

Language and Logos

Studies in Theoretical and
Computational Linguistics

Thomas Hanneforth,
Gisbert Fanselow (Eds.)

studia grammatica

Herausgegeben von Manfred Bierwisch

unter Mitwirkung von

Hubert Haider, Stuttgart

Paul Kiparsky, Stanford

Angelika Kratzer, Amherst

Jürgen Kunze, Berlin

David Pesetsky, Cambridge (Massachusetts)

Dieter Wunderlich, Düsseldorf

studia grammatica 72

**Thomas Hanneforth,
Gisbert Fanselow
(Eds.)**

Language and Logos

**Studies in Theoretical and
Computational Linguistics**



Akademie Verlag

Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.

ISBN 978-3-05-004931-1

ISSN 0081-6469

© Akademie Verlag GmbH, Berlin 2010

Das eingesetzte Papier ist alterungsbeständig nach DIN/ISO 9706.

Alle Rechte, insbesondere die der Übersetzung in andere Sprachen, vorbehalten. Kein Teil des Buches darf ohne Genehmigung des Verlages in irgendeiner Form – durch Fotokopie, Mikroverfilmung oder irgendein anderes Verfahren – reproduziert oder in eine von Maschinen, insbesondere von Datenverarbeitungsmaschinen, verwendbare Sprache übertragen oder übersetzt werden.

All rights reserved (including those of translation into other languages). No part of this book may be reproduced in any form – by photoprinting, microfilm, or any other means – nor transmitted or translated into a machine language without written permission from the publishers.

Druck: Books on Demand, Norderstedt

Printed in the Federal Republic of Germany

**Festschrift for Peter Staudacher
on his 70th Birthday**

CONTENTS

Preface	
<i>“Ich muss keinen mehr beeindrucken”</i>	9
 I Syntax	 15
Joanna Błaszczak	
<i>A Spurious Genitive Puzzle in Polish</i>	17
Gisbert Fanselow	
<i>Semantic Type Effects on Crossing Movement in German</i>	48
Sascha W. Felix	
<i>Me and Chomsky</i>	64
Günther Grewendorf	
<i>On the Typology of Verb Second</i>	72
Gereon Müller	
<i>Movement from Verb-Second Clauses Revisited</i>	97
Andreas Pankau, Craig Thiersch, Kay-Michael Würzner	
<i>Spurious Ambiguities and the Parentheticals Debate</i>	129
 II Semantics	 147
Christian Ebert, Cornelia Ebert	
<i>On Squeamishness of the Royal Kind</i>	149
Caroline Féry	
<i>Information Structure of schon</i>	160

Stefan Hinterwimmer	
<i>When-Clauses, Factive Verbs and Correlates</i>	176
Gerhard Jäger	
<i>The Proof Theory of Partial Variables</i>	190
Marcus Kracht	
<i>Brentano's Apple</i>	202
Manfred Krifka	
<i>How to Interpret "Expletive" Negation</i> <i>under bevor in German</i>	214
Wolfgang Sternefeld	
<i>Wide Scope in situ</i>	237
Thomas Ede Zimmermann	
<i>What it Takes to be Missing</i>	255
 III Automata Theory	 267
Jörg Didakowski	
<i>Robust Parsing as a Constraint Optimization Problem</i> <i>within a Finite-state Approach</i>	269
Thomas Hanneforth, Colin de la Higuera	
<i>ε-Removal by Loop Reduction for Finite-state Automata</i>	297
Bryan Jurish	
<i>Efficient Online k-Best Lookup</i> <i>in Weighted Finite-State Cascades</i>	313
Daniel Quernheim	
<i>Tomita's Algorithm Revisited</i>	328
 IV Mathematical Linguistics	 337
Hans-Martin Gärtner, Jens Michaelis	
<i>On the Treatment of Multiple-Wh-Interrogatives in MGs</i>	339
Uwe Mönnich	
<i>Some Remarks on Mildly Context-Sensitive Copying</i>	367

V Computational Linguistics 391**Damir Ćavar***On Statistical Metrics for Selection and Phrasality* 393**Christian Wartena***Testing the Distributional Hypothesis for**Collaborative Tagging Systems* 407**VI Classical Studies 417****Herbert E. Brekle***Herstellungstechniken von Inschriften auf römischen**Wasserleitungsrohren aus Blei* 419

Preface

“Ich muss keinen mehr beeindrucken”

1. Hot summer days

Roughly a generation ago, one of the two editors of this book (Gisbert) sat in a class taught by Peter Staudacher. It was a hot summer afternoon, with many teachers sitting with their students on the meadows of Regensburg’s university campus, holding their seminars there. The co-editor suggested to Peter Staudacher that his class should do the same, which was objected to on the ground that teaching in the course required a blackboard. The co-editor pointed out that one could very well carry the blackboard from the classroom to the meadows, and Peter replied “Ich bin schon verheiratet. Ich muss keinen mehr beeindrucken” (I am already married. I do not have to impress anyone anymore).

The co-editor does not know why he recalls this incident so vividly. Perhaps, the answer simply is that human memory in fact records everything, and the only issue always is if and how the stored information can be retrieved. But, in any event, we think that the sentence “I do not have to impress anyone” perfectly characterizes Peter Staudacher scientific and personal approach. He is the perfect example of unpretentiousness combined with wisdom and scientific rigor. Therefore, while Peter never attempted to impress anyone, he in fact has impressed so many, some of which contribute to this volume in order to honor this outstanding scientist, and to say “thank you” for all they got from him. Many more could have contributed but do not appear here, simply because of limitations of space (and deadlines).

2. Edutainment

When a major German university recently tried to fill a linguistics professorship and when it came to praising the top candidate in the official search committee’s report, the candidate’s innovative concept of academic teaching was highlighted. The committee was enthusiastic about the candidate’s *edutainment* approach.

Edutainment is a kind of crime in academic teaching that Peter certainly cannot be accused of. His approach to teaching is a different one, he managed to get young people, including the two editors, fascinated by the study of language without small movies,

quizzes, jokes, and other such niceties. Rather, Peter's seminars involved blackboards filled with formulae as part of some logical proof, and when the chalk was replaced (or complemented) by modern technology, Peter added innumerable overhead slides. In the early nineties, Peter established the record of going through roughly 80 slides in 45 minutes, and the slides were densely filled by formula (in small font) and unenriched by the graphics, pictures, and cartoons that others would put there. At the end of the eighties, he switched from slides to endless slide rolls – the latest media technology available in Regensburg at that time. He filled page by page of this endless tape, almost like the read-write head of a Turing machine – and sometimes he was even talking about Turing machines – constantly winding up the tape. From time to time, it happens that a student asked a question. One co-editor (Thomas) remembers well the “squeak-squeak” noises the device generated as Peter was winding down the tape for half a minute or so, looking for the topic the student was asking about. We will not mention the dense, 400-pages PowerPoint presentations he later used in Potsdam. Thomas still uses them in his automata theory introduction which he inherited from Peter – after some refurbishments to meet the needs of the video game generation.

But, note, everyone in the audiences in Regensburg and Potsdam felt they had learnt a lot from these heavyish presentations.

What is the secret, then, of Peter's successful teaching? Perfect and detailed preparation is certainly one aspect. When you sit in his class, you notice that each step taken was well-planned, but a person with knowledge of Peter Staudacher can combine this with true flexibility in response to questions and ideas formulated by the students. But, what is much more: Peter has always practiced teaching as an academic dialogue between partners that are, in principle, peers in their quest for truth. His classes were a true reincarnation of Platonic dialogues, with students not being outsmarted and lured into something by fancy didactic methods, but being treated as equals that are capable of thinking, learning, and understanding. For us, when we had entered the university decades ago, this confrontation with a brilliant mind taking us serious was an experience we had not had before and that we did not have again later, it opened us the door to the beautiful world of scientific reasoning. We took *all* classes that Peter offered, and when, after two or three semesters, Peter repeated a class, both of us tried to take this class a second time (but were not admitted).

Peter's Platonic dialogs with his students could last for hours, they continued after the official termination of the class. We have not met anyone else willing to spend nearly half a day going through the details of some scientific problem with a student (and being capable of doing so). Often, the only time constraint was the departure of the last train of the day – the student's last train, of course. By this method, Peter got us, and others many of which have submitted papers to this book, into linguistics. In the beginning, the circles were small – only very few people in Eastern Bavaria opted for linguistics as their major subject when they enrolled at the University of Regensburg where Peter Staudacher was teaching from the very early seventies until 1993. We learnt the import of the rule *tres faciunt collegium* in these days, but at the same time, it was frequently broken. You could end up, once in a while, as the only student in the class, usually taking place between 6 and 9 in the evening. After eight, most of the university was in darkness,

and the night-watchmen were often not really sure what was going when they peeped into the classroom.

Later, when Peter Staudacher moved to Potsdam in 1994, he entered a university that attracted more students to linguistics, and as this book shows, he paved the way into science for a considerable list scholars.

3. Scientific Mass Production

When a German university hires a professor these days, the qualification for edutainment is not the most important criterion. We select people on the basis the number of papers placed into the top peer-reviewed journals, and we measure their academic achievements by a Hirsch-index. Noam Chomsky would thus have a hard time being shortlisted. This development is certainly remarkable, given an insight communicated in the front line personal management seminars sponsored by the university administrations, viz. the insight that a good and efficient team does not consist of one type of personality only: the visionary guy with the splendid plans for the next collaborative research center must be in close contact with the critical mind questioning the sustainability of the high-flying ideas, the effective producer of journal papers concerned with mid-size problems needs a complementation by the reflective colleague who has a much broader picture in mind. It is not such a long time ago that universities could hire their scientific staff on the basis of such considerations.

Peter Staudacher cannot (and would not!) boast of a long list of publications, but his impact on the field of linguistics is considerable. We have already formulated a few thoughts on his teaching shaping the minds of many young scholars and setting the standards (rarely met) for academic instruction. But Peter Staudacher is also the clandestine co-author of numerous books and articles that people in his academic vicinity have published, ranging from speech act theory (as one of his students was surprised to find out when he read the acknowledgements of the second linguistics book he bought) to computational linguistics, from syntax to semantics – and from the to be submitted journal article to the proposal for a collaborative research centre. When you asked for a critical evaluation, Peter Staudacher would never refuse the request, and he would respond by a thorough, deep, convincing critique of the draft. So many books and papers have become so much better in the interaction with Peter Staudacher, and so many proposals for large research grants got accepted because the devastating questions were raised by Peter before the draft came under the eyes of the reviewers. He would apply the same frank (calling things "sheep shit" when necessary) and well-founded critical attitude in the lectures and research seminars in the departments he worked at, so that he figured as the driving force of scientific interaction there. He could be stubborn when something did not convince him (so a visiting professor once sighed in despair: "That is really tiresome") but all open-minded partners in this scientific discourse confessed at some point that Peter had put his finger into the sore point of model to be defended. Thomas remembers a situation in a colloquium in Regensburg where a scholar from some other institute presented his "formalization" of a linguistic topic. Peter just friendly asked: "What does this arrow

mean?” and, while insisting on that question, caused the referent (who had never thought about the meaning of the arrow) to lose his poise.

The uncompromising and frank way in which Peter formulates his opinion was appreciated by all once they realized that Peter applied the same rigorous standards to himself. Such a person who you can lean to and whose feedback you can rely on is missing now in the department in Potsdam, and in the scientific circles in computational linguistics, syntax, and semantics that Peter belonged to, it is a real gap which we know can't be closed because of the current way of recruiting personnel at German universities. We miss Peter's outstanding knowledge not only in the fields just mentioned. Peter is a true polymath who brought in perspectives that we younger scientists have barely heard of. You can have profound conversations with him about music, the Austrian-Hungarian empire, philosophy, the current political situation, and much more.

Peter's research journey posed a considerable challenge for the editors of this book. Their expertise is confined to that aspect of his linguistic knowledge that he highlighted when they attended his classes. Peter's research has now returned out to where it began. Peter was trained as a classical philologist, he wrote a philosophical dissertation on Plato's dialogue Parmenides, and found his way into linguistics more or less by chance: Peter Staudacher and Herbert Brekle knew each other because of the friendship between their wives, and when Herbert Brekle took over one of the very first German professorships for theoretical linguistics, he thought that linguistics would profit from a person with a profound mastery of formal logic, so he offered a position to Peter Staudacher.

The first theoretical model in linguistics that really fascinated Peter Staudacher was Montague Grammar, appealing because of its formal rigor. Montague Grammar remained Peter Staudacher's favourite approach in semantics, and his love for semantics continued even when he turned to other linguistic approaches. At some point, Peter realized how unconvincing Montague grammar was in terms of syntax, Peter started a detailed interaction with syntax (*Government-and-Binding*-style) but later, he became dissatisfied with the rather lax standards concerning the formalization of the theoretical claims made. For Peter Staudacher, this dissatisfaction meant that he began formalizing the axioms of GB-theory himself, and this was the beginning of his career as a computational linguist which brought him to Potsdam, where he became the professor of theoretical computational linguistics in 1993, a position he kept until his retirement in 2005. In the early days, Peter designed one of the very first GB-parsers, written in Prolog, and he contributed to the theory of formal complexity of languages and grammars.

Although holding a computational linguistics position in Potsdam, Peter Staudacher wasn't a computational linguist in the nowadays understanding of the words. As he often explained to first year students, *Computerlinguistik* (the German translation of *computational linguistics* which he found quite bad) has nothing to do with computers. Instead, he focused on the notion of *computation*, when he said that linguistics *is* basically computational linguistics.

Understanding the formal properties of modern syntax theories was one of his major concerns, together with the problems of compositional semantics, in his Potsdam years. After retirement, Peter stayed in Potsdam as long as he was a PI in the collaborative research center on information structure. His moving back to Regensburg was also a

return to philosophy and classical philology – he is now working on the critical edition of Plato's *Kratylos*. Or, more precisely, it was not a return to these academic fields but rather a shift of focus - even when he was actively involved in linguistics, he would write articles on Plato, and work on critical editions.

Above, we made a few critical remarks on recent trends in German academic life, but the import of placing one's work at certain clearly visible locations is of course not negative. Three decades ago, the world was different, with unpublished papers being more valued than what you could find in the journals. In retrospect, this was a highly undemocratic situation (you needed to be a guy to whom such unpublished work was sent, or you needed to know such a guy (at least, xerography had already been invented)), so that the growing importance of journal publications also means a much fairer access to the "means of production" in research (at least for those working at a university rich enough for subscribing to the journal). Be this as it may, it is certainly deplorable that Peter Staudacher decided to not follow the journal publication strategy. This meant that important contributions that he made found their way into the international discussion more slowly than necessary. We just want to pick one example. The semantic analysis of so-called donkey sentences (*every farmer who beats a donkey owns it*) is a long standing problem of formal semantics. Peter Staudacher developed a solution in terms of dynamic predicate logic, in parallel with Groenendijk and Stokhof. It led to a number of correct predictions (such as the availability of a bound reading for the pronoun in *either no burglar was here or he already left the flat*) and is now considered one of the standard approaches to the problem. Peter Staudacher published this work not in a leading journal, but in the *Festschrift* for Herbert Brekle, which did, of course, not focus on formal semantics, and this implied that the article initially did not get the attention it deserved. At least nowadays, it is duly acknowledged. We hope that one or two papers of comparable importance are included in the present *Festschrift* as well!

Peter Staudacher often decided to communicate and promote his research insights in the form of research projects funded by the *Deutsche Forschungsgemeinschaft*, both inside and outside larger research structures such as the Graduate School *Economy and Complexity of Language* (Peter was the director of its Potsdam branch) and the Collaborative Research Center *Information Structure*. We again only want to mention one particularly important and influential aspect. Peter was worried about the computational complexity of current approaches to syntax but at the same time very skeptical about attempts of formalize language in terms of context free grammars – because of their empirical shortcomings. In a highly regarded paper published in the ACL proceedings series, Peter developed a new class of formal languages/grammars, distributed-index languages with very promising computational properties. This line of research was continued in a number of research projects which led the international discussion of the proper formal treatment of minimalist grammars.

4. Conclusion

People contribute to Festschriften because they want to express their gratitude for and their admiration of outstanding scientific achievements. Very often – and this particularly holds for this book dedicated to Peter Staudacher – their gratitude and admiration also extends to the personal domain. Given this is a personal matter, little can and should be said at a public place like this. We only want to say: when you needed him, he was present.

Acknowledgements

A number of people contributed to this book. We would like to express our gratitude to Wolfgang Sternefeld for the \LaTeX -stylefile and Kay-Michael Würzner for adapting it to our needs. Kay also answered numerous questions concerning typesetting matters. We also thank the Potsdam students Maria Lesinski and Anne Mucha for their thorough proof-reading of the manuscripts and Katja Richter and Veit Friemert at the Akademie-Verlag for their support. We are indebted to Manfred Bierwisch for his offer to publish the Festschrift in the *studia grammatica* series. Special thanks go to Ursel Staudacher (Peter's wife implicitly mentioned in the beginning) for her conspiracy.

Potsdam, April 2010

*Thomas Hanneforth
Gisbert Fanselow*

Part I

Syntax

A Spurious Genitive Puzzle in Polish

Joanna Błaszczak

1. Introducing the Puzzle

In Polish, like in many other languages, direct objects of transitive verbs normally receive the ACC(usative). However, when the verb is negated, the case of the direct object obligatorily changes to GEN (hence the name: “Genitive of Negation” (GoN)); cf. (1).

- (1) a. *Ewa czyta ✓ gazetę* / * *gazet*. ✓ ACC / * GEN
Eve reads ✓ newspapers_{ACC} / * newspapers_{GEN}
‘Eve reads/is reading newspapers.’
b. *Ewa nie czyta ✓ gazet* / * *gazety*. NEG ✓ GEN / * ACC
Eve NEG reads ✓ newspapers_{GEN} / * newspapers_{ACC}
‘Eve does not read/is not reading newspapers.’

GoN in Polish, unlike its Russian ‘kin’ (see section 2.1), is a purely syntactic phenomenon, i.e., it is syntactically obligatory and does not have any additional semantic effects. In other words, any direct object of a negated transitive verb will be marked for GEN in Polish, irrespective of its semantic properties or discourse status. Thus, both human/animate objects and inanimate objects, both countable and mass noun objects, both singular and plural objects are likewise marked for GEN under negation; cf. (2) for illustration. Also a distinction along the lines of definiteness/indefiniteness, which often correlates with discourse properties (“old” versus “new” information; see also section 2.3 and 3.2.2.2), does not have any effect on the GoN in Polish; cf. (3) and (4).

- (2) *Nie mogę znaleźć Jana / sera / książki / książek*. NEG GEN
NEG can_{1.SG.PRES} find_{INF} John_{GEN} / cheese_{GEN} / book_{GEN} / books_{GEN}
‘I cannot find John / cheese / a book / books.’
(3) *Nie czytałam niczego / “Wojny i pokoju”*. NEG GEN
NEG read_{1.SG.F.PAST} nothing_{GEN} / “War and Peace”
‘I didn’t read anything.’ / ‘I didn’t read “War and Peace”.’
(4) a. *Co z tymi książkami?* (‘What about these books?’)
Tych książek Jan znowu nie przeczytał.
[these books]_{GEN} John again NEG read_{3.SG.M.PAST}
‘John hasn’t read these books again.’

Argument/verb type	GoN	otherwise marked
1. external arguments of		
a) transitive verbs	*	Nominative
b) unergative verbs	*	Nominative
2. internal arguments	*	
a) (underlying) direct objects of		
transitive verbs	ok	Accusative
unaccusative verbs	*	Nominative
passive verbs	*	Nominative
b) other internal arguments		
indirect objects	*	Dative
prepositional objects	*	'Prepositional Case'
oblique (e.g., INSTR) objects	*	Oblique (e.g., INSTR) Case

Table 1: *Distribution of GoN in Polish*

- b. *Czego Jan nie przeczytał?* ('What has John not read?')
(Jan nie przeczytał) jakieś ważnej książki.
 (John NEG read_{3.SG.M.PAST}) [some important book]_{GEN}
 'John hasn't read some important book. (I don't remember the title).'

Moreover, GoN in Polish, unlike its Russian 'kin' (see section 2.1), is a very restricted phenomenon: its occurrence is confined to just one configuration, namely to the direct (ACC) object position of transitive verbs; cf. Table 1 above. In other words, only direct objects of transitive verbs that are assigned the structural ACC case in the syntax obligatorily change to GEN under negation in Polish. More importantly, even subjects of unaccusative verbs, which are – according to the standard assumptions – base-generated in the direct object position (cf. (5)), are excluded from the GoN rule.¹ Note that even the default, non-agreeing form of the verb does not improve the acceptability of the GEN marked NP in such cases; cf. 5b'.

¹ That verbs like *umrzeć* 'to die' are indeed unaccusative in Polish can be proved by using the unaccusativity/unergativity diagnostics employed by Cetnarowska (2000) for Polish. Firstly, one can form a resultative adjective terminating in *-ły* from *umrzeć* 'to die', which is a deep unaccusativity diagnostic; cf. (i). Secondly, *umrzeć* is infelicitous in the impersonal *-no/-to* construction, which is an unergativity diagnostic in Polish; cf. (ii). Thirdly, *umrzeć* allows for a distributive *po*-subject (cf. (iii)), which is one of the unaccusativity diagnostics proposed by Pesetsky (1982) for Russian and used by Cetnarowska (2000) as a diagnostic for surface unaccusativity in Polish (Examples taken from Cetnarowska, 2000, p. 37, 39, 41):

- (i) *umarły* 'dead' (from *umrzeć* 'to die')
- (ii) * *Umarło z głodu.*
 to-died_{PERF} from hunger
 'They died of hunger.'
- (iii) *[U]marło po dziecku z każdego przedszkola.*
 died_{3SG.N.PERF} po child_{LOC} from each kindergarten
 'A child died from each kindergarten.'

- (5) a. (*W tym szpitalu*) *umart* *wczoraj* *pacjent*. NOM
 (in this hospital) died_{3.SG.M} yesterday patient_{NOM.M.SG}
 ‘(In this hospital) a patient died yesterday.’
- b. (*W tym szpitalu*) ✓ [*żaden pacjent*] /* [*żadnego pacjenta*] *nie umart*.
 (in this hospital) ✓ [no patient]_{NOM.M.SG} /* [no patient]_{GEN.M.SG} NEG died_{3.SG.M}
 ‘(In this hospital) no patient died.’ NOM
- b’ * (*W tym szpitalu*) [*żadnego pacjenta*] *nie umarto*. *GEN
 (in this hospital) [no patient]_{GEN.M.SG} NEG died_{3.SG.N}

Now, given the facts presented above, it is surprising to find examples like (6) in Polish. Such examples are not expected – in light of what was said about the GoN in Polish – since first, the GEN marking seems here not to be obligatory, second, the GEN seems to have here a semantic / interpretational effect, and third, the GEN seems to alternate here with the NOM and not with the usual ACC. This latter fact is particularly baffling: the GEN marked NP,² in (6a) is most likely the internal argument of the unaccusative verb BE,³ but, as was pointed out above, internal arguments of unaccusative verbs (“unaccusative subjects”) cannot be marked for GEN under negation in Polish.

- (6) a. *We wsi* *nie było* (*żadnego*) *lekarza*. GEN
 in village NEG was_{3.SG.N} (no_{GEN.SG.M}) doctor_{GEN.SG.M}
 ‘There was **no doctor** in the village.’
- b. *Lekarz* *nie był* *we wsi*. NOM
 doctor_{NOM.SG.M} NEG was_{3.SG.M} in village
 ‘The doctor was not in the village.’

The aim of the paper is to show that in fact, there is nothing puzzling about the examples in (6). The puzzle quickly turns out to be a spurious one, once it is recognized that (6a) and (6b) are derived from two different “base” structures. More importantly, the GEN marking in (6a) – instead of being a puzzle – will be shown to be compatible with the general rule of GoN in Polish. Before doing so, it will first be argued that all other potential solutions to the puzzling facts in (6) do not work or are not really convincing. In section 2.1 we will see that the facts in (6) cannot be reduced to some Russian sort of GoN. Also the claim that (6a) and (6b) are derived from a uniform “underlying” structure is anything but convincing (section 2.2). Neither can the problem at hand – this is the topic of sections 2.3 and 2.4 – be explained away by referring to different scopes of negation or different information or perspective structures. Section 3 presents the solution to the puzzle posed by the examples in (6) and discusses some of its welcome consequences (see Błaszczak, 2007 for an extensive discussion).

² Throughout this paper I will use the general term ‘nominal phrase’ (NP) to refer to any nominal phrase to avoid a discussion about the NP- vs. DP-distinction, which is especially problematic in languages such as Polish which do not have the category article.

³ Usually BE is taken to be an unaccusative verb par excellence (cf. Babyonyshev, 1996; Brown, 1996; see also Moro, 1997). This view will be modified in section 3.2.

2. Looking for a Solution to the Puzzle

2.1 GEN in (6a) as an Instance of a GoN of the Russian Sort

While the facts presented in (6) are unexpected from a strictly Polish point of view, they seem at first to perfectly suit the Russian facts. The Polish GoN and its Russian ‘kin’ differ in two important aspects, which seem to be relevant to the problem at hand.

Firstly, the GoN in Russian shows a broader distribution. As indicated in Table 2 below, unlike what is the case in Polish, in Russian subjects of unaccusative, passive and so-called existential predicates might be marked for GEN under negation.

Secondly, the GoN in Russian, unlike the GoN in Polish, is not a purely syntactic phenomenon. In fact, it is syntactically not obligatory, i.e., it may alternate with the ACC or the NOM. Note that the GoN in Russian has a clear semantic effect in that “[...] the GEN marked arguments tend to receive an *existential* interpretation, while those marked either NOM or ACC receive either an *existential* interpretation or a *presuppositional/generic* reading” (Brown (1996, p. 48)); cf. (7) and (8) (from Babyonyshev (2003, p. 50–51)).⁴

- (7) a. *Ja ne polučala žurnalov.* GEN
 I NEG received magazine_{GEN.PL}
 ‘I received **no magazines**.’
- b. *Ja ne polučala žurnaly.* ACC
 I NEG received magazine_{ACC.PL}
 ‘I didn’t receive **the magazines**.’ / ‘*? I received no magazines.’
- (8) a. *V klasse ne pojavilos’ studentov.* GEN
 in class NEG appeared_{SG.N} student_{GEN.PL}
 ‘**No students** appeared in class.’
- b. *V klasse ne pojavilis’ studenty.* NOM
 in class NEG appeared_{PL} student_{NOM.PL}
 ‘**The students** did not appear in class.’ / ‘**No students** appeared in class.’

At first glance it might seem that the GEN puzzle posed by sentences like those in (6) above could be solved by simply claiming that this GEN is in some sense like the GoN in Russian. A closer inspection of the facts reveals, however, that such a conclusion would be too rash or even problematic.

As pointed out above, the GoN rule in Russian, unlike that in Polish, does not apply exclusively to direct objects of transitive verbs which are otherwise marked for ACC.

⁴ Some scholars, like, for example, Babyonyshev (2003) (cf. also Pereltsvaig, 1999), even claim that nominals that are unambiguously definite cannot occur in GEN in Russian; cf. (i) (cited from Babyonyshev, 2003, p. 51–52; but see Harves, 2002, p. 45f and Richardson, 2003, p. 134 for critical discussion and apparent counterexamples).

(i) *Vanya ne pročital “Vojnu i mir”. / * “Vojny i mira”.*
 Vanya NEG read_{3.SG.M.PAST} [War and Peace]_{ACC} / * [War and Peace]_{GEN}
 ‘Vanya didn’t read “War and Peace”.’

Argument/verb type	GoN	otherwise marked
1. external arguments of		
a) transitive verbs		Nominative
b) unergative verbs	*	Nominative
2. internal arguments	*	
a) (underlying) direct objects of		
transitive verbs	ok	Accusative
unaccusative verbs	ok	Nominative
passive verbs	ok	Nominative
b) other internal arguments		
indirect objects	*	Dative
prepositional objects	*	'Prepositional Case'
oblique (e.g., INSTR) objects	*	Oblique (e.g., INSTR) Case

Table 2: *Distribution of GoN in Russian*

This opens the possibility of using the GoN rule of the Russian sort to cover both the canonical cases of GoN in Polish (i.e., direct objects of transitive verbs) and the “exceptional” case of the GEN case marking of the “subject” nominal phrase in negated existential BE-sentences in Polish (recall (6a)). However, by making such an assumption we would run into the following problem. The GoN in Russian might also apply to subjects of negated unaccusative and passive verbs as well as to subjects of negated existentials. Now, on the assumption that what these examples have in common is the fact that the GEN marked nominal argument originates in the “underlying” internal argument (“direct object”) position, it is not clear why the Polish version of this GEN should be confined to negated existential BE sentences. The question is thus, why subjects of negated unaccusative verbs (recall ex. (5)) cannot be marked for GEN, or even more surprisingly, why it is so that no other verb – apart from BE – which might be used to indicate the existence of some object at some location, allows its “subject” to be marked for GEN under negation; cf. the contrast between (9) and (10).⁵

- (9) a. *Na stole leżała książka.* ✓NOM
 on table lie_{3.SG.F.PAST} book_{NOM.SG.F}
 ‘There was a book (lying) on the table.’
 b. *Na stole nie leżała (żadna) książka.* ✓NOM
 on table NEG lie_{3.SG.F.PAST} (no_{NOM.SG.F}) book_{NOM.SG.F}
 ‘There was no book (lying) on the table.’

⁵ It should be noted that (10b') is actually acceptable on a contrastive/narrow scope reading of negation; cf. (i).

- (i) *Na stole nie była książka, tylko gazeta.*
 on table NEG was_{3.SG.F} book_{NOM.SG.F} but newspaper_{NOM.SG.F}
 ‘There was not a book but a newspaper on the table.’

- b' **Na stole nie leżała / leżało książki.* * GEN
 on table NEG lie_{3.SG.F.PAST} / lie_{3.SG.N.PAST} book_{GEN.SG.F}
- (10) a. *Na stole była książka.* ✓ NOM
 on table be_{3.SG.F.PAST} book_{NOM.SG.F}
 'There was a book on the table.'
- b. *Na stole nie było (żadnej) książki.* ✓ GEN
 on table NEG be_{3.SG.N.PAST} (no_{GEN.SG.F}) book_{GEN.SG.F}
 'There was no book on the table.'
- b' **Na stole nie była książka.* * NOM
 on table NEG be_{3.SG.F.PAST} book_{NOM.SG.F}

Thus, we arrive in some sense at a paradoxical situation. While the distribution of regular GoN in Polish is too narrow to account for the puzzling GEN in negated existential BE sentences, the distribution of the GoN of the Russian sort is too broad since it would allow for GEN marked "subjects" not only with existential BE but also with unaccusative predicates in general, a situation which is not attested in Polish. The problem is even more serious if one takes into account that there are cases where what appears to be a subject of an unergative verb can be subject to the GoN rule in Russian; cf. (11) (due to Babby, 2000).

- (11) *Na zabrośennom zavode upal i razbilsja Saša. S tex por tam (bol'se)*
 at abandoned factory fell and hurt-self Sasha. From that time there (anymore)
ne igraet nikakix detej.
 NEG play_{3.SG} [NEG-kind children]_{GEN.PL}
 'Sasha fell and hurt himself at the abandoned factory. Since that time, children don't play there (anymore).'

To account for cases like those in (11) above, among others, Babby (2000) proposes an analysis according to which the GoN is assigned to available NPs in the scope of VP negation without regard to their function and, therefore, the domain of the GoN can be represented by the schema in (12), which includes, but is not limited to the direct object. Note that according to Babby (2000, p. 18f.), in the example in (11) we are dealing with an existential sentence in which the inverted subject NP is not in the direct object position but is adjoined to the matrix VP. That is, the VP in existential sentences has the structure given in (13), which conforms to the GoN configuration in (12) (see Babby, 2000 for details).

- (12) [V(P) NP]_{VP} → [ne [V(P) NP_{GEN} NP]_{VP}]_{NEGP}

- (13) [[V]_{VP} NP]_{VP}

In a similar vein, Partee & Borschev (2004) (cf. also Borschev & Partee, 1998) assume that verbs can be semantically "bleached" to just an "existential meaning", which means that the following equivalence holds in the given context of utterance: V(THING, LOC) ⇔ BE(THING, LOC). In other words, if a verb that has its normal lexical meaning, which in most cases is not simply 'exist' or 'be', is used in a GoN construction, the hearer

uses contextual information to support an accommodation of the presupposition, perhaps shifting the verb meaning to make it “less agentive”; cf. (14).

- (14) a. NES (Negated Existential Sentence):

Ne beleło parusov na gorizonte.

NEG shone.white_{SG.N} sails_{GEN.PL.M} on horizon

‘No sails were shining white on the horizon.’

- b. Presupposed Equivalence:

‘A sail shone white on the horizon.’ \Leftrightarrow ‘There was a sail on the horizon.’

- c. ‘Dictionary axiom’ (part of lexical semantics):

to shine-white \Leftrightarrow to be white (in the field of vision)

- d. Dictionary or encyclopaedic axiom; ‘common knowledge’:

‘Sails as a rule are white.’

With this in mind, let us notice that if we were to assume that the GEN marking in negated existential BE-sentences in Polish is an instance of a GoN of the Russian sort, the question would be why similar shifting operations are not possible in Polish. Why can’t Polish verbs be “bleached” just to the “existential meaning”, or – assuming that they might be “bleached” in a given context – why is it so that such a “bleached” verb allows for a GoN in Russian and not in Polish?⁶ Thus, appearances to the contrary, it seems that we cannot solve the problem of the puzzling GEN in (6a) by trying to attribute it to some special property of “existential” constructions in Polish. Though the problematic GEN is connected with existential sentences, it appears to be an exclusive property of negated existential BE sentences and not a property of existential constructions in general. Hence, in the next sections we will narrow down the discussion to BE sentences.

2.2 A Simple Uniform Analysis – Too Simple

The simplest way of analyzing BE-sentences such as those in (6) would be to assume that they are derived from the same underlying structure in (15), following, among others, Hoekstra & Mulder (1990), Freeze (1992), den Dikken (1995, 1997, 2006), Moro (1997).⁷

⁶ Note that examples of the kind discussed by Babby (2000) and Borschev & Partee (1998) / Partee & Borschev (2004) are drastically ungrammatical in Polish; cf. (i) and (ii):

- (i) a. *Od tego czasu nie bawią się tam więcej żadne dzieci.*
 since that time NEG play_{3.PL.PRES} self there more n_{NOM.PL} children_{NOM.PL}
 ‘Since that time, children don’t play there (anymore).’
 b. * *Od tego czasu nie bawi się tam więcej żadnych dzieci.* (cf. (11))
 since that time NEG play_{3.SG.PRES} self there more n_{GEN.PL} children_{GEN.PL}
- (ii) a. *Na horyzoncie nie bielily się żadne żagle.*
 on horizon NEG shone.white_{3.PL} self n_{NOM.PL} sails_{NOM.PL}
 ‘No sails were shining white on the horizon.’
 b. * *Na horyzoncie nie bielito się żadnych żagli.* (cf. (14a))
 on horizon NEG shone.white_{3.SG.N} self n_{GEN.PL} sails_{GEN.PL}

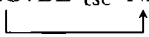
⁷ For reasons of space, I cannot discuss these analyses in due detail. See Błaszczak (2007, 2008b) for a detailed discussion.

- (15) BE [_{SC} NP_{THEME} PP_{LOCATION}]

The different types of construction would then arise as the result of moving either the NP_{THEME} (locative sentences; cf. 16a)) or the PP_{LOCATION} (existential sentences; cf. 16b)) into a sentence-initial position (mostly understood as [Spec,IP]):

- (16) a. NP_{THEME} BE [t_{NP} PP_{LOCATION}] *locative*
 b. PP_{LOCATION} BE [NP_{THEME} t_{PP}] *existential*

Simple and attractive as it might be, such a “uniform” analysis is problematic at least for two reasons. First of all, if locative and existential sentences have the same underlying structure, why is there a difference in case marking of the Theme NP argument in negated variants of the respective sentences (as in (6))? Not only that this analysis does not provide any insightful explanation of this fact, even worse, it makes wrong predictions. Given that negation can obviously influence the case marking of the Theme argument and given furthermore that “properties of the probe/selector α must be exhausted before new elements of the lexical subarray are accessed to derive further operations” (Chomsky, 2000, p.132), the question arises as to how the Theme-NP is ever able to escape the GEN marking (by negation); cf. (17).

- (17) a. BE [_{SC} NP_{THEME} PP_{LOCATION}]
 b. NEG+BE [_{SC} NP_{THEME} PP_{LOCATION}] GEN^{OK/expected} / NOM^{?/unexpected}
- 

Another problematic issue is that it is not clear what accounts for different interpretations if locatives and existentials have underlyingly the same argument structure. What decides which element (NP_{THEME} or PP_{LOCATION}) has to move? Freeze (1992) solves this problem by assuming that the question of which argument (the THEME or the LOCATION) moves to [Spec,IP] is governed by the [\pm definite] feature of the THEME; cf. (18).

- (18) a. BE [_{SC} NP_{THEME} PP_{LOCATION}]
 BE [doctor in village]
 b. BE [doctor in village]
 [+definite]
 b'. locative sentence (NP > BE > PP)
 Lekarz był we wsi.
 doctor_{NOM.SG.M} was_{3.SG.M} in village
 ‘The doctor was in the village.’
 c. BE [doctor in village]
 [–definite]
 c'. existential sentence (PP > BE > NP)
 We wsi był lekarz
 in village was_{3.SG.M} doctor_{NOM.SG.M}
 ‘There was a doctor in the village.’

Even if it works in (18), this account is too simple. For example, in negated existential sentences the THEME argument can very well be definite/topical and move to some sentence initial position; cf. (19b/b') and (20).

- (19) a. existential sentence (PP > BE > NP_{GEN})
We wsi nie było lekarza.
 in village NEG was_{3.SG.N} doctor_{GEN.SG.M}
 'There was **no** doctor in the village.'
- b. BUT:
existential sentence (NP_{GEN} > BE > PP)
Lekarza nie było we wsi.
 doctor_{GEN.SG.M} NEG was_{3.SG.N} in village
 ≈ 'The doctor was not in the village.'
- b'. (Context: John had a small accident and went to see his doctor. Unfortunately)
Lekarza nie było dzisiaj we wsi.
 doctor_{GEN.SG.M} NEG was_{3.SG.N} today in village
 'The doctor was not in the village today.'
 (He had some important meeting in the town.)
- (20) existential sentence (NP_{GEN} > BE > PP)
 (Context: John's teacher talking to John's mother:
 "I must tell you something about your son.")
Jana nie było dzisiaj znowu na lekcji.
 John_{GEN} NEG was_{3.SG.N} today again on lecture
 'John was not at the lecture today again.'

To conclude, a simple uniform analysis of existential and locative sentences sketched above leaves us without any clear answer to the question about the case marking of nominal arguments and about possible word orders in such sentences. Is there another way of explaining the problematic facts?

2.3 An Analysis in Terms of Scope of Negation and Information Structure – Not Good Either

According to Babby (1980), there are two factors that are relevant for the GEN marking of the "subject" in negated existential sentences, namely: (i) scope of negation and (ii) information structure (understood here in terms of Theme-Rheme structure). He distinguishes between existential sentences (ES), on the one hand, and declarative sentences (DS) (to which our locative sentences would belong), on the other hand. While in the former negation/assertion has scope over the entire sentence, in the latter the scope of negation/affirmation is restricted to the verbal predicate, i.e., the subject is not included in the scope of negation/assertion, but rather the entity denoted by the subject NP is presupposed to exist independently; cf. (21).

AFFIRMATIVE			NEGATED	
(21)	EXISTENTIAL	a. [_{SCOPE OF A} VP NP]	\xRightarrow{neg}	b. [_{NEG} VP NP _{GEN}]
	DECLARATIVE	c. NP [_{SCOPE OF A} VP]	\xRightarrow{neg}	d. NP _{NOM} [_{NEG} VP]
	a.	<i>We wsi był lekarz</i> in village was _{3.SG.M} doctor _{NOM.SG.M} ‘There was a doctor in the village.’		
	b.	<i>We wsi nie było (żadnego) lekarza.</i> in village NEG was _{3.SG.N} (no _{GEN.SG.M}) doctor _{GEN.SG.M} ‘There was no doctor in the village.’		
	c.	<i>Lekarz był we wsi.</i> doctor _{NOM.SG.M} was _{3.SG.M} in village ‘ The doctor was in the village.’		
	d.	<i>Lekarz nie był we wsi.</i> doctor _{NOM.SG.M} NEG was _{3.SG.M} in village ‘ The doctor was not in the village.’		

Next, Babby (1980) proposes identifying the scope of negation/assertion with the rheme part of a sentence. Accordingly, affirmative and negated existential sentences are analyzed as "rheme-only" sentences (possibly with an optional locative theme). The GEN is assigned to the "subject" NP in negated existential sentences (NES) in accordance with the following rule in (22):

(22) *Rule of Genitive marking in NES:*

$$[\text{RHEME V NP}] \xRightarrow{neg} [\text{NEG [V NP}_{\text{GEN}}]]$$

Conditions: (a) NP is indefinite, (b) V is semantically empty⁸

However, this analysis of the GEN marking of the nominal argument in negated existential sentences is problematic for reasons we have already discussed. First, we saw in (20) that the GEN marking is not an exclusive property of indefinite NPs. Second, as was illustrated in (19) and (20), a GEN marking is possible even if a given NP is not part of the rheme (contrary to what the condition in (22) would let us expect).

Moreover, the assumption that the NOM/GEN case alternation in negated locative/existential sentences can be reduced to the scope of negation is problematic as well. In Babby's analysis an NP has to occur in the scope of negation (which in turn is identified with the rheme part of a sentence) in order to be marked for GEN. At first glance it might appear that the scope of negation is indeed a decisive factor determining the case marking of the nominal argument in negated existential/locative sentences. Thus, the intuitive difference between (23a) and (23b) would be that in the former case the NP is outside the scope of negation while in the latter case it is still in the scope of negation.

⁸ Recall the discussion in section 2.1, where it was pointed out that a predicate (in Russian) can be semantically "bleached" to just an "existential meaning".

- (23) a. *Lekarz nie był we wsi.*
 doctor_{NOM.SG.M} NEG was_{3.SG.M} in village
 'The doctor was not in the village.'
- b. *Lekarza nie było we wsi.*
 doctor_{GEN.SG.M} NEG was_{3.SG.N} in village
 ? 'There was no doctor in the village.'
 'The doctor was not in the village.'

This assumption is, however, problematic for at least two reasons (see Borschev & Partee, 2001; Partee & Borschev, 2002; Partee, 2000 for similar observations and extensive discussion of Russian facts).

Firstly, notice that Polish has no articles, hence the definite/indefinite interpretation of nominal phrases must be rendered in some other way, mainly by word order or by some special (in)definiteness markers such as demonstrative or indefinite pronouns. Now, on the assumption that a GEN marked NP has to occur within the scope of negation (in the rhematic part of a sentence), we would actually expect that a bare nominal phrase like the NP 'doctor' in the example above (i.e., an NP that is not accompanied by any overt marker of definiteness like a demonstrative pronoun) should be interpreted as indefinite. Thus, we would expect that the example (23b) above has (mainly) the interpretation: 'There was **no doctor** in the village.' This interpretation is in fact quite difficult to get here. The most obvious reading (under neutral intonation), which is in accordance with the basic rule about the interplay of word order and the definite versus indefinite interpretation of noun phrases in Polish,⁹ is the reading under which the NP 'doctor' is interpreted as definite (and as a matter of fact as belonging to the thematic part of the sentence). But note that – if the above observation is correct – this would actually mean that the GEN NP occurs outside the syntactic scope of negation.¹⁰

Secondly, notice that in negated existential sentences and in negated locative sentences both arguments, Location and Theme, can (and must) be in the scope of negation if they are themselves negative pronouns, so-called 'n-words'; cf. (24) and (25) (see Borschev & Partee, 2001, p. 40f. for similar Russian examples). This is so because negative pronouns behave like negative polarity items in that – in order to be properly interpreted, i.e., to be grammatical – they must be licensed by (be in the scope of) an appropriate licenser

⁹ Cf. Szwedek (1974, p.208): "[...] Nouns with indefinite interpretation appear in sentence final position only (unless explicitly marked indefinite in some other way). [...] Nouns with definite interpretation appear in non-final positions (again, unless explicitly marked otherwise)". See also Weiss (1982, p. 235) and Topolińska (1981, p. 64), who point out that a nominal phrase in the initial preverbal position (i.e., in the so-called thematic part of the sentence, under normal intonation characteristics of the initial position) must be accompanied by an indefinite pronoun when it functions as an unspecified (indefinite) argument. Otherwise it would automatically be interpreted as specified (definite).

¹⁰ Note that – as pointed out by Borschev & Partee (2001, p. 39f.) – in the case of inherently definite NPs like proper names the situation is different. It does not matter whether a proper name is outside or within the scope of negation "since its structural scope will not be reflected in any semantic difference in the result". But in the case of a bare noun, being or not being in the scope of negation is expected to have a semantic effect (definite vs. indefinite interpretation), unless we assume that the preverbal GEN NP is a presuppositional definite description, hence scope-insensitive just like a proper name.

(here: negation; see Błaszczak, 2001 as well as the references cited there for a detailed discussion).

- (24) a. *Nikt tam nie był.*
 nobody_{NOM.SG.M} there NEG was_{3.SG.M}
 ‘nobody was there.’
 b. *Jan (nigdzie) nie był (nigdzie).*
 John_{NOM.SG.M} (nowhere) NEG was_{3.SG.M} (nowhere)
 ‘John was nowhere.’
- (25) a. *(Nikogo) tam nie było (nikogo).*
 (nobody_{GEN.SG.M}) there NEG was_{3.SG.N} (nobody_{GEN.SG.M})
 ‘nobody was there.’ / ‘There was nobody there.’
 b. *Nigdzie (Jana) nie było (Jana).*
 Nowhere (John_{GEN.SG.M}) NEG was_{3.SG.N} (John_{GEN.SG.M})
Lit.: ‘Nowhere was John.’

To sum up the discussion so far, it seems that the scope of negation alone cannot explain the difference in the case marking of the nominal argument in negated existential/locative sentences. Likewise, information structure alone, though relevant, is not the decisive factor either. If neither scope of negation nor information structure alone, what else could explain the problematic facts at hand?

2.4 An Analysis in Terms of Different Perspective Structure – A More Promising Approach

Given the existence of examples like (19b) or (20), Borschev & Partee (2001, 2002) argue that the decisive contrast between negated locative (NDS) and negated existential sentences (NES) is to be defined not in terms of the Theme-Rheme structure (and the scope of negation), but rather in terms of “Perspective Structure”. They assume that existential and locative sentences have a common structure, as defined in (26) (cf. Borschev & Partee, 2001, p. 18).

- (26) The common structure of “existence/location situations” and their descriptions:
BE (THING, LOC)

Now, the relevant assumption is that an “existence/location situation” may be structured either from the perspective of the THING or from the perspective of the LOCation.¹¹ The participant chosen as the point of departure for structuring the situation is called the *Perspectival Center* by Borschev and Partee (ibid.).¹² If THING is chosen as the *Perspectival Center*, the emerging structure of the interpretation is that of a locative (“Declarative”)

¹¹ Borschev & Partee (2001, p. 36f.) notice that their notion of Perspective is in some sense similar to the notion of Observer used by Padučeva (1992, 1997). The latter notion is also found in Klebanowska (1974).

¹² Borschev & Partee (2001, p. 18) point out that “[their] Perspectival Center will play the role that ‘Theme’ played for Babby (1980)”.

sentence; cf. (27). In contrast, if LOC is chosen as the *Perspectival Center* the resulting structure of the interpretation is that of an existential sentence; cf. (28) (see Borschev & Partee, 2001, p. 18f., 28f. for a detailed discussion and more examples). Importantly, an NES denies the existence of the thing(s) described by the subject NP in the *Perspectival Center* LOCation (ibid., p. 19).

(27) Perspective Structure: BE (THING, LOC) [THING is the Perspectival Center]

- a. *Ivan był na lekcii.* DS
 Ivan_{NOM} was_{3.SG.M} at lecture
 ‘Ivan was at the lecture.’
- b. *Ivan nie był na lekcii.* NDS
 Ivan_{NOM} NEG was_{3.SG.M} at lecture
 ‘Ivan was not at the lecture.’

(28) Perspective Structure: BE (THING, LOC) [LOC is the Perspectival Center]

- a. *Na lekcii był Ivan.* ES
 at lecture was_{3.SG.M} Ivan_{NOM}
 Lit.: ‘At the lecture there was Ivan.’ / ‘Ivan was at the lecture.’
- b. *Na lekcii nie było Ivana. / Ivana nie było na lekcii.* NES
 at lecture NEG was_{3.SG.N} Ivan_{GEN}
 Lit.: ‘At the lecture there wasn’t Ivan.’ / ‘Ivan wasn’t at the lecture.’

Another important assumption is that “any Perspectival Center must be normally presupposed to exist” (Borschev & Partee, 2001, p. 19). Given this assumption, we expect that NDS (our negated locative sentences) and NES (our negated existential sentences) differ not only in terms of case marking of their “subjects”, but also in terms of presupposition. More precisely, while in an NDS the existence of the THING (i.e., the NOM subject) is always presupposed, in an NES it is the existence of the LOC that is presupposed. Partee & Borschev (2002, p. 192) demonstrate this claim on the basis of the following Russian examples (here quoted from Harves (2002, p. 238–9)). Thus in (29), in a context that there was no concert, i.e., the concert failed to take place, only (29a) can be felicitously used. This is so because in (29a) due to its status as an NDS, the existence of LOC, understood here as a location involving an event (concert), is not presupposed. Unlike (29a), (29b) is an NES, meaning that it is precisely the LOC whose existence is presupposed. Because of this, (29b) is not appropriate in the context at hand.

(29) Context 1: ‘There was no concert.’

- a. *OK Ni odin student na koncerte nie był.* NDS
 [not one student]_{NOM.SG.M} at concert NEG was_{3.SG.M}
 ‘Not a single student was at the concert.’
- b. *#Ni odnogo studenta na koncerte nie było.* NES
 [not one student]_{GEN.SG.M} at concert NEG was_{3.SG.N}
 ‘There was not a single student at the concert.’

In contrast, in a context that there are no students in the town, only (30b) can be felicitously used. This is so because due to its status as an NES, in (30b) it is the existence of LOC and not that of THING which is presupposed. Accordingly, (30a), which is an NDS, meaning that it is the existence of THING¹³ that is presupposed in this case, is not appropriate in the given context.

(30) Context 2: ‘There are no students in our town.’

- | | | | | | | | | |
|----|----|-----------|--|----|--------------------|-----------|-----------------------|-----|
| a. | # | <i>Ni</i> | <i>odin student</i> | | <i>na koncerte</i> | <i>ne</i> | <i>był.</i> | NDS |
| | | | [not one student] _{NOM.SG.M} | at | concert | NEG | was _{3.SG.M} | |
| | | | ‘Not a single student was at the concert.’ | | | | | |
| b. | OK | <i>Ni</i> | <i>odnogo studenta</i> | | <i>na koncerte</i> | <i>ne</i> | <i>było.</i> | NES |
| | | | [not one student] _{GEN.SG.M} | at | concert | NEG | was _{3.SG.N} | |
| | | | ‘There was not a single student at the concert.’ | | | | | |

An analysis in terms of Perspective Structure as such does not explain why the nominal argument in negated existential sentences is marked for GEN (i.e., what the factors are that allow for a GEN marking of what would appear to be a “subject” NP), but it seems to be more promising than the other analyses discussed in the previous sections in that it at least makes the right predictions, namely it restricts the GEN marking of a nominal argument to one particular type of sentence, i.e., to negated existential sentences in which the LOCATION is chosen as the Perspectival Center, meaning that it is the LOC and not the THING whose existence is presupposed. Since the Perspective Structure is a different kind of distinction than a Theme-Rheme structure (see below), it is no longer necessary for an NP to be the rheme (or part of the rheme) of the sentence in order to be marked for GEN. Thus, an NP which is the theme (or part of the theme) in a given sentence can still be marked for GEN as long as such an NP is the THING in a negated existential sentence (i.e., in a sentence where the LOC is chosen as the Perspectival Center).

In the following additional arguments will be given to strengthen the view that in order to account for the NOM/GEN case alternation in negated locative/existential sentences more is needed than information structural distinctions. In particular, it is basically claimed that an analysis based on Perspective Structure, as proposed by Partee and Borschev in their numerous works, is in principle correct. However, the claim needs to be stronger: the difference in the interpretation of locative (Babby’s ‘declarative’) and existential (Babby’s ‘existential’) sentences, which Partee and Borschev attribute to the question of what (THING or LOC) is chosen as the Perspectival Center, is in fact just a reflex of fundamentally different structures of the respective sentences. That is, the difference between locative and existential sentences is above all structurally encoded and all other properties of the respective sentences follow from this. The precise structural analysis cannot be given here for reasons of space (see Błaszczak, 2007 for an extensive discussion) and only the relevant structures will be sketched to make the point mentioned above clear.

¹³ In the case of a quantificational NP it is not the referent of the NP itself that is presupposed to exist, “but the domain over which it quantifies” (Partee & Borschev, 2002, p. 191).

3. Solving the Puzzle

3.1 GEN/NOM Alternation is more than Information or Perspective Structure

That something like Perspective Structure is more than just the issue of “taking a perspective”, but must be structurally encoded (i.e., it has a structural correlate), is corroborated by the formal distinctions between negated locative and existential sentences: among others, different case markings of the nominal argument (NOM vs. GEN) and different agreement properties (agreement vs. lack of agreement, i.e., ‘default’ agreement).¹⁴ Thus, the question is how the Perspective Structure can be conceptualized. With what other already existing linguistic notions/concepts can it be compared? Partee & Borschev (2004) point out that Perspective Structure “is basically a structuring at the model-theoretic level, like the telic/atelic distinction, or the distinction between Agents and Experiencers. These properties reflect cognitive structuring of the domains that we use language to talk about, and are not simply “given” by the nature of the external world. Correspondingly, all of them are properties with respect to which we find differences from language to language” (ibid., p. 8). They further notice that “the choice of Perspectival Center, as so described, has much in common with the choice of Theme (Topic)¹⁵ on the one hand, and with the choice of grammatical Subject on the other: all three notions involve structuring something (a situation, a proposition, or a sentence) so that one part is picked out and the rest is in effect predicated of it.” Partee and Borschev stress that Perspective Structure is not the same as information structure, although they admit that it is in some sense similar to information structure in that the element (LOC or THEME) chosen as the Perspectival Center is also the most likely candidate for the topic. According to Partee and Borschev, their Perspective Structure is also “not directly syntax, although it may be reflected in the syntax” (ibid.). Rather, they take the Perspective Structure “primarily to be a choice of what structure we want to impose on some piece of reality that we want to describe. And in this it has something in common with deciding whether to describe a buying or a selling. It is similar in some ways to figure-ground choices, as in choosing whether to say that A is above B or that B is below A” (ibid.).

¹⁴ Other formal distinctions between locative and existential sentences are discussed in detail in Błaszczak (2007, 2008a).

¹⁵ Partee and Borschev do not seem to make a distinction between ‘theme’ and ‘topic’. See de Swart & de Hoop (2000) for a recent discussion as to how many distinctions (different concepts) with respect to information structure are really needed. For example, do we need both a Theme-Rheme distinction and a Topic-Comment distinction, or could these two distinctions coincide/be reduced to just one distinction? ‘Theme’ and ‘topic’ would then be understood as “what we are talking about”, ‘rheme’ and ‘comment’ as “what we are saying about the theme” (ibid., p. 116).

3.2 Existential and Locative Sentences have Different Underlying Structures

Unlike Partee and Borschev, I would like to propose that Perspective Structure is not only reflected in the syntax, it is directly encoded in the syntax.¹⁶ Thus, the proposal is that in examples like (6a) and (6b) above, we have two different verbs BE with two different argument structures. In the former case, the nominal argument is projected as the external argument, and in the latter case it is the locative phrase that is the external argument; cf. (31).¹⁷ In other words, what Partee and Borschev describe as taking Perspective on some piece of reality is in fact choosing between two verbs BE: a locative one or an existential one, each of which has its own argument structure. Given that in the case of the existential verb BE the (quasi) external argument is the Location (which might be understood a Possessor) while the nominal argument is the internal argument, the resulting structure is what Partee & Borschev (2004, p. 6) describe as “in an existential sentence, it is as if the predication is somehow “turned around”, to assert of the LOCATION that it has the THING in it.” While for Partee and Borschev the answer to the question of “in what way and at what ‘level’ of structure the predication is ‘turned around’” (ibid.) is at the level of Perspective Structure, the answer proposed here is that this is a matter of having two different verbs BE whose arguments are differently projected in the syntax; cf. (31).¹⁸

¹⁶ Partee & Borschev (2004, p. 8, the page number here refers to the manuscript of this paper) are a little bit more precise about “where in the grammar the choice of Perspective Structure is registered,” namely “it is a ‘diathesis choice’, a choice among two alternative argument structures for verbs that can take both a ‘THING’ and a ‘LOC’ argument, analogous to the argument structure choices for verbs like *spray*, *load* or verbs like *give*, *send*. An alternative that might be preferred in some frameworks is to permit alternative surface syntactic choices from a single underlying structure, as in the ‘small clause’ analyses of Chvany (1975), Moro (1997) [...]”

¹⁷ More correctly, one has to differentiate two types of locative sentences. For space reasons, I will ignore (ii).

- (i) [_{VP} NP_{AGENT} [_V V [_{VP} V PP_{LOC}]]] *locative (agentive reading)*
 (ii) [_{VP} V [_{VP} NP_{THEME} [_V V PP_{LOC}]]] *locative (“simple position” reading)*

¹⁸ Note that only the NP in locative sentences can have an agentive interpretation (cf. (i), due to Dziwirek, 1994, p. 173–4) and shows usual subject properties (in terms of binding; cf. (ii)). This is expected under the analysis proposed here since only locative sentences (on their agentive reading) have an external NP argument (“Agent”) whereas the nominal argument in existential sentences is a Theme argument, generated in the underlying ‘direct object’ position.

- (i) a. *Celowo nie byłem na przyjęciu u Ewy.* *locative*
 on purpose NEG was_{1.SG.M} at party at Eve
 ‘I wasn’t at Eve’s party on purpose.’
 b. **Celowo nie było mnie na przyjęciu u Ewy.* *existential*
 on purpose NEG was_{3.SG.N} me_{GEN} at party at Eve
 (ii) a. *Jan_i (nie) był w swoim_i / *jego_i pokoju.* *locative*
 John_{NOM} (NEG) was_{3.SG.M} in REFL / *his room
 ‘John was (not) in his room.’
 b. *Jana_i nie było w jego_i / *?swoim_i pokoju.* *existential*
 John_{GEN} NEG was_{3.SG.N} in his / *? REFL room
 ‘John wasn’t in his room.’

- Notice that by proposing that the difference between locative sentences and existential sentences is directly encoded in the syntax, the case marking of the nominal argument (NOM vs. GEN) becomes a matter of syntax. In other words, whether the nominal argument is going to be marked for NOM or GEN is a question of what syntactic structure a given sentence has. By doing this, we free the case marking in negated existential and locative sentences from the obligation to reflect the information structure differences or differences in terms of the scope of negation (recall the analysis by Babby, 1980).

By assuming that locative and existential sentences have different underlying structures the case marking properties cease to be puzzling. It was pointed out in section 1 that GoN in Polish is restricted to just one configuration: direct object position of a negated transitive verb. Now, the analysis of existential sentences along the lines proposed in (31a) provides an immediate solution to the GEN dilemma in this case. The GEN marking of the nominal argument in negated existential sentences is no longer surprising, no more than the NOM marking of the nominal argument in negated locative sentences. On the contrary, the GEN marking is actually expected – given the structure in (31a) – and it is completely compatible with the usual GoN facts in Polish. Let us look at the structures provided in (32).

- In order to be marked for GEN under negation, the nominal argument must be in the right configuration: the nominal argument has to be generated as a direct internal argument of the negated transitive. Thus, to put it in descriptive terms, it seems that for an internal argument to be GEN marked under negation in Polish, there must be another (external) argument present in the structure; cf. (32a). Now notice that on the analysis advocated in this paper only existential sentences offer the right configuration for GoN assignment; cf. (32b). The locative argument (location), which is generated in some sense “externally” to the verb (in the specifier position of a light verb), might be understood (in some abstract sense) as a possessor:¹⁹ The situation that some entity exists/does not exist at

¹⁹ Interestingly, note that in regular possessive sentences with an NP possessor as an external argument, the internal argument ('the possessee') is also marked for GEN under negation in Polish:

some location can be understood in such a way that the location contains/does not contain some entity.²⁰ In contrast, locative (“agentive”) sentences do not provide the right configuration: in this case (cf. (32b)), the NP is itself the external argument.

3.2.2 Information Structure / Discourse Properties

3.2.2.1 ‘Inner predication’ and ‘outer predication’

Before we discuss the information structure properties in locative and existential sentences, let us make a distinction between ‘inner predication’ (i.e., the predication within the ν -V-domain: the thematic-aspectual domain, inner domain) and ‘outer predication’ (i.e., the predication within the C-T-domain: the discourse-informational domain, outer domain). Note that these two predication domains determine what syntactically relevant phases are.²¹

In the first phase of the derivation (the ‘inner’ phase) the arguments of a given verb are syntactically projected, resulting in a thematic-aspectual structure. For a “verbal phrase” to be thematically complete, all argument positions must be discharged, which means that also the eventuality argument (the referential argument) must be discharged, or to put it in other terms, existentially bound. Assuming that the existential binding of the eventuality argument takes place in the Polarity Phrase (PolP), PolP in this sense closes up the ν -V-domain, that is, PolP belongs to the first phase of derivation, the ‘inner phase’.^{22,23}

The inner phase is also the domain within which “inner predication” takes place. Following Chierchia (2004:26), this predication relation is taken to be a relation which consists in predicating a property of an individual (importantly, an individual of any sort), the result of which is a proposition: “If r is a property and u an individual (of any sort) and \sim is the predication relation, then $\sim r(u)$ is the proposition that u has property r ” (ibid.). Syntactically, the predicator (\sim) can be regarded as being associated with the functional head ν , VP functioning then as a property. In other words, there is a predication relation

- (i) a. *Jan ma samochód / *samochodu*
 John has car_{ACC} / * car_{GEN}
 ‘John has a car.’
 b. *Jan nie ma samochodu / *samochód.*
 John NEG has car_{GEN} / * car_{ACC}
 ‘John has no car.’

²⁰ Cf. Zamparelli (1995) for a similar analysis with respect to existential sentences in English and Italian; cf. also Hazout (2004).

²¹ See also den Dikken (2007) for the notion of an *inherent* phase which is also based on predication (subject-predicate structure). However, den Dikken’s analysis is very different from that proposed here.

²² Notice that it is also at this level (or to put it more precisely: at the first phase of derivation in a phasal model of Chomsky (2000) et seq.) that the fate of the case marking of the nominal argument in negated existential and locative sentences is decided.

²³ Depending on the value of the head of the PolP, affirmative or negative, the meaning we will get will be: there is an eventuality e such that ... ($\exists e$) or there is no eventuality e such that ... ($\neg \exists e$), respectively.

which is mediated by v^0 , and which consists in predicating a property, realized syntactically as a VP, of an individual occupying the Spec,vP position (the external argument).²⁴

In the second phase of the derivation (the ‘outer’ phase) the temporal properties (and also temporally related aspectual properties) and modal properties (including force/clause typing etc.) are determined. And, more importantly, also discourse-informational properties are settled here. The latter comprise, among others, determining what the sentence is about, that is, choosing the sentence topic. Normally, one of the verb’s arguments, i.e., one of the elements of the preceding phase, is chosen to be the topic of a sentence. Given that the eventuality argument is the referential argument of the verb, it can be chosen to be the topic of a sentence as well. This is what happens in thetic sentences.²⁵

In this respect, word order and discourse-pragmatic properties, are decided on at the second phase (CP/TP), although they are in some sense derivatives of the decisions taken with respect to the first Spell-Out domain.

With this background, let us have a closer look at some concrete examples.

3.2.2.2 Subjects of ‘inner’ and ‘outer predication’

In examples like (27) and (28), it is the nominal argument (the ‘thing’) in the former case and the Location argument in the latter case which is the “subject” of ‘inner’ predication. The “subject” of the ‘inner’ predication usually (by default) becomes a “subject” of ‘outer’ predication, understood here in terms of a Topic-Comment structure. This corresponds to the cross-linguistic observation that the subject of a sentence is by default also the topic of the sentence unless the subject is somehow explicitly marked as not being the topic (such marking strategies may include the use of special focus particles, the placement of the subject in some postverbal position, or the use of special intonation) (see Lambrecht, 2006 for a recent discussion). This assumption would also be in agreement with the view of Kiss (2002) concerning the interpretation of the standard EPP (Extended Projection Principle), namely the idea that it could be reinterpreted as the requirement that the sentence contain a subject of predication (see also Rothstein, 2001).²⁶ Notice that by making the assumption that the “subject” of the ‘inner’ predication becomes (by default) the Topic of the sentence, we also derive Borschev and Partee’s observation concerning the presuppositional nature of their *Perspectival Center*. Given that what Borschev and Partee refer to as ‘Perspectival Center’, i.e., the Location argument and the nominal argument (‘Thing’), is the “subject” of the ‘inner’ predication in existential and locative sentences respectively, and given furthermore that the “subject” of inner predication is by default also the Topic of the sentence, we derive the fact that “any Perspectival Center must be normally presupposed to exist” (Partee & Borschev, 2002, p. 188). This is

²⁴ In the case of verbs lacking an external argument it can be assumed – following Chierchia (2004) – that they have an “expletive subject” via the “Expletivization Rule”. Expletivization applies to a proposition and turns it into a property that is “predicated of an arbitrarily chosen funny object” (ibid., p. 32).

²⁵ Cf. Krifka (2006), who observes that – though thetic judgments lack a topic constituent – they have a topic denotation, namely the situation itself. See below.

²⁶ This is actually only one of the two functions of the standard EPP, referred to by Kiss (2002, p. 116) as EPP1: “A sentence expressing predication must contain a topic.” The second function, called by Kiss (2002, p. 119) EPP2, is the following: “Of the arguments of a predicate, one must be marked as a subject”. These two requirements usually, but not necessarily, coincide.

so because we (normally) presuppose the existence of things (the topic) we are talking about. Or to put it more generally, the subject of predication is normally presupposed to exist.²⁷ Thus, in the default case, the Location seems to become the topic in an existential sentence and the nominal argument ('Thing') becomes the topic in a locative sentence. The remaining part of the sentence (V plus the nominal argument in the former case, and V plus the Location argument in the latter case) represents the comment, and thus the new information in the unmarked case. This gives us the unmarked word orders of the respective sentences, i.e., the unmarked PP-(neg)V-NP order of existential sentences and the unmarked NP-(neg)V-PP order of locative sentences. But – as was illustrated in section 2.2 (cf. also ex. (28a) vs. (28b)) – negated existential sentences show more flexibility as far as the ordering of their constituents is concerned. This is so because – unlike affirmative existential sentences, which have a presentational function, i.e., are usually used to introduce new participants into a discourse – the negated existential clauses are in most cases not used discourse-initially, hence they contain discourse-linked material (old information, theme). Now, observe that the main principle governing the actual arrangement of lexical items in a sentence in Polish (as in other Slavic languages) is not grammatical, but communicative. Thus, as argued in Grzegorek (1984, p. 92), "lexical items occur in the order of their relative communicative value, i.e., according to the increasing degree of C. D. (= Communicative Dynamism²⁸) or according to the topicality in Givon's terminology. [...] In languages such as Polish or Russian preverbal position usually marks the part of the sentence which is old information, whereas the verb functions either as transition or as part of the focal phrase". Given this principle, it is actually expected that constituents representing old information will be placed in a preverbal position. And this is exactly what happens in the Polish examples (33).

(33) a. [Preceding context:

I was told that the doctor should be in the village at this time, but:]

Lekarza we wsi nie było.

doctor_{GEN.SG.M} in village NEG was_{3.SG.N}

'The doctor was not in the village.'

b. [Preceding context: I went extra to Cracow to meet John, but:]

Jana tam nie było.

John_{GEN.SG.M} there NEG was_{3.SG.N}

'John was not there.'

²⁷ That the topic constituent comes together with an existential presupposition is presumably even more understandable if we take sentences with an (overt) topic to correspond to categorical statements. Categorical judgments are 'double judgments', i.e., they consist of two steps: (i) "naming an entity" and (ii) "making a statement about it" (see Sasse, 1987 and the references cited there for discussion). The first step can be taken to be equivalent with asserting the existence of an entity about which – in the second step – a statement will be made.

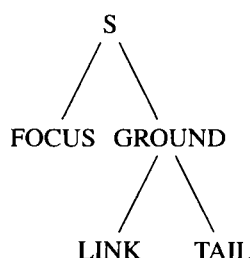
²⁸ "Communicative dynamism is the deep word order rendered by the left-right order of the nodes of the tectogrammatical representation" (de Swart & de Hoop (2000, p. 113)). This concept played an important role in the Prague School. In accordance with communicative dynamism, the 'less dynamic' topical material precedes the 'more dynamic' focal material. In the tectogrammatical representation there is a clear borderline between topic and focus: "There is an item A such that every item which is less dynamic than A belongs to the topic, whereas every item which is more dynamic belongs to the focus" (de Swart & de Hoop (2000, p. 113)).

Note that in the examples above both the GEN marked nominal argument as well as the Location argument represent old information, i.e., they belong to the background. Is there an explicit (distinguished) topic in such examples? Are we talking about 'the doctor' / 'John' or rather about 'the village' / 'Cracow'? It seems to me that it is certainly possible here to take 'the doctor' or 'John' to be the topic of the respective sentence ('the village' / 'Cracow' simply being the background or thematic/given information).

Note that it is also possible that only the GEN marked NP appears in preverbal position whereas the locative phrase appears postverbally; cf. (34) (see also (19b) and (20)).

- (34) [Preceding context: I was looking everywhere for the doctor, but:]
Lekarza nie było we wsi.
 doctor_{GEN.SG.M} NEG was_{3.SG.N} in village
 'The doctor was not in the village.'

Again, in this example both 'the doctor' and 'in the village' belong to the background (if 'in the village' is contextually understood as 'everywhere in the village'), but only the NP appears preverbally, hence only the NP seems to be a good candidate for the topic. This would actually correspond to the view advocated by Vallduví (1993) that instead of a binary distinction like Background-Focus, a trinary distinction is needed since not every element belonging to the background is automatically the topic. The topic in fact usually corresponds to only one part of the background information, which he calls 'link'. The remaining part of the background (i.e., the background without the link) is called 'tail'; cf. (35) from Vallduví (1993, p. 8).²⁹



- (35) a. *What about John? What does he do?* [G [L John]] [F drinks BEER]
 b. *What about John? What does he drink?* [G [L John] drinks] [F BEER]

Assuming such an analysis, the GEN NP in (34) would be the link, and the locative PP would represent the tail; the focus of the sentence would be NEG + V.

²⁹ That binary distinctions like Topic-Comment or Theme-Rheme are not always adequate to correctly describe the information structure of a given sentence has also been pointed out by Fibras (1965). He observes that often it is the case that, e.g., a verb in a given sentence does not belong to focus (new information, rheme), nor does it represent old information (theme). He proposes therefore that verbs play a transitional role between theme and rheme and postulates a trinary structure: Theme-Transition-Rheme. King (1995, p. 77) expands this idea: "If this three-way division is further expanded to allow elements other than the verb to appear in the transition, then this division closely resembles the division into topic, discourse-neutral material, and focus: the theme corresponds to the topic, the transition to discourse-neutral material, and the rheme [...] to the focus."

Finally, let us look at (36). Here, both the Location argument and the nominal argument appear postverbally. In such examples it could be assumed that the actual topic is the invisible event variable. However, it might be assumed that in such cases there is a situationally or contextually determined invisible restriction on the event variable: ‘at that time’ as in (36a) or more generally ‘there and then’ as in (36b). The postverbal material in (36) represents new (focal) information or discourse-neutral information.

- (36) a. (*W owym czasie*) *nie było we wsi lekarza.*
 (at that time) NEG was_{3.SG.N} in village doctor_{GEN.SG.M}
 ‘(At that time) there was no doctor in the village.’
 b. *Był duży ruch na głównej ulicy.*
 was_{3.SG.M} [big traffic]_{NOM.SG.N} on main street
 ‘There was heavy traffic on the main street.’

The proposed analysis would in fact closely resemble the analysis of Kiss (2002). Kiss (2002, pp. 114–5), following the proposals put forward by Kratzer (1995) and Erteschik-Shir (1997) on the basis of Davidson (1967), that eventive verbs, hence eventive sentences, have an event argument serving for spatio-temporal specification, typically represented by a variable bound by an invisible existential. In eventive sentences the optional temporal and locative expressions are licensed by the invisible event variable; they function as restrictions on it and tend to appear in the topic position. Further Kiss assumes that “[...] eventive sentences with no visible constituent in SpecTopP predicate about the situational or contextual restriction on their event variable”. The subject of predication is then in such cases the situationally or contextually determined invisible restriction on the event variable (meaning ‘here and now’, or ‘there and then’)" (ibid., p. 115).³⁰

To sum up the discussion so far, it has been argued that the difference between existential and locative sentences is syntactically encoded in terms of what (LOC or THING) is the subject of inner predication (at the vP/VP level). Also the case marking of the nominal argument has been claimed to be a matter of syntax. The actual word order in existential and locative sentences is pragmatically determined. For example, we have seen that in a (negated) existential sentence the nominal argument may appear postverbally or preverbally, depending on its discourse status. Accordingly, also a locative phrase may be placed postverbally if it is itself ‘less dynamic’ than the nominal argument, as in (34), or if it itself represents new information, as in (36). But importantly, in all these examples, independent of the actual position of the locative phrase in the sentence, it is the Location argument that is the subject of inner predication and the nominal argument (‘Thing’) that

³⁰ That locative (or temporal) expressions might function as restrictions on the event variable appears to be intuitively clear. Kiss (2002, p. 115) notes that in Hungarian such temporal and locative expressions tend to appear in topic position; cf. (i) (ibid.). The truth value of a given sentence is evaluated with respect to the referent of such a temporal or locative element. Thus, the truth value of (i) is evaluated with respect to the referent of *tegnap* ‘yesterday’.

(i) [_{TOPP} *Tegnap* [_{VP} *meghívta Marit János vacsorára*]]
 yesterday invited Mary_{ACC} John for.dinner
 ‘Yesterday John invited Mary for dinner.’

is the object. This shows us that the case marking of the nominal argument cannot be primarily a matter of information structure. More precisely, the nominal argument does not have to represent new information (to be the Rheme in the sentence) in order to be marked for GEN (recall the discussion of Babby's (1980) analysis in section 2.3). Note that this is exactly what happens in other sentences in Polish. So, for example, in all the sentences given in (37) below, 'John' is the subject of the inner predication (at the vP level). By default, the subject of inner predication becomes the subject of outer predication (the topic of the sentences; see the discussion above); cf. (37a). However, as was pointed above, the actual arrangement of constituents in a sentence in Polish is pragmatically determined, i.e., depending on their communicative value (discourse status), the subject and the object may appear in different positions in the clause; cf. (37b/c) (other orders are possible as well; see Witkoś (1993, p. 291f.)). Note that the – admittedly – marked verb-initial word order in (37d) could be analyzed along the line proposed by Zybatov & Junghanns (1998) for verb-initial sentences in Russian. According to Zybatow and Junghanns, such sentences are best analyzed asthetic sentences which have an abstract Topic ("situation / eventuality argument topic") (cf. also the analysis by Kiss, 2002 mentioned above). More precisely, the topic feature is assigned to no overt constituent, but to the functional head Tense, and it must be realized or marked as such by the verb overtly raised to T (see Błaszczak, 2007 for a different implementation of this view).

- (37) a. *Jan czyta książkę.*
 John_{NOM} read_{3.SG.PRES} book_{ACC}
 'John is reading a book.'
 b. *Książkę czyta Jan.*
 book_{ACC} read_{3.SG.PRES} John_{NOM}
 c. *Książkę Jan czyta.*
 book_{ACC} John_{NOM} read_{3.SG.PRES}
 d. *Czyta Jan książkę*
 read_{3.SG.PRES} John_{NOM} book_{ACC}

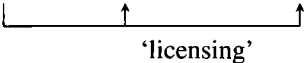
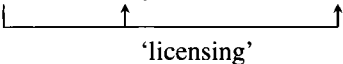
3.2.3 Scope of Negation: Licensing of n-Words

The proposed analysis (i.e., the assumption that existential and locative sentences have different base structures) has yet other nice pay-off. Once we have freed the NOM/GEN alternation in negated locative/existential sentences from the scope of negation, the otherwise problematic facts concerning the licensing of n-words in such constructions (recall ex. (24) and (25), which are repeated below) receives a natural explanation.

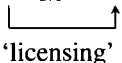
- (24) a. *Nikt tam nie był.*
 nobody_{NOM.SG.M} there NEG was_{3.SG.M}
 'nobody was there.'
 b. *Jan (nigdzie) nie był (nigdzie).*
 John_{NOM.SG.M} (nowhere) NEG was_{3.SG.M} (nowhere)
 'John was nowhere.'

- (25) a. (*Nikogo*) *tam nie było* (*nikogo*).
 (nobody_{GEN.SG.M}) there NEG was_{3.SG.N} (nobody_{GEN.SG.M})
 ‘nobody was there.’ / ‘There was nobody there.’
 b. *Nigdzie (Jana) nie było* (*Jana*).
 Nowhere (John_{GEN.SG.M}) NEG was_{3.SG.N} (John_{GEN.SG.M})
Lit.: ‘Nowhere was John.’

The licensing is done at the level of the first phase of a derivation, negated vP/VP (see Błaszczak, 2001). Note that the negation does not differentiate between locative and existential sentences here, as shown in (38). This emphasizes once again the argument that the case marking of the nominal argument in the examples at hand cannot be a matter of being in the scope of negation.

- (38) a. [_{NEGP} **NEG** [_{VP} PP [_{VP} BE NP_{NOM}]]]
 a'. [_{NEGP} **NEG** [_{VP} *nowhere* [_{VP} BE *nobody*_{GEN}]]]

 b. [_{NEGP} **NEG** [_{VP} NP_{NOM} [_{VP} BE PP]]]
 b'. [_{NEGP} **NEG** [_{VP} *nobody*_{NOM} [_{VP} BE *nowhere*]]]


Note that exactly the same happens in any other negated sentence in Polish. The negative pronouns are licensed in the scope of negation at the first phase level; cf. (39). If a negative pronoun is chosen to be the subject of outer predication, it will be interpreted partitively in the sense of ‘no X of some contextually determined/presupposed set’ (cf. also footnote 13). This is true for (39), where ‘nobody’ can mean, e.g., ‘none of the students’, and – unsurprisingly – also for, e.g., (24a) and (25b). Thus (24a) might mean, depending on a given context, e.g., ‘none of us’, ‘none of the professors’, etc., and (25b) can mean ‘at none of the places I was looking for John/him’. Hence, we see that the scope of negation in negated existential/locative sentences is determined in exactly the same way as in other negated sentences (in Polish). No special assumptions are needed here.

- (39) a. *Nikt nie przeczytał artykułu.*
 nobody_{NOM.SG.M} NEG read_{3.SG.M.PAST.PERF} article_{GEN.SG.M}
 ‘Nobody has read the article.’
 b. [_{NEGP} [**NEG** [_{VP} *nobody* [_{VP} read paper_{GEN}]]]]


3.2.4 Additional Supporting Evidence: “Correction” and Ellipsis

Another argument for the claim that the difference between existential and locative sentences is primarily syntactically encoded and is only secondarily reflected in terms of

information structure is based on the observation that only in negated locative sentences with a NOM NP can a contrastive/correction phrase ‘but ...’ be used; see Saloni & Świdziński (1985, p. 143); cf. (40).³¹

(40) a. NEG/NOM

✓ *Chłopiec nie był w Lublinie, tylko w Warszawie.*

boy_{NOM.SG.M} NEG was_{3.SG.M} in Lublin but in Warsaw

‘The boy was not in Lublin but in Warsaw.’

b. NEG/GEN

* *Chłopca nie było w Lublinie, tylko w Warszawie.*

boy_{GEN.SG.M} NEG was_{3.SG.N} in Lublin but in Warsaw

Note further that examples like (40b) are bad irrespective of the word order. Thus, a counterpart of (40b) with a sentence-initial locative PP and a postverbal NP is also bad; cf. (41). Assuming that different word orders normally reflect different information structures in Polish, the lack of contrast between (40b) and (41) seems to suggest that the reason for the ungrammaticality of the examples at hand is rather to be looked for in some deeper structural properties of the respective sentences. Cf. also (42).

(41) * *W Lublinie nie było chłopca, tylko w Warszawie.*

in Lublin NEG was_{3.SG.N} boy_{GEN.SG.M} but in Warsaw

(42) a. * *Jana nie było w Lublinie, tylko Piotra.*

John_{GEN} NEG was_{3.SG.N} in Lublin but Peter_{GEN}

(intended: ‘Not John was not in Lublin, but Peter.’ /

‘It is not John, who was not in Lublin, but Peter.’)

b. ?* *W Lublinie nie było Jana, tylko Piotra.*

in Lublin NEG was_{3.SG.N} John_{GEN} but Peter_{GEN}

Before we explain the ungrammaticality of (42), let us go back to the contrast illustrated in (40) above. I would like to suggest that the reason why (40a) is fine and (40b) is bad is first of all structurally determined. This provides an indirect argument for the claim that the difference between locative and existential sentences is primarily structurally encoded in terms of what (Location or the nominal argument (‘Thing’)) is the subject of the inner predication and only secondarily reflected in the information structure of the corresponding sentences.

So let us consider what exactly happens when a contrastive/corrective phrase ‘but ...’ is used. It seems to me that the use of such a phrase makes the “structurally sentential” negation a contrastive negation, which means that the sentence is no longer negative, but “affirmative”. This in turn requires that such a “previously negative” sentence has a syntactically identical affirmative counterpart. The reason for this is that the contrastive/corrective phrase is based on ellipsis (which in turn requires structural identity of the elided material). Now observe that only (43a), which corresponds to (40a), has a cor-

³¹ See Borschev & Partee (2001, p. 51f.) for a relevant discussion in Serbian/Croatian and Russian.

responding, i.e., structurally identical, affirmative counterpart, cf. (43b) and (43c), hence the ellipsis works fine in this case, as shown in (43d/e).

- (43) a. *Jan nie był w Lublinie.* [= (40a)]
 John_{NOM} NEG was_{3.SG.M} in Lublin
 'John was not in Lublin.'
 → "affirmative counterpart"
 b. *Jan był w Lublinie.*
 John_{NOM} was_{3.SG.M} in Lublin
 'John was in Lublin.'
 → "underlying structure" (identical for both (43a) and (43b))
 c. [_{NEGP} *nie* [_{VP} Jan [_{VP} *był* w Lublinie]]]
 → "contrastive phrase + ellipsis" (**bold-face** = spell-out; ~~struck-through~~ = elided material; *italics* = copies)
 d. *Jan był nie w Lublinie, tylko w Warszawie.*
 John_{NOM} NEG was_{3.SG.M} in Lublin but in Warsaw
 'John was not in Lublin, but in Warsaw.'
 e. **Jan** [_{NEGP} **nie był** [_{VP} ~~Jan~~ [_{VP} ~~był~~ w **Lublinie**]]],
 tylko [_{VP} ~~Jan~~ [_{VP} ~~był~~ w **Warszawie**]].

In contrast with (43a), (44a), which corresponds to (40b), does not have a "structurally identical" affirmative counterpart, cf. (44b/c): the locative sentence in (44b) has a completely different underlying structure; cf. (44b'). The existential sentence in (44c) is also not identical: a different form of the verb is used and the nominal argument is differently case marked; cf. (44a') and (44c'). Given this, no ellipsis is allowed here; cf. (44d) and (44e/e').

- (44) a. *Jana nie było w Lublinie.* [= (40b)]
 John_{GEN} NEG was_{3.SG.N} in Lublin
 'John was not in Lublin.'
 → "underlying structure"
 a'. [_{NEGP} *nie* [_{VP} w Lublinie [_{VP} było Jana_{GEN}]]]
 → "affirmative counterparts"
 b. *Jan był w Lublinie.* *locative*
 John_{NOM} was_{3.SG.M} in Lublin
 'John was in Lublin.'
 c. *W Lublinie był Jan.* *existential*
 in Lublin was_{3.SG.M} John_{NOM}
 'John was in Lublin.'
 → "underlying structures"
 b'. [_{VP} Jan [_{VP} był w Lublinie]]
 c'. [_{VP} w Lublinie [_{VP} był Jan_{NOM}]]
 → "contrastive phrase, **NO ellipsis**"