3SG.F.NOM}$ book$_{3SG.F.NOM}$
b. nowa książka
new$_{3SG.F.NOM}$ book$_{3SG.F.NOM}$

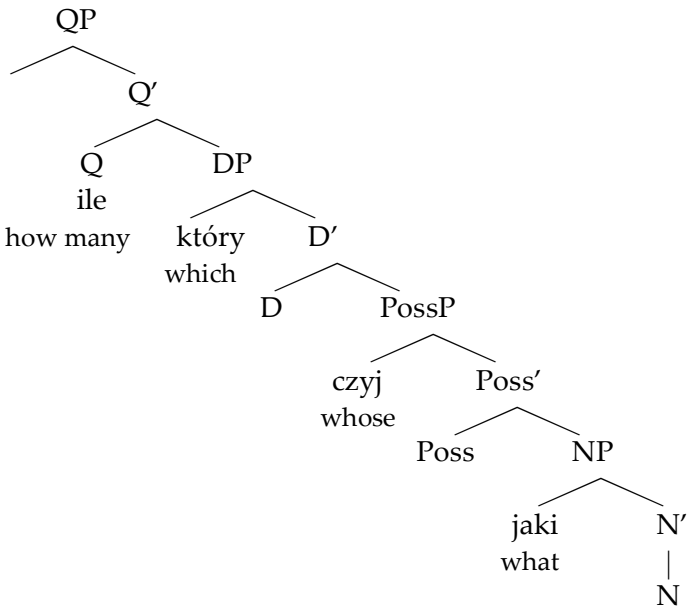
(39) a. które / czyje / jakie miasto
which$_{3SG.N.NOM}$ / whose$_{3SG.N.NOM}$ / what$_{3SG.N.NOM}$ town$_{3SG.N.NOM}$
b. nowe miasto
new$_{3SG.N.NOM}$ town$_{3SG.N.NOM}$

There are many views in the literature regarding the phrase-theoretical status of adjectives. Some researchers treat them as heads, others as specifiers, and yet others as adjuncts. In most accounts the ordering restrictions on adjectives come from the ordering of functional projections licensing these adjectives. The same considerations extend to the *wh*-modifiers under consideration here. I thus assume that *wh*-modifiers are licensed by separate functional projections in the extended projection of the noun. As my starting point, I take Rappaport's (2001) hierarchy of elements within a Polish noun phrase, given in (40) below.

(40) Quantifiers > Determiners > Possessors > Attributives > Nouns

I implement it as follows:

(41)



The structure in (41) departs from Rappaport's structure in two respects. First, I follow Scott (2002) and Cinque (1994), among others, and take adjectives (and consequently the *wh*-modifiers listed in (36a–c)) to occupy specifier rather than adjunct positions. This makes the agreement between the noun and its modifiers a reflex of a standard Spec-Head configuration. Second, I treat the quantifier *ile* 'how much/how many' as a head rather than a specifier for reasons that will become apparent shortly.

The evidence that the *wh*-modifiers under consideration here are phrases not heads comes from movement considerations.[16] If they were heads, we would expect them to be subject to the Head Movement Condition. This is not what we find. The data below show that they are subject to the same constraints as canonical instances of phrasal A-bar movements. This is illustrated in (42a–b) with respect to the *Wh*-Island Constraint, in (43a–b) with respect to the Coordinate

[16] This, however, will not help us decide whether they are adjuncts and specifiers.

Structure Constraint, in (44a–b) with respect to the Adjunct Condition, and in (45a–b) with respect to the Complex NP Island Constraint.[17]

(42) a. *Którą$_i$ Jan zastanawia się, kto
which$_{ACC}$ Jan$_{NOM}$ wonder$_{3SG.PRES}$ REFL who$_{NOM}$
przeczytał t_i książkę?
read$_{3SG.PAST}$ book$_{ACC}$
'(Lit. *Which book does Jan wonder who read?)'

b. *Którą *książkę*$_i$ Jan zastanawia się, kto
which$_{ACC}$ book$_{ACC}$ Jan$_{NOM}$ wonder$_{3SG.PRES}$ REFL who$_{NOM}$
przeczytał t_i?
read$_{3SG.PAST}$
'(Lit. *Which book does Jan wonder who read?)'

(43) a. *Jaką$_i$ Jan przeczytał t_i książkę i ten
what$_{ACC}$ Jan$_{NOM}$ read$_{3SG.PAST}$ book$_{ACC}$ and this$_{ACC}$
artykuł?
article$_{ACC}$
'(Lit. *What book did Jan read and this article?)'

b. *Jaką *książkę*$_i$ Jan przeczytał t_i i ten
what$_{ACC}$ book$_{ACC}$ Jan$_{NOM}$ read$_{3SG.PAST}$ and this$_{ACC}$
artykuł?
article$_{ACC}$
'(Lit. *What book did Jan read and this article?)'

(44) a. *Czyją$_i$ Jan skończył swoją recenzję po
whose$_{ACC}$ Jan$_{NOM}$ finish$_{3SG.PAST}$ REFL review$_{ACC}$ after
tym, jak przeczytał t_i książkę?
this how read$_{3SG.PAST}$ book$_{ACC}$
'(Lit. *Whose book did Jan finish his review after he read?)'

[17] A reviewer wonders if the ungrammaticality of the *a* examples in (42–45) is necessarily incompatible with the *wh*-elements being heads. They could be heads embedded within larger *wh*-constituents undergoing run-of-the-mill A-bar phrasal movement. This is certainly what happens in the *b* examples, but in the *a* examples there is no larger phrase that would not include the nominal.

(44) b. *Czyją *książkę*$_i$ Jan skończył swoją recenzję
whose$_{ACC}$ book$_{ACC}$ Jan$_{NOM}$ finish$_{3SG.PAST}$ REFL review$_{ACC}$
po tym, jak przeczytał t_i?
after that how read$_{3SG.PAST}$
'(Lit. *Whose book did Jan finish his review after he read?)'

(45) a. *Który$_i$ Jan dostał wiadomość, że
which$_{ACC}$ Jan$_{NOM}$ get$_{3SG.PAST}$ news$_{ACC}$ that
zostanie opublikowany t_i artykuł?
become$_{3SG.PRES}$ publish$_{PART}$ article$_{ACC}$
'(Lit. *Which article did Jan get the news that will be published?)'

b. *Który artykuł$_i$ Jan dostał wiadomość, że
which$_{ACC}$ article$_{ACC}$ Jan$_{NOM}$ get$_{3SG.PAST}$ news$_{ACC}$ that
zostanie opublikowany t_i?
become$_{3SG.PRES}$ publish$_{PART}$
'(Lit. *Which article did Jan get the news that will be published?)'

The second crucial aspect of my proposal concerns the difference in structure between *wh*-phrases in free relatives and *wh*-phrases in *wh*-questions. Even though the two are morphologically identical, the proposal I would like to make is that *wh*-pronouns in free relatives are subject to the additional requirement that their topmost nominal projection, which I take to be the Q head, is filled.[18] For lack of a better term, I will refer to this requirement as a Null Q Filter.[19]

(46) Null Q Filter: Q head has to be filled in free relatives.

[18] One question brought to my attention by one of the reviewers is whether the Q head has to be filled in any other constructions besides free relatives. I leave this question for future research.

[19] In principle, there are two ways to implement this distinction between free relatives and questions. We could either assume that both interrogative and free relative *wh*-pronouns are QPs (but that only the free relative Q head needs overt lexical material) or that only free relatives project a QP layer. Here, I take the former view.

Positing a filter of this kind might seem like a restatement of the fact, which is hardly an improvement over resting at the level of a descriptive generalization. However, there are reasons to believe the filter is indeed an improvement. For one thing, the filter applies to both simple and complex free relatives, whereas the descriptive generalization we are trying to capture concerns only complex free relatives.[20] With this as background, we can return to the main question I set out to answer in this paper, which is why only complex free relatives require *-kolwiek*. The contrast between simple and complex free relatives comes from the fact that the filter can be satisfied by two different mecha-

[20] A natural question that arises here is whether we can derive the obligatory presence of an overt element in Q from independent factors. One possibility is to link it to the interpretation of free relatives. If free relatives refer to maximal individuals, which implies the existence of a maximality operator (as argued, for example, in Rullmann 1995, Jacobson 1995, and Dayal 1997), and if Q is the site of the maximality operator, something akin to the Stranded Affix Filter could be used to ensure overt support for the maximality operator. However, this assumption might be problematic in light of the existence of free relatives that are not interpreted as maximal, which are discussed by Grosu (2003) and Caponigro (2001, 2003) and illustrated in (i–ii) with Polish examples. Caponigro dubs such relatives indefinite free relatives.

(i) Mam co czytać.
have$_{1SG.PRES}$ what$_{ACC}$ read$_{INF}$
'I have something to read.'

(ii) Mamy gdzie się przeprowadzić.
have$_{1PL.PRES}$ where REFL move$_{INF}$
'We have a place to move to.'

They are also found in other Slavic as well as non-Slavic languages (see Caponigro 2001 for examples and analysis). Grosu (1994) and Pancheva (2000), however, analyze such relatives as *wh*-interrogatives, which means that they are clausal rather than nominal. Besides the fact that they do not show maximality effects, they differ from standard free relatives in several respects. They do not require matching, as shown in (iii), they disallow complex *wh*-phrases, as shown in (iv), and they are incompatible with *-kolwiek,* as shown in (v).

(iii) Mam z kim iść na imprezę.
have$_{1SG.PRES}$ with whom go$_{INF}$ for party
'I have someone to go to the party with.'

(iv) *Mam jakie książki przeczytać.
have$_{1SG.PRES}$ what$_{ACC}$ books$_{ACC}$ read$_{INF}$

(v) *Mam cokolwiek przeczytać.
have$_{1SG.PRES}$ whatever$_{ACC}$ read$_{INF}$

nisms, and only one of these mechanisms is available in complex free relatives.

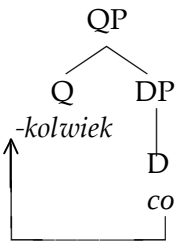
In principle there are two ways Q can be filled: either by lexical insertion or by movement (or, to use current minimalist terminology, either by External Merge or by Internal Merge). To preview, we will see that in complex free relatives the only way to fill the Q head is via lexical insertion (of *-kolwiek*). In simple free relatives, on the other hand, there are two ways Q can be filled: by movement or by lexical insertion.

Let us start with simple free relatives, in which, as we have seen above, *-kolwiek* is optional. A representative example is repeated below:

(47) Przeczytam *co(kolwiek)* mi polecisz.
read$_{1SG.PRES}$ what(ever)$_{ACC}$ me$_{DAT}$ recommend$_{2SG.PRES}$
'I will read what(ever) you recommend to me.'

I suggested above that the topmost nominal projection in a free relative *wh*-pronoun is Q and that it needs to be filled by an overt lexical item. One way to fill Q is simply by insertion of *-kolwiek*. If *-kolwiek* is in Q, the *wh*-pronoun *co* 'what', which starts out as a D head, head-adjoins to it, as shown in (48a). If Q is empty, the D head *co* 'what' moves to Q, as shown in (48b). Either way, the requirement that Q be filled is satisfied. The fact that there are two ways to satisfy it is what explains why *-kolwiek* is optional in simple free relatives.[21]

(48) a.



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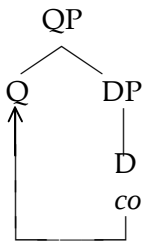


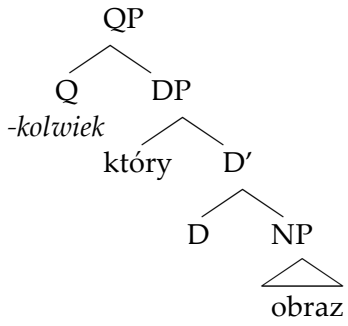
[21] I am not concerned here with the derivation of free relatives, only with the internal structure of the *wh*-words heading them.

In complex free relatives, on the other hand, in which *-kolwiek* is obligatory, as shown in (49), only the first option, namely lexical insertion, exists.

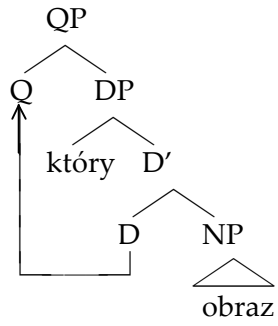
(49) Kupimy *który***(kolwiek)* *obraz* Jan nam sprzeda.
buy$_{1PL.PRES}$ which(ever)$_{ACC}$ painting$_{ACC}$ Jan$_{NOM}$ us$_{DAT}$ sell$_{3SG.PRES}$
'We will buy whichever painting Jan sells us.'

The reason has to do with the phrase-theoretical status of the *wh*-word *który* 'which'. I argued above that *wh*-modifiers like *który* 'which', *jaki* 'what', and *czyj* 'whose' occupy specifier, not head (or adjunct), positions. More specifically, *który* occupies the specifier of DP. Since D is empty, D to Q movement is not going to satisfy the Null Q Filter. Thus the only way to satisfy the filter is via insertion of *-kolwiek* in Q, as shown in (50a).

(50) a.



b. *



There are two questions that one might ask here. One is how the *wh*-modifier *który* and the particle *-kolwiek* become a unit in (50a), and the other is why the noun itself could not move first to D and then to Q, thus satisfying the Null Q Filter. Let me tackle the second question first. Generally speaking, N-to-D movement, which results in the noun preceding its adjectival modifiers, is quite limited in Polish. For example, it is possible in cases in which the adjective describes an intrinsic property of the noun, such as the ones illustrated in (51a–b). No such

intrinsic-property interpretation is available in (49), which suggests that there is no N to D raising.[22]

(51) a. język polski
language Polish
'the Polish language'

b. kraj ojczysty
country paternal
'the fatherland'

The second issue, that of how *-kolwiek* and *który* become a unit, can be resolved in the morphological component, where the particle *-kolwiek* can lower onto the *wh*-modifier *który*.

If the account developed here is on the right track, it is not the presence of the noun in a complex free relative but the specifier (versus head) status of the *wh*-element that determines whether *-kolwiek* is necessary. We can test this prediction in constructions involving null nouns. Polish, like other Slavic languages, allows null nouns, as shown in (52a), which are typically assumed to be licensed via agreement with their adjectival modifiers. The free relative in (52b) thus also involves a null noun, licensed by agreement with its *wh*-modifiers. And in such cases, *-kolwiek* is also required, which is what we expect if the D position is empty. The only way to satisfy the Null Q Filter is via insertion of *-kolwiek*.

(52) a. Przeczytałam nową.
read$_{1SG.F.PAST}$ new$_{3SG.F.ACC}$
'I read the new one.'

[22] Another argument for N-to-D raising in Polish, brought to my attention by one of the reviewers, comes from the existence of the so-called genitival adjectives, discussed by Willim (1999) and illustrated in (i).

(i) ojcowe buty
father$_{POSS.PL}$ shoes
'father's shoes'

(52) b. Przeczytałam *którą*(kolwiek)* / *jaką*(kolwiek)* /
read$_{1SG.F.PAST}$ which(ever)$_{3SG.F.ACC}$ what(ever)$_{3SG.F.ACC}$
czyją(kolwiek)* mi poleciłaś.
whose(ever)$_{3SG.F.ACC}$ me$_{DAT}$ recommend$_{2SG.F.PAST}$
'I read whichever one/whatever one/whosever one you recommend to me.'

The last issue I want to consider in this paper is the status of the *wh*-word *ile* 'how many'/'how much', and more generally the behavior of complex free relatives involving *ile*. We saw above that such relatives do not require *-kolwiek*. The *wh*-word *ile* also differs from the remaining *wh*-modifiers (*który* 'which', *czyj* 'whose', *jaki* 'what') with respect to case, agreement, and cooccurrence restrictions. We saw above that these modifiers agree with the nouns they modify in case, person, number, and gender, as shown in (53a–b). (53a) involves a fronted object (bearing accusative case), and (57b) a fronted subject (bearing nominative case).

(53) a. *Którą* / *czyją* / *jaką* *książkę*$_i$
which$_{3SG.F.ACC}$ / whose$_{3SG.F.ACC}$ / what$_{3SG.F.ACC}$ book$_{3SG.F.ACC}$
przeczytałaś t_i?
read$_{2SG.F.PAST}$
'Which/whose/what book have you read?'

b. *Która* / *czyja* / *jaka* *książka*$_i$ t_i
which$_{3SG.F.NOM}$ / whose$_{3SG.F.NOM}$ / what$_{3SG.F.NOM}$ book$_{3SG.F.NOM}$
jest na stole?
is on table
'Which/whose/what book is on the table?

The quantifier *ile* 'how much'/'how many', on the other hand, does not agree with the noun it modifies in analogous environments. Instead, it assigns genitive case to the noun in structural case positions and agrees with it in non-structural case positions. This is illustrated by the contrast between the examples in (54a–b) and the ones in (55a–b). In (54a–b), the noun bears genitive case, as the *wh*-phrase 'how many books' moves from a position in which it gets accusative and nominative case, respectively. In (55a–b), on the other hand, both *ile* and

książki 'books' are marked with the same non-structural case, dative in (55a) and instrumental in (55b).

(54) a. *Ile* *książek*$_i$ przeczytałaś t_i?
how-many$_{ACC}$ books$_{GEN}$ read$_{2SG.F.PAST}$
'How many books have you read?'

b. *Ile* *książek*$_i$ t_i jest na stole?
how-many$_{NOM}$ books$_{GEN}$ is on table
'How many books are there on the table?'

(55) a. *Ilu* *studentom*$_i$ zadałaś t_i ten artykuł?
how-many$_{DAT}$ students$_{DAT}$ assign$_{2SG.F.PAST}$ this$_{ACC}$ article$_{ACC}$
'How many students did you assign this article to?'

b. *Iloma* *zakładami*$_i$ Maria kieruje t_i?
how-many$_{INST}$ factories$_{INST}$ Maria$_{NOM}$ direct$_{3SG.PRES}$
'How many factories does Maria manage?'

The second difference between *ile* and the remaining *wh*-modifiers concerns verb agreement. With *ile* as the subject, the verb is singular, as shown in (56a), in spite of the noun *książki* 'books' being plural. With all the other *wh*-modifiers, agreement is plural, as shown in (56b). This is what we would expect if agreement is determined by the noun.

(56) a. *Ile* *książek* jest/ *są na stole?
how-many$_{NOM}$ books$_{GEN}$ is/ are on table
'How many books are there on the table?'

b. *Które / czyje / jakie* *książki* są/ *jest
which$_{NOM}$ / whose$_{NOM}$ / what$_{NOM}$ books$_{NOM}$ are/ is
na stole?
on table
'Which/whose/what are there on the table?'

The third difference between *ile* and the remaining *wh*-modifiers concerns cooccurrence restrictions. *Ile* can cooccur with any of the remaining three *wh*-modifiers, as shown in (57a). These remaining three

wh-modifiers, however, cannot cooccur with each other, as shown by the ungrammaticality of the examples in (57b–d).[23]

(57) a. *Ile* *czyich* / *których* / *jakich* *książek*$_i$
how-many$_{ACC}$ whose$_{GEN}$ / which$_{GEN}$ / what$_{GEN}$ books$_{GEN}$
przeczytałaś t_i?
read$_{2SG.F.PAST}$
'How many of whose/which/what books have you read?'

b. **Które* *jakie* *książki*$_i$ przeczytałaś t_i?
which$_{ACC}$ what$_{ACC}$ books$_{ACC}$ read$_{2SG.F.PAST}$

c. **Czyje* *jakie* *książki*$_i$ przeczytałaś t_i?
whose$_{ACC}$ what$_{ACC}$ books$_{ACC}$ read$_{2SG.F.PAST}$

d. **Które* *czyje* *książki*$_i$ przeczytałaś t_i?
which$_{ACC}$ whose$_{ACC}$ books$_{ACC}$ read$_{2SG.F.PAST}$

Ile typically precedes other *wh*-modifiers; the opposite ordering, in which it follows them, is possible but marked. The fact that *ile* still assigns genitive case to them suggests that the basic ordering is the one in (57a) and (58) is a result of scrambling.

(58) *Czyich* / *których* / *jakich* *ile* *książek*$_i$
whose$_{GEN}$ / which$_{GEN}$ / what$_{GEN}$ how-many$_{ACC}$ books$_{GEN}$
przeczytałaś t_i?
read$_{2SG.F.PAST}$
'How many whose/which/what books have you read?'

The behavior of *ile* thus shows that it is different from all the other *wh*-modifiers under consideration here. The most straightforward way to account for this difference is to assume that *ile* occupies a higher position and that this position is a head not a specifier. This would explain why it can cooccur with other *wh*-modifiers and why it precedes them.

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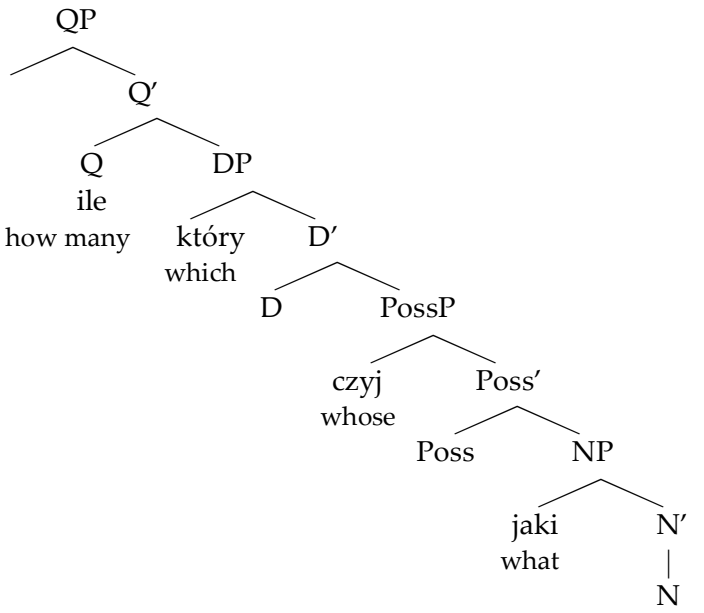
[23] These two modifiers can only cooccur if they are coordinated:

(i) *Czyje* *i* *jakie* *książki*$_i$ przeczytałaś t_i?
whose$_{ACC}$ and what$_{ACC}$ books$_{ACC}$ read$_{2SG.F.PAST}$

(ii) *Które* *i* *czyje* *książki*$_i$ przeczytałaś t_i?
which$_{ACC}$ and whose$_{ACC}$ books$_{ACC}$ read$_{2SG.F.PAST}$

The fact that *ile* is a head explains its case-assignment abilities. It is a straightforward instantiation of a GEN(Q) (genitive of quantification) head. This assumption about the nature of *ile* leads to the following structure for Polish noun phrases:

(59)



The distinction between *ile* and other *wh*-modifiers posited here mirrors the distinction between two types of numerals in Polish. Rutkowski (2002) and Rutkowski and Maliszewska (2004) distinguish two types of numerals in Polish, which they refer to as A-numerals and Q-numerals, respectively. The numeral *dwa* 'two' belongs to the former class, whereas *pięć* 'five' belongs to the latter. A-numerals agree with their nouns and Q-numerals assign genitive case to them. To explain these differences they treat A-numerals as specifiers, and Q-numerals as heads of QP. The behavior of *ile* 'how many' thus parallels the behavior of Q-numerals, whereas the behavior of *który*, *czyj*, and *jaki* parallels the behavior of A-numerals.

(60) a. Dwie aktorki umiały pływać.
two$_{NOM}$ actresses$_{NOM}$ could$_{PL.NONVIR}$ swim$_{INF}$
'Two actresses could swim.'

(60) b. Pięć aktorek umiało pływać.
five$_{NOM}$ actresses$_{GEN}$ could$_{SG.N}$ swim$_{INF}$
'Five actresses could swim.'
(Rutkowski and Maliszewska 2004: 269)

The claim that *ile* is a head occupying the Q position can also explain why complex free relatives with *ile* are fine without *-kolwiek*. The relevant examples are repeated in (61a–b).

(61) a. ?Kupię *ile* *książek* mi sprzedasz.
buy$_{1SG.PRES}$ how-many$_{ACC}$ books$_{GEN}$ me$_{DAT}$ sell$_{2SG.PRES}$
'I will buy however many books you sell me.'

b. ?Wypiję *ile* *wina* zostało
drink$_{1SG.PRES}$ how-much$_{ACC}$ wine$_{GEN}$ remain$_{3SG.N.PAST}$
w butelce.
in bottle
'I will drink however much wine is left in the bottle.'

Since Q is filled by *ile,* the Null Q Filter is satisfied and there is no need for *-kolwiek.* When *-kolwiek* is present, it is simply adjoined to *ile*:[24]

(62) a. Kupię *ilekolwiek* *książek* mi sprzedasz.
buy$_{1SG.PRES}$ however-many$_{ACC}$ books$_{GEN}$ me$_{DAT}$ sell$_{2SG.PRES}$
'I will buy however many books you sell me.'

b. Wypiję *ilekolwiek* *wina* zostało
drink$_{1SG.PRES}$ however-much$_{ACC}$ wine$_{GEN}$ remain$_{3SG.N.PAST}$
w butelce.
in bottle
'I will drink however much wine is left in the bottle.'

[24] One of the anonymous reviewers wonders about the difference in interpretation between (61a–b) and (62a–b). The examples without *-kolwiek* lack the ignorance reading.

5. Conclusion

To conclude briefly, this paper suggested a solution to the puzzle concerning the distribution of the particle *-kolwiek* 'ever' in Polish free relatives. The puzzle concerned the obligatory presence of *-kolwiek* in complex free relatives. I argued against accounts that reduce this requirement to purely semantic considerations and proposed a syntactic explanation instead. It rested on independently motivated claims about the structure of Polish noun phrases and the derivation of Polish free relatives. The crucial innovation lay in the structure proposed for *wh*-phrases in free relatives. I argued that *wh*-phrases in free relatives have a more complex internal structure than *wh*-phrases in questions. In particular, they require their topmost projection, the Q head, to be filled by an overt element (perhaps in order to support the maximality operator). This requirement, which I referred to simply as the Null Q Filter, can be satisfied in two different ways in simple free relatives: by insertion of *-kolwiek* or by movement of the *wh*-pronoun from D to Q. In complex free relatives, on the other hand, it can only be satisfied via insertion of *-kolwiek* as the D position is empty. This is what explains the obligatory presence of *-kolwiek* in complex free relatives.

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