

REVIEW

Christiane Müller, *Permeable Islands: A Contrastive Study of Swedish and English Adjunct Clause Extraction* (Lundastudier i nordisk språkvetenskap A80). Lund: Lund University, 2019. Pp. 283.
doi:10.1017/S033258651900026X

Reviewed by Terje Lohndal

NTNU Norwegian University of Science and Technology and UiT The Arctic University of Norway, Department of Language and Literature, NO-7491 Trondheim, Norway. terje.lohndal@ntnu.no

In this doctoral thesis, Christiane Müller takes on one of the major issues that has shaped much of modern formal linguistic research, namely long-distance dependencies. These dependencies have been important in particular because of their proclaimed universality (starting with Chomsky 1964, Ross 1967) and because they illuminate the locality of syntactic computations more generally (Belletti 2019). They also carry significant implications for learnability, since there is very little if any negative data that will help the child figure out that certain dependencies are licit, and others are not. Universality could solve this problem as the constraints then did not have to be learned to begin with. However, the picture is far more complicated. Rizzi (1982) was among the first to argue that there is variation, but ever since his work, this variation has been thought to be limited and systematic (Phillips 2013). Starting in the early 1980s, Mainland Scandinavian languages have been reported to be unusually permissive when it comes to extracting from domains that are typically considered to be islands (Hagström 1976, Engdahl & Ejerhed 1982). Quite tellingly, reference grammars for all the Mainland Scandinavian languages report relative clause extraction to be acceptable given that certain conditions are fulfilled (Faarlund, Lie & Vannebo 1997, Telemann, Hellberg & Andersson 1999, Hansen & Heltoft 2011). However, since then it has always been unclear how general and systematic the permissibility is. In recent years, extraction from domains typically considered to be islands has again become very popular. Currently, islands are being investigated intensely across the Scandinavian languages: Christensen, Kizach & Nyvad (2013a, b) and Nyvad, Christensen & Vikner (2017) study Danish, Lindahl (2017), Tutunjian et al. (2017), and Wiklund et al. (2017) study Swedish, and Bondevik (2018) and Kush, Lohndal & Sprouse (2018, 2019) study Norwegian. Müller's dissertation fits into this current trend nicely as she investigates adjuncts in Swedish in great detail, a topic that has not been investigated much in Swedish in recent years.

Müller's dissertation studies extraction from adjunct clauses in Swedish in comparison with English. A couple of examples of adjunct islands are provided in (1) from English.

- (1) a. *Who did Mary cry [after John hit <who>]?
 b. *This girl, John arrived [after Bill kissed <this girl>]

Occasional examples have been presented in the literature intended to show that Swedish does not obey this constraint, as seen in (2).

- (2) Sportspegeln somnar jag [när jag ser <sportspegeln>].
sports.program.DEF fall.asleep I when I watch
 'I fall asleep when I watch the sports program.'

(Anward 1982: 74)

Müller's objective is to more rigorously investigate the extent to which Swedish allows violations of the adjunct clause constraint. She has written a dissertation which altogether comprises seven chapters.

Chapter 1 is a brief introduction which outlines the research questions and the aims of the dissertation. The latter are as follows (p. 11):

- To identify and investigate factors that have an impact on the acceptability of adjunct island extraction in Swedish.
- To examine the role of two factors (coherence and finiteness) more closely in Swedish and English, with the goal to investigate the possibility of cross-linguistic variation with regard to their impact on the acceptability of sentences involving adjunct island extraction.
- To investigate how coherence and finiteness affect the online processing of adjunct clause extraction sentences in English, with the goal to look for online support in favor of the permeability of such structures.

The remaining six chapters seek to realize these aims.

Chapter 2 provides important background information concerning the topic of island constraints, zooming in on adjunct islands specifically. The chapter narrows down the scope of the thesis by presenting the various types of adjunct clauses that will be studied. In addition, the chapter also contains a rich and systematic overview of different syntactic and non-syntactic analyses in the literature that have been invoked to account for the data, especially in the Scandinavian languages.

The focus on the Scandinavian languages continues in Chapter 3, which offers a detailed overview of the Mainland Scandinavian situation. Müller reviews a range of different analyses that have been proposed to account for the unexpected island violations in Mainland Scandinavian languages. She looks at the relevant previous research and identifies several knowledge gaps. In particular, we have little knowledge about the conditions that affect the felicity of adjunct clause extraction in languages like Swedish, and even Scandinavian more generally.

The next three chapters are case studies of adjunct extraction in Swedish. Chapter 4 contains an acceptability judgment study whose goals are to identify which factors

determine whether or not adjunct extraction is acceptable. The factors that Müller considers are: (i) the degree of semantic coherence between the matrix and the adjunct clause (building on the work by Truswell 2011 for English), (ii) the degree of syntactic integration of the adjunct clause (this includes both its internal and external syntax, see Haegeman 2004, 2012), and (iii) the grammatical function of the extracted element (adjuncts vs. arguments). The main finding from the chapter is that all these factors are relevant for both Swedish and English. However, there is a residue of instances of licit extraction from a subset of finite adjunct clauses reported to be unacceptable in English, suggesting that finiteness plays a potential key-role in account for this difference. A caveat is in order, though: The methodology employed in this chapter is not very rigorous, with few items per condition. Müller acknowledges the limitations, in part through labeling it a 'semi-formal' study. Nevertheless, the findings are suggestive of certain patterns worth exploring further.

Chapter 5 investigates the hypothesis that adjunct islands in English and Swedish are similar when it comes to the coherence factor, but they differ when it comes to the role of finiteness in determining whether or not extraction is possible. Two acceptability judgment studies are devised to test this hypothesis, considering extraction from *after*-adjunct clauses in Swedish and English, respectively. An example from English is given in (3) (Truswell 2007: 166, see also Manzini 1992).

- (3) a. Who did John go home [after talking to <who>]?
 b. *Who did John go home [after he talked to <who>]?

Müller finds that finiteness causes a decline in acceptability in English but not in Swedish, even though the acceptability never got ratings above mid-point on a seven-point scale. Nevertheless, this demonstrates that there is constrained cross-linguistic variation in extractability between the two languages. She argues that these results support the idea that filler-gap integration also is attempted in some island structures, which leads Müller to develop what she calls THE PERMEABILITY HYPOTHESIS. This hypothesis holds that 'integrative processes related to dependency formation are to some degree active in islands, at least in adjunct islands of the type investigated here' (p. 159).

Chapter 6 sets out to test the permeability hypothesis based on data from English. Müller designed an online experiment using self-paced reading aimed at testing the role of coherence and finiteness in sentences with extraction from *after*-adjunct clauses. The main finding is that the reading times are faster for coherent adjuncts compared to non-coherent adjuncts. Furthermore, she finds a finiteness-related slowdown at regions associated with gap integration in coherent adjuncts. This shows that some kind of filler-gap dependency is attempted in the adjuncts investigated, providing support for the hypothesis that integrative processes take place inside island domains.

The last chapter, Chapter 7, provides a summary of the main research questions and findings of the dissertation. Müller also discusses certain further theoretical implications. Among others, she argues that certain adjunct clauses in English and Swedish should be considered weak islands. As such, she contributes to the growing inventory of weak islands:

Up until the late 1980s nothing much beyond *wh*-islands had been thought to be weak (selective) islands. Beginning with Relativized Minimality, however, and ever-growing range of WIs has been recognized. Thus, theories of WIs have mushroomed, each coming with a significant set of new data and important new connections to other domains. (Szabolcsi & Lohndal 2017:3)

Müller also attempts to provide a more general typology of languages depending on whether or not they allow extraction from adjuncts (p. 199). She distinguishes between languages that obey the Strong Adjunct Condition and languages that adhere to the Weak Adjunct Condition. In the former case, adjuncts are always strong islands (such as Dutch, French and Greek, according to Müller), whereas in the latter case adjuncts can either be strong or weak. Those that are strong are the Peripheral Adverbial Clauses whereas the weak ones are Central Adverbial Clauses, drawing heavily on Haegeman's (2004, 2010, 2012) typology. Given this typology, Müller argues that it may be possible to maintain the universality of the Adjunct Condition (Stepanov 2007). However, new findings regarding extraction from sentential adjuncts in Norwegian cast additional doubt on the universality of adjuncts (Bondevik 2018, Kush, Lohndal & Sprouse 2019). These findings suggest that adjuncts are not syntactic islands in Norwegian, although there may be potentially universal semantic factors that could account for some of the data (see Kush, Lohndal & Sprouse 2019 for additional discussion).

In general, the overview of the relevant literature is comprehensive, and Müller clearly demonstrates substantial critical and analytic skills in integrating her own research questions into this literature. Her own analyses are creative and mature. In particular, it is striking how close the relationship between the empirical generalizations and the proposed theoretical analyses are. This is a great virtue of the present dissertation where the theoretical analyses are modeled on substantive empirical tests and not governed by a particular pre-chosen model. Rather, Müller engages critically with the previous research in this area, and she lets her empirical generalizations together with sound analytical principles guide the theoretical analysis.

Let us return to the question posed at the outset, namely how general and systematic island violations in Mainland Scandinavian languages are. Are we closer to being able to answer that question now? In some ways we are, due to the resurgence of island studies. In other ways, we may not be, since the various studies use a different methodology and look at different phenomena. As such, it is difficult to provide an overarching picture given that most of the studies are not comparable. In turn, this also means that we do not have a solid answer to the question of why Mainland Scandinavian languages are exceptional, that is, what the locus of variability is. The hope would be that future work would address this by doing rigorous comparative studies across the Mainland Scandinavian languages.

That said, this does not in any way detract from the merits of *Permeable Islands: A contrastive study of Swedish and English Adjunct Clause Extraction*. This dissertation advances our understanding of Swedish and illuminates core differences between Swedish and English. Furthermore, it provides scholars working on the other Mainland Scandinavian languages with homework in testing whether similar (or different) patterns can be obtained. Müller argues that '[E]xtraction possibilities

might vary for different types of extraction dependencies such as topicalization, question formation, and relativization or cleft formation' (p. 107). Her work combined with the other recent work show that we need a more refined view of islands, since movement operations do not seem to cluster the way much previous research has suggested. As such, Mainland Scandinavian languages will likely continue to set the agenda when it comes to studying islands for years to come.

References

- Anward, Jan. 1982. Basic Swedish. In Elisabet Engdahl & Eva Ejerhed (eds.), *Readings on Unbounded Dependencies in Scandinavian Languages*, 47–75. Stockholm: Almqvist & Wiksell.
- Belletti, Adriana. 2019. Locality in syntax. *Oxford Research Encyclopedia of Linguistics*. doi:10.1093/acrefore/9780199384655.013.318.
- Bondevik, Ingrid. 2018. Investigating the universality of adjunct islands through formal acceptability experiments: A comparative study of English and Norwegian. MA thesis, NTNU Norwegian University of Science and Technology.
- Chomsky, Noam. 1964. *Current Issues in Linguistic Theory*. Mouton: The Hague.
- Christensen, Ken Ramshøj, Johannes Kizach & Anne Mette Nyvad. 2013a. Escape from the island: Grammaticality and (reduced) acceptability of *wh*-island violations in Danish. *Journal of Psycholinguistic Research* 42(1), 51–70.
- Christensen, Ken Ramshøj, Johannes Kizach & Anne Mette Nyvad. 2013b. The processing of syntactic islands: An fMRI study. *Journal of Neurolinguistics* 26(2), 239–251.
- Engdahl, Elisabet & Eva Ejerhed (eds.). 1982. *Readings on Unbounded Dependencies in Scandinavian Languages*. Stockholm: Almqvist & Wiksell.
- Faarlund, Jan Terje, Svein Lie & Kjell Ivar Vannebo. 1997. *Norsk referansegrammatikk* [The Norwegian reference grammar]. Oslo: Universitetsforlaget.
- Haegeman, Liliane. 2004. The syntax of adverbial clauses and its consequences for topicalisation. In Martine Coene, Gretel De Cuyper & Yves D'hulst (eds.), *Current Studies in Comparative Romance Linguistics*, 61–90. Antwerp: University of Antwerp.
- Haegeman, Liliane. 2010. The internal syntax of adverbial clauses. *Lingua* 120(3), 628–648.
- Haegeman, Liliane. 2012. *Adverbial Clauses, Main Clause Phenomena, and the Composition of the Left Periphery*. Oxford: Oxford University Press.
- Hagström, Björn. 1976. Om satsflätans förutsättningar. En skiss [On the preconditions for islands: A sketch]. In Lars Svensson, Anne Marie Wieselgren & Åke Hansson (eds.), *Nordiska studier i filologi och lingvistik. Festskrift tillägnad Gösta Holm på 60-årsdagen den 8 juli 1976* [Nordic studies in philology and linguistics: A Festschrift in honor of Gösta Holm on the occasion of his 60th birthday on July 8 1976], 138–150. Lund: Studentlitteratur.
- Hansen, Erik & Lars Heltoft. 2011. *Grammatik over det danske sprog* [A grammar of the Danish language]. København: Syddansk universitetsforlag.
- Kush, Dave, Terje Lohndal & Jon Sprouse. 2018. Investigating variation in island effects: A case study of Norwegian *wh*-extraction. *Natural Language & Linguistic Theory* 36(3), 743–779.
- Kush, Dave, Terje Lohndal & Jon Sprouse. 2019. On the island sensitivity of topicalization in Norwegian: An experimental investigation. *Language* 95(3), doi:10.1353/lan.0.0237.
- Lindahl, Filippa. 2017. *Extraction from Relative Clauses in Swedish*. Ph.D. dissertation, University of Gothenburg.
- Manzini, Rita. 1992. *Locality: A Theory and Some of its Empirical Consequences*. Cambridge, MA: MIT Press.
- Nyvad, Anne Mette, Ken Ramshøj Christensen & Sten Vikner. 2017. CP-recursion in Danish: A cP/CP-analysis. *The Linguistic Review* 34(3), 449–477.
- Phillips, Colin. 2013. On the nature of island constraints. I: Language processing and reductionist accounts. In Jon Sprouse & Norbert Hornstein (eds.), *Experimental Syntax and Island Effects*, 64–108. Cambridge: Cambridge University Press.
- Rizzi, Luigi. 1982. *Issues in Italian Syntax*. Dordrecht: Foris.

- Ross, John R.** 1967. *Constraints on Variables in Syntax*. Ph.D. dissertation, MIT.
- Stepanov, Arthur.** 2007. The end of CED? Minimalism and extraction domains. *Syntax* 10(1), 80–126.
- Szabolcsi, Anna & Terje Lohndal.** 2017. Strong vs. weak islands. In Martin Everaert & Henk van Riemsdijk (eds.), *The Wiley-Blackwell Companion to Syntax*, 2nd edn., 1–51. Malden, MA: John Wiley & Sons.
- Teleman, Ulf, Staffan Hellberg & Erik Andersson.** 1999. *Svenska Akademiens Grammatik* [The Swedish Academy grammar]. Stockholm: Svenska Akademien.
- Truswell, Robert.** 2007. *Locality of Wh-movement and the Individuation of Events*. Ph.D. dissertation, University College London.
- Truswell, Robert.** 2011. *Events, Phrases and Questions*. Oxford: Oxford University Press.
- Tutunjian, Damon, Fredrik Heinat, Eva Klingvall & Anna-Lena Wiklund.** 2017. Processing relative clause extractions in Swedish. *Frontiers in Psychology* 8:2118, doi:[10.3389/fpsyg.2017.02118](https://doi.org/10.3389/fpsyg.2017.02118).
- Wiklund, Anna-Lena, Fredrik Heinat, Eva Klingvall & Damon Tutunjian.** 2017. An acceptability study of long-distance extractions in Swedish. In Linda Escobar, Vincent Torrens & Teresa Parodi (eds.), *Language Processing and Disorders*, 103–120. Newcastle upon Tyne: Cambridge Scholars.