

Heterogeneity in the structure of Icelandic *-st* figure reflexives

by Christiana Moser

B.A., University of Victoria, 2017

A Thesis Submitted in Partial Fulfillment

of the Requirements for the Degree of

MASTER OF ARTS

in the Department of Linguistics

© Christiana Moser, 2021

University of Victoria

All rights reserved. This thesis may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.

We acknowledge with respect the Lekwungen peoples on whose traditional territory the university stands, and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.

## **Supervisory Committee**

Heterogeneity in the structure of Icelandic *-st* figure reflexives

by CHRISTIANA MOSER

### **Supervisory Committee**

Dr. Martha McGinnis, Department of Linguistics, University of Victoria

#### **Supervisor**

Dr. Leslie Saxon, Department of Linguistics, University of Victoria

#### **Departmental Member**

## Abstract

Under a theoretical framework of Minimalism and Distributed Morphology, this thesis presents evidence for an analysis that accounts for heterogeneity in the argument structure of figure reflexives that contain *-st* verbs of motion in Icelandic, as in *Bjartur squeezed through the crowd*, where *Bjartur* is both the entity that is the AGENT of the *squeezing* and the FIGURE, the entity that gets *squeezed through the crowd*.

A set of *-st* verbs of motion is divided into three classes. I argue for an unergative analysis of Class 1 verbs, as they do not require PPs and can occur in impersonal passives. An expletive argument analysis best accounts for clauses containing Class 2 verb roots, as they require a PP for most speakers and can occur in impersonal passives. A derived-subject analysis best accounts for clauses containing Class 3 verb roots, as they do not require a PP and do not allow impersonal passives for most speakers.

### Supervisory Committee

Dr. Martha McGinnis, Department of Linguistics, University of Victoria

### Supervisor

Dr. Leslie Saxon, Department of Linguistics, University of Victoria

### Departmental Member

## Table of Contents

Supervisory Committee .....	i
Abstract .....	ii
Table of Contents.....	iii
List of Tables .....	v
List of Figures.....	vi
List of Abbreviations .....	vii
Acknowledgments.....	viii
Dedication.....	xi
Preface.....	xii
Chapter 1. Introduction: Overview, assumptions, and methodology.....	1
1.1 Overview of the thesis .....	2
1.2 Assumptions.....	3
1.3 Syntactic analyses of Icelandic <i>-st</i> figure reflexives.....	5
1.3.1 An expletive argument analysis of Icelandic <i>-st</i> .....	6
1.3.2 An unergative analysis of Icelandic <i>-st</i> .....	8
1.3.3 A derived-subject analysis of Icelandic <i>-st</i> .....	10
1.4 An underspecification analysis .....	12
1.5 Methodology.....	17
1.5.1 Participants.....	17
1.5.2 Procedure .....	18
Chapter 2. Literature review .....	21
2.1 A review of key concepts.....	21
2.1.1 Expletive constructions.....	21
2.1.2 Verbs of motion .....	22
2.1.2.1 Prepositional phrases .....	23
2.1.2.2 Figure and Ground .....	24
2.2 Icelandic Argument Structure.....	25
2.2.1 Inflectional properties .....	26
2.2.2 Icelandic verbal morphology .....	26
2.2.3 Passives .....	27
2.2.4 Middles .....	31
2.2.5 Unaccusatives .....	33
2.2.6 Unergatives .....	36
2.2.7 Reflexives .....	37
2.3 Description of the expletive argument analysis of <i>-st</i> .....	39
2.3.1 Interpretation of <i>i*</i> : Categorical Feature Values .....	40
2.3.2 Interpretation of <i>i*</i> : Influence of Structure at Syntactic-Semantic Interface...	41
2.3.3 Interpretation of <i>i*</i> : Influence of Lexical Roots .....	42
2.3.4 Expletive Voice and anticausatives .....	42
2.3.5 Expletive <i>p</i> and figure reflexives .....	47
2.4 Summary .....	52
Chapter 3. An analysis of three classes of figure reflexives .....	54
3.1 Class 1: Figure reflexives with properties of unergatives.....	56
3.1.1 Optional prepositional phrases in Class 1 <i>-st</i> figure reflexives.....	59

3.1.2 Impersonal passives of Class 1 <i>-st</i> -marked figure reflexives.....	60
3.1.3 Impersonal passives without prepositional phrases in Class 1 .....	62
3.1.4 <i>-st</i> -marked vs. unmarked figure reflexives in Class 1.....	64
3.1.5 Prepositional phrases in Class 1 unmarked figure reflexives .....	68
3.1.6 Impersonal passives of Class 1 unmarked figure reflexives.....	70
3.1.7 Non-reflexive interpretations in Class 1 .....	72
3.1.8 Patterns in Class 1 root meaning.....	75
3.1.9 Summary for Class 1.....	76
3.2 Class 2: Figure reflexives with <i>-st</i> as an expletive argument.....	78
3.2.1 Obligatory prepositional phrases in Class 2 <i>-st</i> -marked figure reflexives.....	79
3.2.2 Impersonal passives of Class 2 <i>-st</i> -marked figure reflexives.....	80
3.2.3 <i>-st</i> -marked vs. unmarked figure reflexives in Class 2.....	81
3.2.4 Absent prepositional phrases allow non-reflexive interpretations for unmarked Class 2 verbs .....	82
3.2.5 Impersonal passives of Class 2 unmarked figure reflexives.....	83
3.2.6 Summary for Class 2.....	85
3.3 Class 3: Figure reflexives with properties of derived-subject unaccusatives .....	87
3.3.1 Optional prepositional phrases in Class 3 <i>-st</i> -marked figure reflexives .....	88
3.3.2 Impersonal passives of Class 3 <i>-st</i> -marked figure reflexives.....	89
3.3.3 <i>-st</i> -marked vs. unmarked figure reflexives in Class 3.....	90
3.3.4 Summary for Class 3.....	92
3.4 Chapter summary .....	93
Chapter 4. Further implications and future directions .....	95
4.1 Additional topics.....	95
4.1.1 The variable interpretation of verb roots .....	95
4.1.2 Simultaneously expletive Voice and <i>p</i> .....	100
4.1.3 Thoughts on <i>-st</i> as a head vs. specifier .....	106
4.2 Future directions .....	110
4.2.1 Extending the present study .....	110
4.2.2 Derivation of anticausatives in Icelandic and Kannada.....	113
4.3 Concluding Remarks.....	115
References.....	119
APPENDIX 1: List of <i>-st</i> verbs of motion.....	124
APPENDIX 2: Survey question format .....	125
APPENDIX 3: Sample follow-up interview questions.....	129
APPENDIX 4: Dataset.....	130
APPENDIX 5: Result tables for each verb root.....	145
APPENDIX 6: Summary of the implications of the results .....	158

## List of Tables

Table 1. Summary of the features of Voice and <i>p</i> .....	5
Table 2. Predictions made by three possible analyses of <i>-st</i> figure reflexives .....	13
Table 3. Properties of three major classes of <i>-st</i> figure reflexives.....	14
Table 4. Underspecification of <i>-st</i> based on position and distribution of head allosemes	16
Table 5. Transitive verbs with intransitive counterparts (Thráinsson, 2007, p. 288) .....	44
Table 6. The features of Voice and <i>p</i> and their interaction with <i>-st</i> .....	51
Table 7. Predictions made by three analyses of Icelandic figure reflexives.....	54
Table 8. Complementary distribution of diagnostics in three classes of Icelandic figure reflexives.....	55
Table 9. Categorization of <i>-st</i> verbs of motion into classes.....	55
Table 10. Predictions made by the unergative analysis .....	56
Table 11. Diagnostic behaviour of Class 1 verb roots .....	57
Table 12. Distribution of phenomena for Group 1 <i>-st</i> -marked and unmarked figure reflexives.....	68
Table 13. Acceptability judgements for Class 1A .....	76
Table 14. Acceptability judgements for Class 1B .....	77
Table 15. Acceptability judgements for Class 1C .....	77
Table 16. Predictions made by the expletive argument analysis .....	78
Table 17. Diagnostic behaviour of Class 2 verb roots .....	79
Table 18. Acceptability judgements for Class 2 .....	86
Table 19. Predictions made by the derived subject analysis.....	87
Table 20. Diagnostic behaviour of Class 3 verb roots .....	88
Table 21. Acceptability judgements for Class 3 .....	92
Table 22. Summary of <i>-st</i> position and head alloseme distribution for each class.....	94
Table 23. Options for simultaneously expletive Voice and <i>p</i> .....	100
Table 24. Implications of the results for verbs with <i>-st</i> .....	117
Table 25. Positions for <i>-st</i> and the distribution of head allosemes .....	118

## List of Figures

<i>Figure 1.</i> Map of Iceland.....	25
--------------------------------------	----

## List of Abbreviations

- EXPL: expletive subject  
-ST: *-st* morpheme  
NOM: Nominative case  
ACC: Accusative case  
F: Feminine grammatical gender  
M: Masculine grammatical gender  
N: Neuter grammatical gender  
S: singular number  
PL: plural number  
PAST: past tense  
POSTP: post-position  
VR: verbal reflexive morpheme  
TVR: transitive verbal reflexive morpheme  
 $\sqrt{\text{VERB}}$ : verb root (usually Icelandic, with 'English gloss' beside it)  
\* : ungrammatical  
# : semantically odd  
% : speaker variation  
\*? : marginally acceptable  
?\* : would be grammatical with context  
\*( x ) : ungrammatical if variable item in brackets is excluded  
(\* x ) : ungrammatical if variable item in brackets is included

## Acknowledgments

As my supervisor and mentor, Dr. Martha McGinnis has had a massive impact not only on the development of this thesis but on course of my life. I am so grateful to Martha for noticing me in LING311 and encouraging me to take LING411 the next semester, for introducing me to research in the summer of 2015, for suggesting that I apply for the MA program at UVic, and then encouraging me to apply for a PhD program at U of T. Martha's support has proved to be a powerful counter-balance for self-doubt over the years, allowing me to find my path and making everything possible along the way. Here, I must thank Martha for sharing in the baffling and slightly gross (though quite funny in retrospect) bird situation. Most of all, thank you to Martha for your guidance and mentorship in every domain, for reading and providing incredible feedback on a massive number of pages of my work, and for your patience, humour, stories, understanding, advice, and inspiration at every turn.

To Dr. Leslie Saxon, I can't thank you enough for being my committee member and mentor in so many different roles throughout the past few years. Leslie was my mentor in my first experience as a teaching assistant for LING311, where she introduced me to the joy of working with students as they learn about syntax. As our professor for LING531 and LING508, Leslie taught us not just about the course material but about educating as a whole and open person, with empathy, flexibility, engagement, patience, and laughter. While working as a research assistant on the project "*Délnę Gonáoweré Gogodí: Conversing with Community, Land, and Creator*", Leslie, Fiebbie Tatti, Keren Rice, and Jasmine Spencer taught me about the gift of feedback, the vital importance of stories, the different ways how to find one's path in life, and when to slow down in a conversation, among so many other things. Leslie may also be the very best in the world at email signoffs, my recent favourite has been "Cooking broccoli, Leslie".

To Dr. Catherine Léger, thank you so much for taking the time to be my external examiner, and for your flexibility working around a significant difference in time-zones for both the proposal defense and the thesis defense, and for your beautifully detailed and careful feedback on my final draft! To Catherine, Leslie, and Martha, thank you all so much for reading this work, and for all of your feedback, advice, support, and time over these years.

Thank you so much to the people who shared their time, knowledge, and insight as native speakers of Icelandic while reviewing and participating in this work. Thank you to Katrin Steinhorsdottir, Gunnar Ólafur Hansson, Gísli Rúnar Harðarson, Lilja Karen, Oddur Örn Ólafsson, K.V., S.S.F., and those who participated anonymously. Thank you also to Prof. Johannes Jóhannes Gísli Jónsson for providing crucial feedback on the first version of the survey and for distributing the survey to many of the people who participated.

None of the work presented in the following thesis would be possible without the preceding work of Dr. Jim Wood. Wood's 2012 doctoral thesis (published as a book in 2015) on the syntax of Icelandic *-st* was the major inspiration for this work, and the

theoretical assumptions and analyses presented in Wood (2015) and extended by Wood and Marantz (2017) as the *i\** hypothesis are of central importance here. The arguments presented in this thesis are intended to build alongside or upon these preceding analyses with great respect.

Thank you to the Social Sciences and Humanities Research Council of Canada (SSHRC) for funding my MA work through a Canada Graduate Scholarship (CGS-M) through 2019-20. In 2019 and 2020, I was so fortunate to receive the University of Victoria Margaret and Richard Beck Student Research Travel Award, which is intended to support student travel to Iceland to study an aspect of Icelandic language. This allowed me to take an intensive Icelandic language course at the Tin Can Language Factory in Reykjavik, make connections with Icelandic linguists and language teachers, experience the natural beauty of the land, and acquire my own copy of Thráinsson's (2007) '*The Syntax of Icelandic*'. Thank you so much to the donors of the UVic Margaret and Richard Beck Student Research Travel Award for making such things possible.

My love for linguistics was shaped by the professors and instructors that I had throughout my undergraduate and graduate course work. Alongside Dr. McGinnis and Dr. Saxon, I would like to thank (alphabetically) Sonya Bird, Heather Bliss, Ewa Czaykowska-Higgins, Sandra Kirkham, Hua Lin, Megan Lukaniec, Dave McKercher, and Suzanne Urbanczyk from the Linguistics Department. I would also like to thank Clay Holroyd and Sepideh Heydari from the Psychology Department for teaching me about ERP research and helping me find a blue thumb. I am also grateful to all the professors and instructors in the department who I did not happen to take courses with, including Alex D'Arcy who was a strong force in my decision to apply to U of T, and Jasmine Spencer for demonstrating how to navigate the post-doctoral stages of an academic career with kindness, humour, and deep caring for the work and others. Thank you to our graduate secretaries Jenny Jessa, Maureen Kirby, and Emmanuelle Guenette for seeing the best in us grad students and for looking out for us in all matters (often solving problems before we even knew they existed); whether they were administrative, space-related, printer-related, or personal.

A major highlight of my graduate experience was going through it all with my cohort members Caroline, Emmanuelle, Mitchell, Rain, and Reza, and classmates in other cohorts including Andrea, Amber, Chloë, Junyu, Kate, Keun, Mona, Monica, Morgan, Pam, Paul, Sajib, Tess, Vahid and Yi. Much food, tea, great music, advice, support, collaboration, laughter, and understanding was shared between us all and I can't imagine what it would have been like without you. Aliya Z, Bukola A, Junyu W, and Yi W were student members of the Syntax Reading Group held by Dr. McGinnis; I am so grateful to them for sharing their work and their comments on my own, it was so much fun to get together with others who delight in trees! Arian, Laura, Laurence, Monica, Jasmine, Ethan, Rory, Kaleigh, Caleigh (co-builder of Lumpy the model), Alyna, Kyle, Mykaila, and Janet are among many wonderful friends that I met while in undergrad that I am so grateful for as they made me feel at home in the linguistics department. Over the years during and after our time together at UVic, we've spent countless hours together studying, eating (usually ice-cream), and hanging out both on and off campus in various

sets. Thank you to the students that I have worked with throughout my MA, who have been a constant source of joy, motivation, inspiration, and immense personal growth (particularly those who were my first students in LING311 in 2019 and the cohort who endured me throughout the pandemic for LING203, 311, and 309). While working with all of you, you provided me with a sense of purpose and personal direction, which was especially crucial throughout 2020 and 2021.

Outside of linguistics, I am so grateful to my friends and family. To Ella, Nicole, Sam, Maddie, and Hannah BE; thank you all for the laughter, the A+ tv show recommendations, the talking walks, snacks, for always understanding, and for being my friends for a very long time. Thank you to Tash, Alisa, and Claire for all these things as well; and for with living with me for a good while (forever wark). To Joel and Alex, thank you for days and nights of awesome food, sharing stories, camping, beautiful views, and other adventures. To Alex especially, thank you so much for your sharing curiosity about Icelandic and linguistics, providing crucial motivation and inspiration. Whenever I ran into problems while writing this thesis, I was often able to work through them by imagining that we were talking about them. Thank you all for being my friends.

Thank you to my family as a whole for being there and for the unconditional love. Thank you to my mom (Colleen) for passing down her tiny handwriting, love of learning, and ability to go *so fast*. Thank you to my dad (Walter, or *Dodo* in the Moser idiolect) for passing down the stories of Schtumpa and the three snails, and a fondness for desserts (including a capacity to eat a ridiculous amount of ice-cream). Thank you to Liam (my brother) for being my 2:00am grilled-cheese buddy, for always making me laugh, for telling me fun facts, and for being the best part of growing up together. Thank you to my awesome cousins on both sides for advice, laughter, and shared travels over the years. To Oma (Clara) and Opa (also Walter), thank you for passing down your love of language and music, your recipes, and for sharing the stories of our family in Austria. Thank you to Grandma (Madonna) and Grandpa (also also Walter), for being perfect examples of curious, caring, and adventurous spirits, and for demonstrating that one can be a ski-instructor in their 80s. To Sharon and Garry and all the members of the Bergman and Beppe crews, thank you for the years of love, support, and family board game nights. To JR most of all; thank you for making me laugh, for maintaining the balance, and for being my best friend and partner throughout it all.

**Dedication**

*To Oma and Opa*

*With love and admiration*

## Preface

The aim of this preface is to provide a window into the present thesis by discussing the puzzles and motivations that inspired its development<sup>1</sup>.

My interest in Icelandic syntax was sparked by an undergraduate course in advanced syntactic analysis taught by Dr. Martha McGinnis, in which I wrote a term paper on passives of reflexives in German and Icelandic. Remembering this interest, Dr. McGinnis introduced me to the work of Wood (2015) as I started my MA in 2018. Among many other things, Wood (2015) demonstrates that the Voice head and the *p* head can be semantically empty in Icelandic by virtue of lacking a feature that projects a specifier, or by virtue of their specifier position being occupied by an expletive *-st* morpheme which cannot bear a semantic role. Wood makes note of the theoretical possibility for both heads to be expletive at the same time, though the position of *-st* in this context is not clear, as two positions exist for *-st* in such cases. These include a high position associated with Voice, and a low position associated with *p*. Initially, the puzzle that drew me into *-st* was whether this theoretical possibility of simultaneously expletive Voice and *p* occurs empirically in Icelandic, and if so, which position for *-st* is supported by the evidence. Wood (2015, pp. 201-203) presents diagnostic tests for each position, though the construction of diagnostic example sentences in Icelandic turned out to be too ambitious for me to achieve as a person who does not speak Icelandic. This topic is discussed among directions for future work in Chapter 4.1.2.

---

<sup>1</sup> The theoretical framework adopted and assumptions made are discussed in Chapter 1 of the thesis, and explanations of the key terms are in Chapter 2.

The present thesis topic began to take shape in the spring of 2019, when the work of Wood and Marantz (2017) was covered in a directed studies course with Dr. McGinnis. Under the expletive argument analysis (Wood, 2015), the head *p* can introduce the FIGURE<sup>2</sup> of an embedded prepositional phrase such as *lemon* in *Jo squeezed lemon into the tea*. Wood and Marantz (2017) analyze *p* as a head that can introduce a specifier position and can allow Icelandic *-st* to merge instead of a DP. It introduces a FIGURE role if its *pP* complement designates a situation<sup>3</sup> that implies a figure. As illustrated in (1), as *-st* cannot bear a thematic role, the FIGURE role is combined with the AGENT role. The two thematic roles identify with each other and are saturated by *Bjartur* when it merges in Spec-VoiceP. As *Bjartur* is both the AGENT and the FIGURE, sentences like (1) have a reflexive-like interpretation.

- (1) Bjartur                      tróðst                      gegnum                      mannþröngina  
 Bjartur.NOM                      squeezed-ST                      through                      crowd.the  
 ‘Bjartur squeezed through the crowd.’  
(Wood & Marantz, 2017: 12)

As such, the expletive argument analysis predicts that the prepositional phrase is necessary for a figure reflexive interpretation in sentences like (1). In the early stages of this thesis, I aimed to test this prediction by determining whether a figure reflexive interpretation is possible in sentences like (2) for a set of *-st* verbs of motion.

- (2) Bjartur                      tróðst  
 Bjartur.NOM                      squeezed-ST  
 ‘Bjartur squeezed (himself).’

If figure reflexive interpretations for sentences like (2) were found to be acceptable, an alternative analysis of their structure would be necessary. At the ACL-CLA

<sup>2</sup> As in the FIGURE/GROUND terminology of Talmy (1975), by which *the tea* would be the GROUND here.

<sup>3</sup> The term *spatial state* is used instead in Wood and Marantz (2017).

(L'Association canadienne de linguistique/Canadian Linguistic Association) Congress in 2020, Dr. McGinnis and I presented a proposal that *-st* figure reflexives are syntactically unergative if they can occur in impersonal passives and do not require a prepositional phrase. This was based on the observation that the ability to form impersonal passives qualifies some *-st* verbs such as *berjast* 'fight' as unergatives (Thráinsson, 2007). This motivated the inclusion of judgements of impersonal passives of figure reflexives such as (3), in order to determine if figure reflexives that do not require a prepositional phrase are syntactically unergative or have a derived subject.

- (3) Það var troðist gegnum mannþröngina  
 EXPL was squeezed-ST through the.crowd  
 'There was squeezing through the crowd.'  
 (Wood & Marantz, 2017: 12)

Anderson (1990) notes that some impersonal passives involving unergative *-st* verb roots can occur without a prepositional phrase (4).

- (4) Það er barist  
 EXPL is fought-ST  
 'Someone is fighting.'  
 (Anderson, 1990: 9)

This was the motivation for gathering judgements on sentences such as (5) in the experimental component of this proposal. If it is possible for the impersonal passives of figure reflexives to lack a *pP*, this would further support the hypothesis that figure reflexives are unergative and lack a syntactically present FIGURE role.

- (5) Þá var troðist  
 then was squeezed-ST  
 Intended: 'Then there was squeezing (of oneself).'

At the stage of the thesis proposal defense in the fall of 2020, the aim was to summarize the mechanics of Wood's (2012) expletive argument approach to the argument structure of *-st* anticausatives and figure reflexives, further defined in Wood

and Marantz (2017). This approach to Icelandic *-st* would then be compared to the unergative (described in Chapter 1.3.2) and derived-subject (described in Chapter 1.3.3) analyses, based on the results of the proposed methodology.

While writing the literature review and considering the interactions between verb root meanings, the *-st* morpheme, prepositional phrases, and the FIGURE role in creating a figure reflexive meaning, I became puzzled by Wood's (2015) observation that some verb roots can occur in both *-st*-marked and unmarked figure reflexives, as in (6), where the *-st*-marked figure reflexive can make use of a non-literal interpretation of the verb root  $\sqrt{\text{HLAUP}}$  'run'.

- (6) a. Sigga hljóp á brott með Jóni (# til að giftast honum)  
 Sigga ran a way with John (# for to marry him)  
 'Sigga ran away with John (#in order to marry him).'  
 (physically running)
- b. Sigga hljópst á brott með Jóni (til að giftast honum)  
 Sigga ran a way with John (for to marry him)  
 'Sigga ran away with John (in order to marry him).'  
 (not necessarily physically running)

(Wood, 2015: 194)

Based on this, the survey was modified to include questions about unmarked figure reflexives, unmarked figure reflexives that lack prepositional phrases, impersonal passives of unmarked figure reflexives, and impersonal passives of unmarked figure reflexives that lack prepositional phrases that could be compared to the parallel questions regarding *-st*-marked figure reflexives.

After making these changes to the survey, an interesting result occurred in the reviewer phase of the study in the spring of 2021. For two verb roots, a reviewer found figure reflexives to be ungrammatical, though the corresponding impersonal passives were found to be acceptable. After discussing this with Dr. McGinnis, it became clear

that the acceptable impersonal passives could be double passives of transitive actives, rather than those of figure reflexives. For this reason, non-reflexive transitive interpretations of the example sentences were included in the final version of the survey.

An example of this is shown in (7).

- (7)a. Bjartur tróðst gegnum mannþröngina  
 Bjartur.NOM squeezed-ST through crowd.the.ACC  
 ‘Bjartur squeezed through the crowd.’  
 \*‘Bjartur squeezed (something) while moving through the crowd.’
- b. Bjartur tróðst  
 Bjartur.NOM squeezed-ST  
 ‘Bjartur squeezed (himself).’  
 \*‘Bjartur squeezed (something).’

The results of the final version of the survey form the basis of the analysis presented in the present thesis, which divides a set of *-st* figure reflexives into three classes. The first class includes verb roots best accounted for with an unergative analysis (Chapter 1.3.2). This class is then subdivided based on whether the roots can occur in *-st*-marked figure reflexives, unmarked figure reflexives, or both. The second class of verb roots is best accounted for with an expletive argument analysis (Chapter 1.3.1). The third class includes roots that are best accounted for under a derived-subject (unaccusative) analysis (Chapter 1.3.3). It should be noted that there seems to be substantial variability in the acceptability judgements across speakers for many of the verb roots examined. Also, any mistakes or errors are my own responsibility.

## Chapter 1. Introduction:

### Overview, Assumptions, and Methodology

The present thesis examines the argument structure of Icelandic figure reflexive constructions, as in (1). In (1), *Bjartur* is both the entity that is semantically the agent of *squeezing* and the semantic figure, the entity that gets *squeezed through the crowd*.

(1) Bjartur                      tróðst                      gegnum                      mannþröngina  
 Bjartur.NOM                      squeezed-ST                      through                      crowd.the  
 ‘Bjartur squeezed through the crowd.’

A transitive counterpart of (1) is shown in (2), where the verb root occurs without *-st*. In (2), *Bjartur* is only the entity that is the semantic agent of *squeezing*, as *the pencils* are the entities that are *squeezed into the bag*.

(2) Bjartur                      tróð                      blýöntunum                      í                      pokann  
 Bjartur.NOM                      squeezed                      pencils.the.DAT                      in                      bag.the  
 ‘Bjartur squeezed the pencils into the bag.’

(Wood & Marantz, 2017: 12)

I will argue that Icelandic *-st* figure reflexives are a heterogeneous set that can be divided into three classes, based on the analysis that best accounts for their structure. These include an expletive argument analysis, described in Section 1.3.1, an unergative analysis described in Section 1.3.2, and a derived-subject (unaccusative) analysis, described in Section 1.3.3.

Evidence for these analyses is presented in Chapter 3; it is based on whether prepositional phrases like *through the crowd* are required for a figure reflexive reading and whether impersonal passives of the *-st* figure reflexives are possible, with and without prepositional phrases (PPs).

## 1.1 Overview of the thesis

This thesis begins with a discussion of the theoretical framework used and assumptions made, in the remainder of this chapter. This chapter continues with a description of the methodology used to gather new evidence for the proposed analysis. This is followed by a brief description of three analyses of *-st* clauses in Icelandic, which I will refer to as the expletive argument analysis, the unergative analysis, and the derived-subject analysis. These are largely based on the analysis of Icelandic *-st* presented by Wood (2015<sup>4</sup>) and the analyses of French reflexive *se* presented by Sportiche (1990) and Labelle (2008), respectively. After this, I introduce an underspecification analysis of Icelandic *-st*. This analysis is based strongly on preceding work that unifies Icelandic *-st* anticausatives and figure reflexives through an expletive argument analysis (Wood, 2015; Wood & Marantz, 2017). Through testing predictions made by the expletive argument analysis, the derived-subject analysis, and the unergative analysis, the novelty of the present analysis comes from the recognition of the heterogeneous nature of the structure of Icelandic figure reflexives.<sup>5,6</sup>

Chapter 2 provides a review of the background literature. This will include a review of key concepts such as *expletives*, *verbs of motion*, and *prepositional phrases*. This is followed by a brief description of the Icelandic language, with emphasis on features and phenomena that are relevant to the present analysis, including *passives* (including

---

<sup>4</sup> Note that Wood (2015) is the published version of Wood's (2012) doctoral dissertation.

<sup>5</sup> It should be noted that past work (such as Anderson, 1990; Thraínsson, 2007; Wood, 2015) has established that *-st* verbs can occur in unergatives, unaccusatives (including anticausatives), middles, reflexives, and reciprocals, and some analyses (such as Anderson, 1990; Thraínsson, 2007) divide *-st* verb roots into categories based on the structures they can occur in. To my knowledge, this thesis presents the first evidence and argument for an analysis that subdivides Icelandic figure reflexives (as defined by Wood, 2015) into three distinct structural classes.

<sup>6</sup> For ease of reference, all three members of the heterogenous set will be referred to generally as *figure reflexives* throughout this work, relying on context and labelling to distinguish them.

*impersonal passives*), *reflexives*, *middles*, *unaccusatives* (including *anticausatives*), and *unergatives*. A significant portion of Chapter 2 summarizes the mechanics of Wood's (2015) expletive argument analysis of the argument structure of *-st* anticausatives and figure reflexives, further defined in Wood and Marantz (2017).

Chapter 3 presents the arguments for the underspecification analysis. Based on an investigation of Icelandic argument structure, the present analysis subdivides the set of *-st* verbs of motion into three categories: those that are unergative, those that involve an expletive argument, and those that have derived subjects. One variable that distinguishes the categories is whether the prepositional phrase is truly obligatory for figure reflexive interpretations for the set of *-st* verbs of motion. Another class-distinguishing variable is whether *-st* can be present in impersonal passives of figure reflexives, and whether a prepositional phrase is obligatory in this context. I also consider whether the verb roots can occur in unmarked figure reflexives as well as *-st*-marked figure reflexives, and whether the roots allow non-reflexive interpretations.

In Chapter 4, I address issues that arise in the earlier chapters and introduce potential directions for future work.

## 1.2 Assumptions

I adopt the Minimalist program for syntactic theory (Chomsky, 1995, 2001, 2002, 2007). A Distributed Morphology (DM) approach to the architecture of the grammar is adopted. Under a DM approach, there is post-syntactic Vocabulary Insertion of the morphological and semantic realizations of terminal nodes<sup>7</sup>, including functional heads (Halle & Marantz, 1993, 1994; Wood, 2015). Morphemes are assumed to be semantically and

---

<sup>7</sup> These morphological realizations are also referred to as *allomorphs* or *vocabulary items*, and the semantic realizations are also referred to *allosemes*.

syntactically underspecified under a DM approach (Kim, 2011). Following Pykkänen (2008)<sup>8</sup> and Wood (2015), I assume the head *p* (Svenonius, 2003, 2008) and a distinction between the heads *v* and Voice (Kratzer, 1996). Following Wood and Marantz (2017), I assume that the heads Voice and *p* are contextually distinguished variants of a single argument-introducing head (*i*\*)<sup>9</sup>, but for the purposes of this thesis they will be mostly referred to as Voice and *p* (Wood & Marantz, 2017). I assume that PP is dominated by *p*P, which is the result of *i*\* merging with that PP.

Voice can introduce an agentive external argument such as *Jo* in *Jo spilled the tea*. Introducing the agent consists of two relations, the c-selection of the DP itself and the association of this DP with the AGENT thematic role. Wood and Marantz (2017) analyze Voice as an *i*\* attaching to vP. If its vP complement designates an event that implies an agent, it introduces an AGENT role (Wood & Marantz, 2017).

The head *p* can introduce what Wood and Marantz (2017) call the external argument of an embedded prepositional phrase, such as *lemon* in *Jo squeezed lemon into the tea*. As with Voice, this introduction consists of two relations, the c-selection of the DP and the association of this DP with the FIGURE role. Wood and Marantz (2017) analyze *p* as an *i*\* that merges with a PP<sup>10</sup>. Parallel to Voice, it can introduce a specifier position. It introduces a FIGURE role if its PP complement designates a situation<sup>11</sup> that implies a figure.

---

<sup>8</sup> Note that Pykkänen (2008) is the published version of Pykkänen's (2002) doctoral dissertation.

<sup>9</sup> The heads *P*, *appl*, and *Appl* (corresponding to Pykkänen's (2008) low and high *Appl*) are also examined by both Wood (2015) and Wood and Marantz (2017) and are assumed to be variants of *i*\*, though they will not be discussed at length. They were excluded to focus on the observations immediately relevant to the present thesis.

<sup>10</sup> More specifically, Wood and Marantz (2017) analyze *p* as an *i*\* that can merge with a category-neutral lexical root or with another *p*P.

<sup>11</sup> Referred to by Wood and Marantz (2017) as a spatial state.

The structural parallels between Voice and *p* are summarized in Table 1. These parallels can be accounted for by assuming that Voice and *p* are structural variants of the same syntactic head, *i*\*.

**Table 1. Summary of the features of Voice and *p***

<i>Voice</i>	<i>p</i>
<ul style="list-style-type: none"> <li>• <i>i</i>* attaching to vP</li> <li>• can introduce an external argument DP</li> <li>• introduces AGENT role if vP complement denotes an event that implies an agent</li> </ul>	<ul style="list-style-type: none"> <li>• <i>i</i>* attaching to PP</li> <li>• can introduce DP external argument of <i>p</i>P</li> <li>• introduces FIGURE role if PP complement denotes a spatial state that implies a figure</li> </ul>

Following Wood and Marantz (2017), the head *i*\* is shorthand for a feature bundle that includes an unspecified categorial feature (CAT) and a selectional feature (S) that selects for the category D, as represented in (3). In order for the selectional feature to be checked, the categorial feature needs to be valued.<sup>12</sup> The categorial feature is valued in accordance with the first constituent it merges with, which can be a lexical root or an XP.

$$(3) \quad i^* = \{[CAT: \_], [S:D]\} \quad (\text{Wood \& Marantz, 2017: 4})$$

In general, the function of *i*\* is to introduce external arguments of phrases such as vPs and *p*Ps. The syntactic and semantic properties of *i*\* are discussed further in Chapter 3.

### 1.3 Syntactic analyses of Icelandic *-st* figure reflexives

In this section, I introduce three possible syntactic analyses of Icelandic *-st* figure reflexives. These include an expletive argument analysis (1.3.1), an unergative analysis (1.3.2) and a derived-subject analysis (1.3.3). These three analyses each account for a

<sup>12</sup> Wood and Marantz (2017, p. 5) say that this is descriptively accurate in the context of their study.

subset of the *-st* figure reflexives examined in this thesis, as presented briefly in Section 1.4 and more extensively in Chapter 3.

### 1.3.1 An expletive argument analysis of Icelandic *-st*

The Icelandic morpheme *-st* developed diachronically from the reflexive pronoun *sik*, corresponding to the present-day reflexive pronoun *sig* (Wood, 2015). Following Sigurðsson (1989, 2012), Wood (2015) analyzes *-st* as a clitic that occupies an argument position, attaching to the verb for morphophonological purposes. It appears in reciprocal, reflexive, anticausative, and generic middle clauses, which are discussed in Chapter 2. Of these, figure reflexive clauses such as (4a) and anticausative clauses such as (4b) will be the most relevant to the present work.

- (4) a. Bjartur                      tróðst                      gegnum                      mannþröngina  
       Bjartur.NOM                squeezed-ST                through                      crowd.the  
       ‘Bjartur squeezed through the crowd.’  
(Wood, 2015: 174)

- b. Glugginn                      opnaðist                      af                      sjálfu sér.  
       window.the.NOM                opened-ST                by                      itself  
       ‘The window opened by itself.’  
(Wood, 2015: 62)

It is common for *-st* verbs to require a preposition that is not obligatory for non-*st* uses of the same verb (Sigurðsson, 1989; Wood, 2015). This is seen in (5b) as compared to (5a), and (6b) as compared to (6a). The complement of the preposition can be a finite or infinitival clause; in (5) the complement is a finite clause. It can also be a DP, as in (6). The relationship between the meaning of the *-st* verbs and their non-*st* counterparts is idiosyncratic, as seen in (6a) compared to (6b) (Wood, 2015).

- (5) a. Ég vona (\*til) að ég nái profinu  
       I hope (\*for) that I pass exam.the  
       ‘I hope that I will pass the exam.’

b. Ég vonast \*(til) að ég nái prófinu  
 I hope-ST \*(for) that I pass exam.the  
 ‘I hope that I will pass the exam.’

(6) a. Börnin sækja sælgæti  
 children.the.NOM get candy  
 ‘The children get candy.’

b. Börnin sækjast \*(i) sælgæti  
 children.the.NOM get-ST \*(to) candy  
 ‘The children try to get candy.’ (Wood, 2015: 63)

Wood (2015) analyzes Icelandic *-st* as an expletive DP<sup>13</sup> that merges in a syntactic argument position, effectively reducing the number of arguments introduced by the verb it attaches to. By Wood’s (2015) analysis, there are two routes to *-st* derivations in Icelandic. By the first route, argument-introducing heads can remain without a specifier (represented as  $\text{Voice}_{\{\}}\text{}$ ,  $\text{Appl}_{\{\}}\text{}$ , and  $p_{\{\}}\text{}$ ) instead of combining in the lexicon with a feature that requires the projection of a syntactic specifier (giving  $\text{Voice}_{\{D\}}\text{}$ ,  $\text{Appl}_{\{D\}}\text{}$ , and  $p_{\{D\}}\text{}$ ) (Wood, 2015). By the second route, the heads that do project specifiers can have their specifier position filled by an expletive element that is unable to bear a thematic role. This is the case in *-st* figure reflexives as in (7), where the nature of the valency variation is dependent upon which argument position the *-st* expletive first merges into.<sup>14</sup>

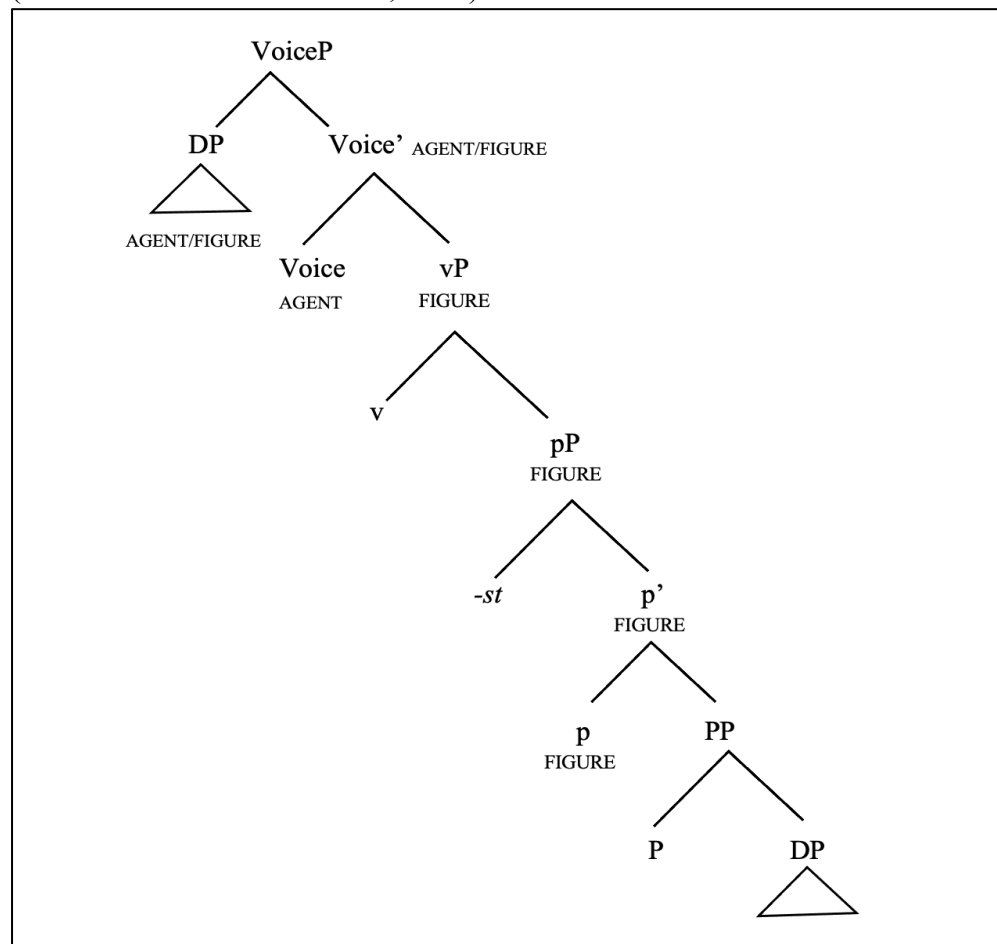
(7) Bjartur tróðst gegnum mannþröngina  
 Bjartur.NOM squeezed-ST through crowd.the  
 ‘Bjartur squeezed through the crowd.’  
 (Wood & Marantz, 2017: 12)

<sup>13</sup> Morphologically, *-st* is analyzed as a clitic in Wood (2015).

<sup>14</sup> As it is common for *-st* verbs to require a preposition that is not obligatory for non-*-st* uses of the same verb, McGinnis (2021, personal communication) notes that *-st* could be thought of as an antipassive morpheme. This is supported by Wood (2015, p. 200), who notes that the demotion of internal arguments to oblique DPs or *p*Ps is syntactically identical to the formation of figure reflexives. Figure reflexives and antipassives would then differ in terms of their thematic interpretation; when  $p_{\{D\}}\text{}$  is thematic and paired with *-st* as its specifier, the result is a reflexive interpretation. When  $p_{\{D\}}\text{}$  is thematically expletive, a demoted DP occurs.

A diagram that outlines a simplified structure of figure reflexives under the expletive argument analysis is shown in (8). An expanded diagram is presented in Chapter 2.3.5.

(8) Simplified structure of a figure reflexive on the expletive argument analysis (based on Wood and Marantz, 2017)



There are possible alternative analyses of Icelandic *-st* figure reflexives, as presented in the following sections 1.3.2 and 1.3.3.

### 1.3.2 An unergative analysis of Icelandic *-st*

An unergative analysis of Icelandic *-st* is outlined in this section, largely based on the unergative analysis of French reflexive *se* presented in Labelle (2008). Labelle (2008)

analyzes the French reflexive *se*<sup>15</sup> as an unergative Voice head that introduces the external argument. Similar analyses for reflexives in a variety of languages are proposed by Alsina (1996), Reinhart and Siloni (2004), Siloni (2008), Chierchia (1989, 2004), Grimshaw (1982), and Reinhart (1997).

Under the unergative analysis, no direct object is syntactically projected, and the external argument determines the reference of the object theta role. By this analysis of French reflexive *se*, there is no internal argument present in a reflexive clause, as the presence of the clitic *en* is indicative that the corresponding argument is internal<sup>16</sup> and the reflexive interpretation of (9) is not possible with *en* (Labelle, 2008; Reinhart & Siloni, 2004 on parallel facts in Hebrew).

- (9) Il s' en est lavé beaucoup dans ces douches publiques récemment  
 EXPL SE-of.them are washed many in these showers public recently  
 'Many of them were washed in these public showers recently.'  
 \*'Many of them washed themselves in these public showers recently.'  
 (Labelle, 2008: 870)

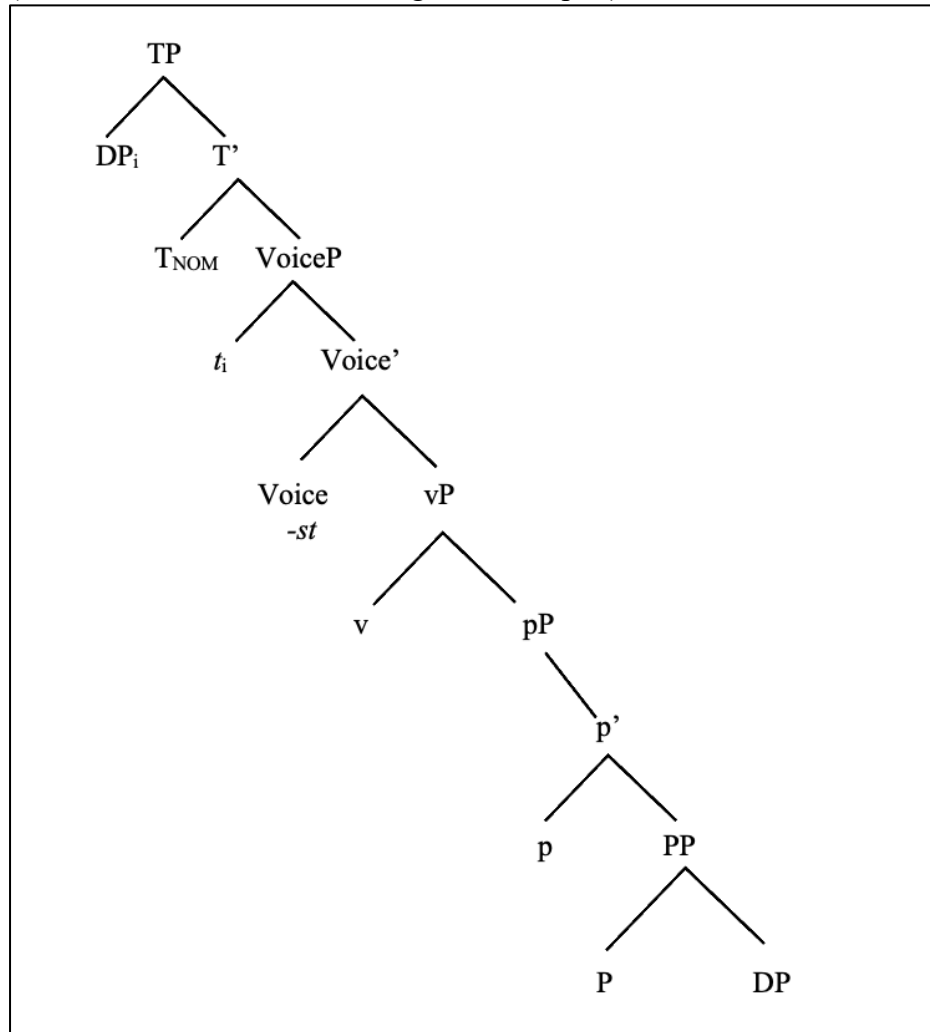
An extension of this analysis to Icelandic *-st* figure reflexives will be referred to as the unergative analysis throughout the present thesis. Under the unergative analysis, *-st* would be treated as a Voice head that introduces the external argument but does not syntactically project a direct object. The referent of the object theta role is determined by the external argument. A diagram of the structure associated with the unergative analysis is presented in (10).

---

<sup>15</sup> French reciprocal *se* is also analysed in this way.

<sup>16</sup> Under this analysis, though other analyses are possible.

(10) Simplified diagram of the unergative analysis of figure reflexives  
(based on Alboiu, Barrie, & Frigeni, 2004, p. 4)



This unergative analysis exists in contrast with a derived-subject (unaccusative) analysis, which is discussed in the following section.

### 1.3.3 A derived-subject analysis of Icelandic *-st*

This section outlines an analysis of Icelandic *-st* that is largely based on the analysis of French reflexive *se* presented by Sportiche (1990), in which *se* is analyzed as a reflexive morpheme. Works that argue for a similar derived-subject (or unaccusative) analysis include Andrews (1982), Grimshaw (1982), Marantz (1984), Kayne (1988; as cited in

Alboiu et al., 2004), Pesetsky (1995; as cited in Alboiu et al., 2004), and McGinnis (1998; 2000), among others.

Under this analysis of French reflexive *se*, the internal argument raises to the subject position and binds the reflexive external argument *se*, which receives the external theta role. While sentences like (11) are grammatical as middles (discussed in Chapter 2.2.4) that have a passive-like interpretation, they are not grammatical as reflexives involving *se* in impersonal clauses.

- (11) Il s'en rasait beaucoup, de soldats  
 EXPL SE-of.them shaved many of soldiers  
 'Soldiers, many of them were being shaved.'  
 \* 'Soldiers, many of them shaved themselves.'

(Sportiche, 1990: 150)<sup>17</sup>

Under this derived-subject analysis, the reflexive interpretation is not possible because the reflexive anaphor is not c-commanded by its antecedent (Sportiche, 1990). The internal argument would need to overtly raise to the subject position to satisfy Binding Principle A at S-structure for this to be possible (Sportiche, 1990).

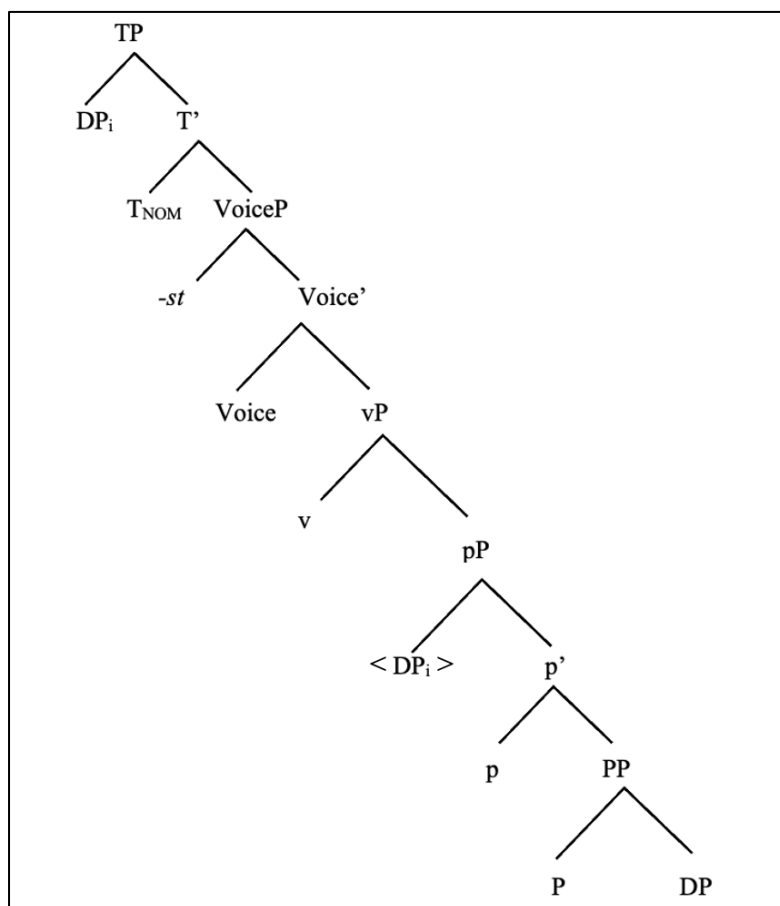
An extension of this analysis to Icelandic *-st* figure reflexives is referred to as the derived-subject analysis throughout the present thesis. Under the derived-subject analysis, Icelandic *-st* in reflexive clauses would be considered a reflexive morpheme that is coindexed with an internal argument. The internal argument would raise to the subject position, receiving an external theta role. A diagram of a figure reflexive under a derived-subject analysis that treats *-st* as a reflexive external argument is presented in (12). Note

---

<sup>17</sup> Morpheme-by-morpheme glosses in (9) and (11) are from McGinnis & Moser (2020). Note that examples such as (11) are also grammatical with other verbs (Labelle, 2008; McGinnis, 2021, personal communication).

that the internal argument is a copy of the DP subject, and that *-st* is a DP anaphor that is coindexed with the DP subject, but not a copy of it.

(12) Diagram of a figure reflexive under a derived-subject analysis (based on Alboiu et al., 2004, p. 4)



#### 1.4 An underspecification analysis

The expletive-argument analysis, unergative analysis, and derived-subject analysis of Icelandic *-st* figure reflexives each make different predictions about whether *-st*-marked figure reflexives can occur without a prepositional phrase or whether they can occur in impersonal passives. Table 2 summarizes how the predicted grammaticality judgements for these key phenomena distribute for each of the three analyses. In Table 2, the symbol ✓ is used to indicate the possibility of the structure associated with the row, such as

figure reflexives, figure reflexives with optional prepositional phrases, impersonal passives of figure reflexives, and impersonal passives of figure reflexives without pPs.

The symbol \* is used to indicate that a structure is not possible.

**Table 2. Predictions made by three possible analyses of -st figure reflexives**

<i>Type</i>	<b>EXPLETIVE ARGUMENT</b>	<b>UNERGATIVE</b>	<b>DERIVED-SUBJECT</b>
<i>Figure Reflexive with pP</i>	✓	✓	✓
<i>Fig. Refl. without pP</i>	*	✓	✓
<i>Impersonal Passive with pP</i>	✓	✓	*
<i>Imp. Pass. without pP</i>	*	✓	*

To interpret Table 2, if figure reflexives are possible and have a non-optional pP, this would imply that an expletive argument analysis best accounts for their structure. Under an expletive argument analysis, it is possible for impersonal passives of figure reflexives to occur, with a non-optional pP. An unergative analysis predicts that the figure reflexives are possible with an optional pP, and that they can occur in impersonal passives. Under an unergative analysis, impersonal passives of figure reflexives would have an optional pP. Under a derived subject analysis, figure reflexives can have an optional pP but cannot occur in impersonal passives.

Based on these predictions, the present analysis subdivides -st figure reflexives into three major categories: Class 1, Class 2, and Class 3. Table 3 shows the properties of each major class based on the distribution of facts presented in Chapter 3, and which analysis best accounts for their structure.

**Table 3. Properties of three major classes of -st figure reflexives**

<i>Class</i>	<b>1</b>	<b>2</b>	<b>3</b>
<i>Analysis</i>	<b>UNERGATIVE</b>	<b>EXPLETIVE ARGUMENT</b>	<b>DERIVED-SUBJECT</b>
<i>Figure Reflexive with pP</i>	✓	✓	✓
<i>Fig. Refl. without pP</i>	✓	*	✓
<i>Impersonal Passive with pP</i>	✓	✓	*
<i>Imp. Pass. without pP</i>	✓	*	*

Class 1 verb roots are divided into three subcategories based on whether they can occur in -*st*-marked figure reflexives, unmarked figure reflexives, or both. Class 1A verb roots can occur in both -*st*-marked figure reflexives and unmarked figure reflexives, including roots like *troðast* ‘squeeze’, *böðlast* ‘struggle’, and *dröslast* ‘drag’<sup>18</sup>. In sentences that contain Class 1A verb roots like (13), for most speakers the *pP* is not required for a reflexive reading and corresponding impersonal passives are acceptable. Based on this, an unergative analysis is supported for sentences that contain Class 1A verbs.

- (13) Bjartur            tróðst            (gegnum            mannþröngina)  
 Bjartur.NOM    squeezed-ST    (through            crowd.the.ACC)  
 ‘Bjartur squeezed through the crowd.’  
 \*‘Bjartur squeezed (something) while moving through the crowd.’

Class 1B roots can only occur in -*st*-marked figure reflexives, including roots like *þvælast* ‘wander’, *læðast* ‘prowl/sneak’, and *skrönglast* ‘move reluctantly’. In Class 1B -*st*-marked figure reflexives like (14), the *pP* is not required and impersonal passive counterparts are possible.

- (14) Bjartur            læddist            (gegnum            mannþröngina)  
 Bjartur.NOM    prowled -ST    (through            crowd.the)  
 ‘Bjartur prowled through the crowd.’

<sup>18</sup> *dröslast* ‘drag’ was in Class 1A for four of the six participants randomly assigned to it, it was in Class 2 for the other two participants.

This suggests that sentences like (14) are syntactically unergative and supports a hypothesis that the FIGURE role does not need to be syntactically present for a reflexive interpretation to occur.

Class 1C includes verb roots like *hlaupast* ‘run/run away’ and *skreiðast* ‘crawl’, where only unmarked figure reflexives like (15) were accepted by the majority of the participants, and not the *-st*-marked variants. For Class 1C verbs, *pPs* are not required and impersonal passives are permitted for sentences like (15). Based on this, an unergative analysis is supported for sentences like (15a).

- (15)a. Bjartur            hljóp    (gegnum            mannþröngina)  
           Bjartur.NOM    ran        (through            crowd.the.ACC)  
           ‘Bjartur ran through the crowd.’
- b. \*Bjartur            hljópst            gegnum            mannþröngina  
           Bjartur.NOM    ran-ST            through            crowd.the  
           ?\*‘Bjartur ran through the crowd.’  
           \*‘Bjartur ran away through the crowd.’

For Class 2 verb roots like *brjótast* ‘break (into/out of)’, *dröslast* ‘drag’, and *staulast* ‘totter (along)’, the *pP* is required for *-st*-marked figure reflexives. Additionally, they can occur in impersonal passives. These results support an expletive argument analysis of sentences that contain Class 2 verbs, like (16).

- (16) a. Bjartur            braust            \*(gegnum            mannþröngina)  
           Bjartur.NOM    broke -ST        \*(through            crowd.the.ACC)  
           ‘Bjartur broke through the crowd.’  
           \*‘Bjartur broke (something) while moving through the crowd.’

Class 3 verb roots include *laumast* ‘sneak’, *ryðjast* ‘shove’, *ryðjast* ‘barge’, and *klöngrast* ‘clamber’. In figure reflexives that contain Class 3 verbs, as in (17), the *pP* is not required for a figure reflexive reading.

- (17) Bjartur            laumaðist        (gegnum            mannþröngina)  
           Bjartur.NOM    sneaked -ST    (through            crowd.the.ACC)  
           ‘Bjartur sneaked through the crowd.’

The key factor that distinguishes Class 3 from Classes 1A, 1B, and 2 is that the impersonal passives of *-st*-marked figure reflexives are not fully acceptable. This supports a derived-subject analysis for sentences such as (17).

Based on this subdivision, I argue that there is underspecification of *-st* morphology between unaccusatives (including anticausatives and Class 3 figure reflexives), unergatives (Classes 1A, 1B, and C), and expletive argument figure reflexives (Class 2). For Class 2 roots that occur in expletive-argument figure reflexives, the figure reflexive interpretation is the result of *-st* merging in the specifier position of an obligatory *pP*, and the subsequent combination of a FIGURE role with the AGENT role, as described in Section 1.3.1 and expanded on in Chapter 2.3. For all other verb roots, which are those in Classes 1 and 3, I propose that the semantics of the root implies that the AGENT is also the FIGURE when combined with the syntactic context of a *pP* (or a discourse context of motion) (McGinnis & Moser, 2020). As this implication that the AGENT is also the FIGURE results in a reading with inherently self-directed motion, it is not necessary for the FIGURE to be introduced in the syntax. Based on the analyses discussed in Sections 1.3.1, 1.3.2, and 1.3.3, a potential underspecification analysis for *-st*-marked figure reflexives is presented in Table 4.

**Table 4. Underspecification of *-st* based on position and distribution of head alloemes**

Structure	Voice head	<i>p</i> head	Position of <i>-st</i>	Subject DP
<i>Unergative</i>	Voice <sub>{D}</sub> - <i>st</i>	optional <i>p</i> <sub>{}</sub>	Voice head	External argument, AGENT role
<i>Expletive argument</i>	Voice <sub>{D}</sub>	obligatory <i>p</i> <sub>{D}</sub>	Spec- <i>pP</i>	External argument, AGENT/FIGURE role
<i>Derived-subject</i>	Voice <sub>{D}</sub>	optional <i>p</i> <sub>{D}</sub>	Spec-VoiceP	Raised internal argument

## **1.5 Methodology**

The methodology for my research involved asking Icelandic speakers to provide judgements of grammatical and semantic acceptability for a set of constructed example sentences. The results form the basis of Chapter 3, which compares the present analysis to an expletive argument analysis (Chapter 1.3.1), an unergative analysis (Chapter 1.3.2), and a derived-subject analysis (Chapter 1.3.3).

### **1.5.1 Participants**

Prior to participant recruitment, the experimental materials were reviewed by two adult native speakers of Icelandic who are fluent in English to determine the appropriateness of the stimuli for the task. The reviewers were recruited through their publicly available contact information and through mutual connections. There was one group of participants, which consisted of 9 adult native speakers of Icelandic who are fluent in English. The participants needed to be adults to provide independent informed consent. They needed to be native speakers of Icelandic so that they could accurately judge the grammaticality of the Icelandic stimuli. To provide and judge English translations of the Icelandic stimuli, they also needed to be fluent speakers of English.

The participants were recruited through emailed letters using publicly available email addresses. The first emails were sent to linguists at Háskóli Íslands (University of Iceland), who then passed along the study information to students and colleagues who might be interested in participating. Some personal contacts who are Icelandic speakers were also invited to pass the study information along to people in their networks who might be interested. After participating, participants were asked to pass the study

information on to other potential participants, using the recruitment methods of word of mouth and snowball sampling.

### 1.5.2 Procedure

An electronic survey was administered through SurveyMonkey for all participants. The survey included 14 sets of sentences corresponding to (18a) through (18h) with different *-st* verbs of motion (Appendix 1)<sup>19</sup>.

- (18)a. Bjartur tróðst gegnum mannþröngina  
 Bjartur.NOM squeezed-ST through crowd.the.ACC  
 ‘Bjartur squeezed through the crowd.’  
 \*‘Bjartur squeezed (something) while moving through the crowd.’
- b. Bjartur tróðst  
 Bjartur.NOM squeezed-ST  
 ‘Bjartur squeezed (himself).’  
 \*‘Bjartur squeezed (something).’
- c. Þá var troðast gegnum mannþröngina  
 then was squeezed-ST through crowd.the.ACC  
 ‘Then there was squeezing (of oneself) through the crowd.’  
 \*‘Then there was squeezing (of something) through the crowd.’
- d. #Þá var troðist  
 then was squeezed-ST  
 ‘Then there was squeezing (of oneself).’  
 ‘Then there was squeezing (of something).’
- e. #Bjartur tróð gegnum mannþröngina  
 Bjartur.NOM squeezed through crowd.the.ACC  
 \*‘Bjartur squeezed through the crowd’  
 ‘Bjartur squeezed (something) while moving through the crowd.’
- f. #Bjartur tróð  
 Bjartur.NOM squeezed  
 \*‘Bjartur squeezed (himself).’  
 ‘Bjartur squeezed (something).’

---

<sup>19</sup> The symbols \* and # are used to indicate that participants considered the translations to be ungrammatical or odd; the symbols were not present in the survey.

- g. #Þá var troðið gegnum mannþröngina  
 then was squeezed through crowd.the.ACC  
 #‘Then there was squeezing (of oneself) through the crowd.’  
 ‘Then there was squeezing (of something) through the crowd.’
- h. Þá var troðið.  
 then was squeezed  
 \*‘Then there was squeezing (of oneself).’  
 ‘Then there was squeezing (of something)’

The example sentences were constructed using the Beygingarlýsing Íslensks Nútímamáls (BÍN), also called the Database of Icelandic Morphology (DIM) (Bjarnadóttir, n.d.), based on the examples provided by Wood (2014, 2015) and Wood and Marantz (2017). The set of verb roots investigated is based on the list provided by Wood (2014, p. 13).

There were 9 participants in total. Each participant was presented with a randomly selected subset corresponding to 6 of the 14 verbs of motion.<sup>20,21</sup> This was done to reduce the average length of time required for participation. The participants were asked two questions per sentence; the first was to provide an acceptability judgement on a five-point Likert scale (1 = unacceptable, 5 = acceptable) and the second was to select possible English translations for each sentence from a provided list. There was also an option for participants to add in alternative English translations if need be. The verbs were presented in a random order to reduce possible confounding effects of order, but the individual questions for each verb were presented in a consistent order. It was necessary to keep the questions for each sentence together, as the English translation selections referred to the sentences presented in the preceding acceptability judgement questions.

Each participant was asked 96 questions in total (2 questions x 8 sentences x 6 verbs). A sample of the survey questions is provided in Appendix 2. In total, no more

<sup>20</sup> See Chapter 2.1.2 for a discussion of verbs of motion.

<sup>21</sup> The number of participants for each verb root is listed in Appendix 5.

than one hour was required of each participant in order to complete the survey. The average completion time was 10.5 minutes, ranging from 6.5 to 46.0 minutes. At the end of the survey, participants were presented with the option to participate in a follow-up interview held over Zoom or email, depending on the participant's preference. The follow-up interview questions are provided in Appendix 3. In total, 4 participants indicated interest in participating in a follow-up interview over email. Many of the participants made use of the comment fields to make notes about their judgements, additional possible interpretations, and how they approached formatting and conjugation errors in the survey. As this met the main goals of the follow-up interviews, no follow-up interviews were conducted.

## Chapter 2. Literature Review

This section aims to summarize elements of the concepts and works that are crucial to the thesis. First, I will review a set of key concepts, including *expletives*, *verbs of motion*, and *prepositional phrases* in Section 2.1. This is followed by a brief description of the Icelandic language in Section 2.2, with emphasis on features that are relevant to the present analysis. These include subsections on Icelandic argument structure that describe the phenomena most relevant to this thesis, including *middles*, *passives* (including *impersonal passives*), *reflexives*, *unaccusatives* (including *anticausatives*), and *unergatives*.

### 2.1 A review of key concepts

This section introduces a set of core concepts that are common themes throughout the present thesis. These include *expletives* (2.1.1), *verbs of motion* (2.1.2), and *prepositional phrases* (2.1.3).

#### 2.1.1 Expletive Constructions

The term *expletive* traditionally refers to semantically null DPs that bear no thematic role (Svenonius, 2002), such as the subject in the Icelandic sentence in (19a). In this example, EXPL is the gloss for the expletive subject and -ST is the gloss for the *-st* “reflexive” marker attached to the main verb. The presence of the -ST is associated with an apparent change in the valency of the verb, as demonstrated in (19b) where the transitive verb *spill* as in *Jo spilled the milk* shares a verb root with the anticausative<sup>22</sup> *The milk spilled* (Wood, 2015). A transitive use of the verb is shown in (19c).

---

<sup>22</sup> Wood (2015) analyzes (19b) as anticausative, while Thráinsson (2007) refers to it as an intransitive middle.

- (19) a. Það    hellist       niður  
 EXPL spilled-ST   down  
 ‘There was a spill.’
- b. Mjólkin       hellist       niður  
 milk.the.NOM spilled-ST   down  
 ‘The milk spilled.’
- c. Þeir           helltu mjólkinni   niður  
 they.NOM       spilled milk.the.DAT down  
 ‘They spilled the milk.’

(Wood, 2015: 202)

Traditionally, such DPs are thought to be inserted to satisfy the Extended Projection Principle (EPP). The EPP requires that all clauses have DP or CP subjects (Chomsky, 1982, as cited in Svenonius, 2002). Described briefly in Chapter 1.3.1 and more thoroughly in Section 2.3, Wood (2015) proposes that *-st* is an expletive argument DP which is semantically null and cannot bear a thematic role, but occupies a theta position.

Wood and Marantz (2017) propose that, in addition to DPs, syntactic heads themselves can have expletive interpretations. It is well established that syntactic heads do not always need to be pronounced. For example, the PAST tense feature is not pronounced in *Jo hit the ball*. In addition, Wood (2015) and Wood and Marantz (2017) assume that syntactic heads do not need to be semantically interpreted; they propose that there are alloemes of argument-introducing heads that can remain without a specifier (represented as  $\text{Voice}_{\emptyset}$ ,  $\text{Appl}_{\emptyset}$ , and  $p_{\emptyset}$ ) and which may be thematically expletive in syntactic contexts, as will be discussed in Section 2.3.

### 2.1.2 Verbs of Motion

The verbs under examination in the present thesis are all *-st* verbs of motion. Motion falls under the conceptual umbrella of spatial language, as it has to do with the “dynamic displacement of objects in space” (Grigoroglou & Papafragou, 2019, p. 1). Verb roots,

including verbs of motion, contribute lexical and conceptual meaning. Some typically unergative inherently-directed motion verbs allow a special interpretation that there is an agentive internal argument<sup>23</sup>, as in the English example in (20) (Biggs, 2019).

(20) Coach swam the team to the deep end of the pool. (Biggs, 2019: 2)

The example in (20) shows that certain syntactic contexts allow for special interpretations of the verb root. This is connected to the present study, as Wood (2014, 2015) notes that unmarked figure reflexives may force special motion interpretations of non-motion roots and non-literal motion readings of typical inherent motion roots.

### 2.1.2.1 Prepositional Phrases

As noted in Wechsler (2015), verbs of motion can encode motion, manner, path of motion, or a combination of these variables. In English and Icelandic, verbs of motion can encode the path of motion with the addition of a prepositional phrase. When this occurs, a FIGURE and a GROUND (Section 2.1.2.2) are introduced. Prepositional phrases can be used to encode directed motion in languages like English, German, and Russian (Grigoroglou & Papafragou, 2019). In Icelandic, as noted in the previous chapter, it is common for *-st* verbs to require a preposition that is not obligatory for non-*-st* uses of the same verb (Sigurðsson, 1989; Wood, 2015). This is seen in (21b) as compared to (21a), and (22b) as compared to (22a). The complement of the preposition can be a finite or infinitival clause, as seen in (21). It can also take a DP complement, as in (22). The relationship between the meaning of the reflexive<sup>24</sup> *-st* verbs and their non-reflexive, non-*-st* counterparts is idiosyncratic, as seen in (22a) compared to (22b) (Wood, 2015).

---

<sup>23</sup> There is also a non-agentive reading for the internal argument, where the coach is the one swimming.

<sup>24</sup> The expletive argument analysis of Icelandic *-st* does not consider *-st* to be a literal reflexive morpheme (Wood, 2015); rather it causes a reflexive interpretation based on the position that it merges into (Wood & Marantz, 2017; Wood 2020, personal communication).

(21)a. Ég vona (\*til) að ég nái profinu  
 I hope (\*for) that I pass exam.the  
 ‘I hope that I will pass the exam.’

b. Ég vonast \*(til) að ég nái prófinu  
 I hope-ST \*(for) that I pass exam.the  
 ‘I hope that I will pass the exam.’

(22)a. Börnin sækja sælgæti  
 children.the.NOM get candy  
 ‘The children get candy.’

b. Börnin sækjast \*(i) sælgæti  
 children.the.NOM get-ST \*(to) candy  
 ‘The children try to get candy.’

(Wood, 2015: 63)

### 2.1.2.2 Figure and Ground

The concept of a FIGURE is central to the present thesis. Referring to sentences that contain *-st* morphology and a prepositional phrase like (23) as *figure reflexives* makes use of the FIGURE/GROUND terminology of Talmy (1975).

(23) Bjartur trúðst gegnum mannþröngina  
 Bjartur.NOM squeezed-ST through crowd.the  
 ‘Bjartur squeezed through the crowd.’

(Wood & Marantz, 2017: 12)

The term FIGURE refers to an object that stands in relation to a location, while GROUND is the object that the FIGURE is being located in reference to (Grigoroglou & Papafragou, 2019; Talmy, 1975). For pragmatic reasons, when the two objects in a FIGURE/GROUND relationship are of significantly different sizes, the smaller object is often the FIGURE and the larger object is often the GROUND (Grigoroglou & Papafragou, 2019). In (24), *Bjartur* would be the AGENT, *pencils* would be the FIGURE and *the bag* would be the GROUND.

(24) Bjartur trúð blýöntunum í pokann  
 Bjartur.NOM squeezed pencils.the.DAT in bag.the  
 ‘Bjartur squeezed the pencils into the bag.’

## 2.2 Icelandic Argument Structure

Part of the North Germanic language family, Icelandic is most closely related to Faroese, followed by the other Nordic languages of Norwegian, Danish, and Swedish (Thraínsson, 2007).<sup>25</sup> There are approximately 330,000 native speakers of Icelandic (Britannica, 2016), the majority of whom live in Iceland. A map of Iceland is presented in Figure 1.



Figure 1. Map of Iceland [Online image]. Lonely Planet (2020). Retrieved from Lonely Planet, <https://www.lonelyplanet.com/maps/europe/iceland/>, June 20, 2021.

This section features a description of argument structure types in Icelandic that are relevant to the present thesis. These include middles, passives, unergatives, and unaccusatives.

<sup>25</sup> The facts presented in Section 2.2 are based on Thraínsson (2007), unless otherwise noted.

### 2.2.1 Inflectional properties

There are four morphological cases in Icelandic: nominative, accusative, dative, and genitive (Wood, 2015, p. 35). The number system has two values: singular and plural. The gender system has three values: feminine, masculine, and neuter. These features are marked on nominal categories including nouns, adjectives, determiners<sup>26</sup>, and pronouns. Adjectives display agreement with the nouns that they modify. There is no indefinite determiner in Icelandic, but the definite determiner is inflected for gender, number, and case, and is usually attached as a nominal suffix.

### 2.2.2 Icelandic Verbal Morphology

Icelandic finite verbs use a fused suffix to agree in person and number with a nominative subject. Past tense is marked on the verb, using a dental suffix for phonologically ‘weak’ verbs. For phonologically ‘strong’ verbs, past tense is marked through stem vowel changes. While internally systematic, the choice of stem vowel change pattern is unpredictable. For both weak and strong verbs, the non-past is unmarked.

Non-finite verb forms in Icelandic include the infinitive (usually marked with the suffix *-a*), the present participle<sup>27</sup> (usually marked with *-(a)ndi*), and the past participle<sup>28</sup> (usually marked with *-ur* or *-inn*). In passives with nominative subjects, the past participle is used and it agrees with the subject in gender, number, and case.

The supine is a non-agreeing participle form of the verb, that occurs with non-nominative passive subjects (Thráinsson, 2007, p. 134). This is demonstrated in (25),

---

<sup>26</sup> The term *articles* is used in Thráinsson (2007) .

<sup>27</sup> Corresponding to the progressive participle in English.

<sup>28</sup> Corresponding to the perfect/passive participle in English.

where the active transitive (a) has a passive counterpart (b) that shows the supine form of the verb root  $\sqrt{\text{STOLIÐ}}$ , *steal*.

- (25)a. Þeir                      stálu                      bókinni  
           they.NOM.SG.M stole.PL                      book-the.DAT.SG.F  
           ‘They stole the book.’
- b. Bókinni                      var                      stolið  
           book-the.DAT.SG.F                      was                      stolen.SG.N  
           ‘The book was stolen.’
- (Thráinsson, 2007: 134)

The supine form of the verb is identical to the past participle form of the verb that appears to agree with nominative/accusative neuter singular (NOM/ACC.SG.N) subjects.

### 2.2.3 Passives

The argument that would be assigned accusative case as the direct object of the verb in an active is assigned nominative case in canonical nominative<sup>29</sup> Icelandic passives (Maling & Sigurjónsdóttir, 2002). The finite verb and the passive participle must agree with the nominative argument, regardless of whether it moves to Spec-TP. The demoted AGENT argument can be optionally expressed in a prepositional phrase (Lyngfelt & Solstad, 2006), as shown in (26).

- (26) Laxarnir                      voru                      veiddir                      í Laxá                      (af útlendingum)  
           salmons.the.NOM.PL.M were.PL caught.PL in Salmon River (by foreigners)  
           ‘Salmon were caught in Salmon River (by foreigners).’

There are some active sentences that do not have corresponding passives. For instance, *-st-*verbs with accusative objects cannot occur in passives in cases where the passive requires agreement on the participle, as shown in (27)<sup>30</sup> where (a) is the active transitive and (b) is the corresponding ungrammatical passive.

<sup>29</sup> Note that Icelandic also has non-nominative passives, such as dative-nominative passives.

<sup>30</sup> The verb *annast* ‘take care of’ seems to allow two patterns, the one seen in (27) and one in (30), where it can take a PP complement that then takes an accusative complement.

(27) a. Þau                    önnuðust                    barnið  
 they.NOM      took-care-of-ST      child-the.ACC  
 ‘They took care of the child.’

b. \*Barnið            var      annast  
 child-the.NOM was.SG taken-care-of-ST  
 INTENDED: ‘The child was taken care of.’

(Thráinsson, 2007: 255)

This is even true in (28) when the third person nominative form is used (28b), which is identical to the form used in the grammatical impersonal passive (28c) (Wood, 2015).

(28) a. Ég      forðaðist      barnið  
 I.NOM avoided-ST      child.the.N.ACC  
 ‘I avoided the child.’

b. \*Barnið            var      forðast  
 child.the.N.NOM was      avoided.N.NOM.SG-ST  
 Intended: ‘The child was avoided.’

c. Það      var                    forðast                    að      nefna      Jón  
 EXPL      was.DFLT      avoided.DFLT-ST to      mention John  
 ‘(People) avoided mentioning John.’<sup>31</sup>

(Wood, 2015: 71)<sup>32</sup>

Impersonal passives of *-st* verbs such as (28c) are possible in Icelandic, as they do not require or allow participle agreement. Sigurðsson (2011) notes that impersonal passives occur frequently and are productively related to their active counterparts. Impersonal passives must be based on an agentive predicate (Thráinsson, 2007, p. 267). This is demonstrated in (29), where (a) is an active transitive, (b) is unaccusative, and (c) is the ungrammatical impersonal passive of an unaccusative. The set of examples in (29)

<sup>31</sup> As noted by Leslie Saxon, it appears that impersonal passives are not possible with accusative objects. This is the case, as long as it is not a New Impersonal Passive, as in (35d).

<sup>32</sup> (28c) is originally from Ottósson (1992), as cited in Wood (2015).

also implies that impersonal passives cannot be based on agentive transitives like (29a) (Martha McGinnis, 2021; personal communication).

- (29) a. Þeir            stækkuðu      garðinn  
 they.NOM      enlarged      garden.the.ACC  
 ‘They grew the garden’
- b. Garðurinn            stækkaði  
 garden.the.NOM      grew.bigger  
 ‘The garden grew’
- c. \*Það var stækkað  
 EXPL was grown.bigger  
 ‘There was growing’
- (Thráinsson, 2007: 267)

Impersonal passives are possible for most unergative main verbs. Non-exhaustively, these include verbs that take PP complements as in (30), verbs that occur in both transitive and unergative contexts as in (31), aspectual verbs as in (32)<sup>33</sup>, and control verbs as in (33) (Sigurðsson, 2011).

- (30) a. Þau            önnuðust      um      barnið  
 they.NOM      took-care-ST      of      child-the.ACC  
 ‘They took care of the child.’
- b. Það var annast um barnið  
 EXPL was taken-care-ST of child-the.ACC  
 ‘The child was taken care of.’<sup>34</sup>
- (based on Thráinsson, 2007: 255)

(31) Then was hunted/cooked/eaten every day<sup>35</sup>.            (Sigurðsson, 2011: 150)

- (32) a. Hér er verið að vinna  
 here is been to work  
 ‘People are working here’/‘There is ongoing work here.’

<sup>33</sup> Impersonal passives of intransitive aspectual predicates as in (33) are restricted to volitional interpretations (Thráinsson, 2007, pp. 268-269).

<sup>34</sup> The gloss in (30b) could potentially be rephrased as ‘(People) took care of the child’ to be glossed in the same way as examples of impersonal passives from Wood (2015), such as the one in (28c).

<sup>35</sup> An Icelandic translation was not present for (31), though the judgements presumably apply to the Icelandic equivalent.

b. Það var farið að vinna  
it was gone to work  
'People began to work.'  
(Sigurðsson, 2011: 150)

(33) a. Þá var reynt að vinna  
then was tried to work  
'Then, somebody tried to work.'  
(Sigurðsson, 2011: 150)

Wood (2015, p. 70) notes that Icelandic *-st* verbs can occur in impersonal passives, as well as personal passives with dative and genitive derived subjects. Wood and Marantz (2017) show that the impersonal passive in (34a) is possible, demonstrating the presence of an agentive external argument in the active counterpart in (34b).

(34) a. Það var troðist gegnum mannþröngina  
EXPL was squeezed-ST through crowd.the  
'There was squeezing through the crowd.'

b. Bjartur tróðst gegnum mannþröngina  
Bjartur.NOM squeezed-ST through crowd.the  
'Bjartur squeezed through the crowd.'

(Wood & Marantz, 2017: 12-13)

Maling and Sigurjónsdóttir (2002) and Sigurðsson (2009) describe another type of passive in Icelandic called the New Impersonal Passive. Icelandic New Impersonal Passives involve the underlying object bearing accusative case instead of nominative case. Moreover, the object cannot move to the subject position in Spec-TP (Wood 2015, p. 43). In (35), (a) is a canonical personal passive involving an *-st* verb and a genitive derived subject, which contrasts with the ungrammatical canonical personal passive involving an *-st* verb and a nominative derived subject in (b). The example in (c) is a canonical impersonal passive, while (d) is a New Impersonal Passive.

(35) a. Peninganna var krafist (af þeim)  
money.the.GEN was demanded.hit.DFLT-ST (by them)  
'The money was demanded (by them).'

- b. \*Barnið var forðast  
 child.the.N.NOM was avoided.N.NOM.SG-ST  
 Intended: ‘The child was avoided.’
- c. Það var forðast að nefna Jón  
 EXPL was.DFLT avoided.DFLT-ST to mention John  
 ‘(People) avoided mentioning John.’
- d. %Það var forðast óholla matinn  
 EXPL was avoided.DFLT-ST unhealthy food.the.ACC  
 ‘The unhealthy food was avoided’/‘(People) avoided the unhealthy food.’

There is a question of whether sentences like (35d) should be analyzed as active with silent impersonal subjects, or passive without NP movement of an internal argument (Maling, 2006)<sup>36</sup>. It is referred to as the New Impersonal Passive as speakers are becoming more favourable to such impersonal passives of Icelandic over time (Maling & Sigurjónsdóttir, 2002; Maling, 2006). Wood (2015, p. 45) notes that the use of impersonal passives as a diagnostic for unergativity must be done carefully, as they do not necessarily have a steadfast analysis due to significant variation in acceptability judgements between speakers.

#### 2.2.4 Middles

There is variability in the literature in terms of the structures that are classified as middles; for instance, (36a) is analyzed as an intransitive middle by Thráinsson (2007, p. 289) and as an anticausative by Wood (2015, p. 202)<sup>37</sup>. As (36a) does not seem to have an implied external argument<sup>38</sup> despite being able to occur in an active transitive as in (36b), it is analyzed as an anticausative in the present thesis as well.

<sup>36</sup> In the work of Maling and Sigurjónsdóttir (2002: 98), these facts are presented using the verb *lamið* ‘hit/beat’, so these examples were collected from Wood (2015) as they appear to be a roughly parallel alternative.

<sup>37</sup> Though this is not necessarily a contradiction, as Thráinsson (2007) uses a broad definition of *middle*.

<sup>38</sup> Based on the English gloss, as noted by Leslie Saxon (2021, personal communication).

- (36) a. Mjólkin            helltist            niður  
 milk.the.NOM spilled-ST            down  
 ‘The milk spilled.’ (also 20b)
- b. Þeir            helltu mjólkinni            niður  
 they.NOM            spilled milk.the.DAT            down  
 ‘They spilled the milk.’
- (Wood, 2015: 202)

What Thráinsson (2007, p. 289) analyses as ‘true middles’ will be referred to as middles in this thesis. These middles are defined by the fact that they alternate with active transitives, differing due to the absence of a syntactic external argument, though an external argument is still implied semantically, as in (37).

- (37) Rafmagnsbílar            seljast (vel) hér  
 electric.cars.NOM            sell-ST (well) here  
 ‘Electric cars sell well here.’ (Wood, 2015: 62)

While passives allow the agent to be expressed in a prepositional phrase, middles do not. This is demonstrated in (38), where (a) is an active transitive, (b) is a passive with an acceptable optional agentive PP, and (c) is a middle that does not allow an agentive PP.

- (38) a. Útlendingar            veiddu laxana            í            Laxá  
 foreigners            caught salmons.the.ACC.PL.M in            Salmon River  
 ‘Foreigners caught salmon in Salmon River.’
- b. Laxarnir            voru veiddir í            Laxá            (af útlendingum)  
 salmons.the.NOM.PL.M were.PL caught in            Salmon River (by foreigners)  
 ‘Salmon were caught in Salmon River (by foreigners).’
- c. Laxarnir            veiddust            í Laxá            (\*af útlendingum)  
 salmons.the.NOM.PL.M got.caught.PL-ST in Salmon River (\*by foreigners)  
 ‘Salmon got caught in Salmon River (\*by foreigners).’

(Thráinsson, 2007: 289)

Middles cannot occur in impersonal passives, as they do not have a syntactically expressed external argument (Thráinsson, 2007, p. 267). This is shown in (39), where (a) is classified as a middle<sup>39</sup> and (b) is the ungrammatical impersonal passive.

- (39) a. Dyrnar            opnuðust  
           door.the.NOM opened-ST  
           ‘The door opened’
- b. \*Það     var     opnast  
           EXPL    was    opened-ST  
           ‘There was opening’
- (Thráinsson, 2007: 267)

Disallowing agentive PPs and impersonal passives are traits that middles have in common with unaccusatives (2.2.5), along with having a derived subject and a finite main verb. This suggests that middles and unaccusatives are at least syntactically similar.

However, while middles allow a semantically implied agent, unaccusatives do not. As noted by Wood (2015), Schäfer (2008) argues that middles are a special interpretation of anticausatives, in that they are syntactically identical and differ only in terms of semantically implied agent. Assuming that middles are a special interpretation of anticausatives, then they would also be considered syntactically unaccusative.

### 2.2.5 Unaccusatives

Perlmutter (1978)<sup>40</sup> describes two classes of intransitive verbs: unaccusative and unergative. As noted by Thráinsson (2007), both classes of intransitives include *-st* verbs in Icelandic.

Unaccusative clauses typically have a single argument, a non-agentive subject that is derived from an object (or internal argument) position. In Icelandic, these include

<sup>39</sup> As noted by Martha McGinnis (2021, personal communication), the English translation of (39a) is unaccusative. In order to be classified as a true middle, the Icelandic example in (39a) would have to imply non-spontaneous opening.

<sup>40</sup> As discussed in Thráinsson (2007, p. 293).

intransitive predicates with theme or patient subjects (i.e. *brenna* ‘burn’<sup>41</sup>, *hrasa* ‘stumble’, *hristast* ‘shake’), intransitive change-of-state inchoatives (i.e. *bráðna* ‘melt’, *farast* ‘perish’, *loka* ‘close’, *lokast* ‘close’), intransitive predicates of existing and happening (i.e. *birtast* ‘turn up’, *gerast* ‘happen’), non-voluntary stimulus emission (i.e. *glampa* ‘glitter, shine’, *glamra* ‘clink, rattle’), intransitive aspectual predicates (i.e. *byrja* ‘begin’, *enda* ‘end’, *heffast* ‘begin’)<sup>42</sup>, and intransitive duratives (i.e. *dveljast* ‘stay’, *endast* ‘last’, *lifa af* ‘survive’) (Thráinsson, 2007, p. 293). It should be noted that some unaccusatives involve raising verbs and may have an agentive subject that is raised from a lower clause (Sportiche, 1990; Thráinsson, 2007, p. 440). Unaccusatives do not involve agent demotion, as they disallow a *by*-phrase (Lyngfelt & Solstad, 2006). As unaccusatives do not imply an agent, they cannot occur in impersonal passives, since impersonal passives must be based on an agentive predicate (Thráinsson, 2007, p. 267). This is demonstrated in (40), where (a) is an active transitive, (b) is an unaccusative, and (c) is the ungrammatical impersonal passive of an unaccusative, by the analysis in Thráinsson (2007).

- (40) a. Þeir                    stækkuðu            garðinn  
           they.NOM            enlarged            garden.the.ACC  
           ‘They grew the garden’
- b. Garðurinn                    stækkaði  
           garden.the.NOM            grew.bigger  
           ‘The garden grew’
- c. \*Það    var            stækkað  
           EXPL was            grown.bigger  
           ‘There was growing’
- (Thráinsson, 2007: 267)

<sup>41</sup> As noted by Leslie Saxon, *brenna* ‘burn’ would be considered anticausative if it alternates with a corresponding transitive form (as it does in English).

<sup>42</sup> Intransitive aspectual predicates can still be analysed as unaccusative for non-volitional interpretations, given that their impersonal passives are restricted to volitional interpretations (Thráinsson, 2007, pp. 268-269).

As (40b) alternates with the active transitive in (40a), the present thesis analyses (40b) as an anticausative. Anticausatives can be thought of as intransitive constructions that have had the ‘cause’ removed, under an assumption that the intransitive form is derived from a transitive counterpart (Wechsler, 2015, p. 84-87). As a derivational relationship between anticausatives and transitives is not assumed in the present paper, anticausatives are analysed as unaccusatives in which the same verb root can occur in a causative transitive counterpart. In contrast with middles and like other unaccusatives, anticausatives do not have a semantically implied agent. Icelandic anticausatives can be *-st-* marked, *-na-* marked, or unmarked (Wood, 2015). An example of an *-st-* marked anticausative is provided in (41), a *-na-* marked anticausative is shown in (42b), and an unmarked anticausative is shown in (43b). As the causative (43a) and the anticausative in (43b) both bear the *-ka* suffix, the causative is unmarked (Wood, 2015, p. 116).

- (41) Glugginn                      opnaðist              af              sjálfu sér  
 window.the.NOM              opened-ST              by              itself  
 ‘The window opened by itself.’

(Sigurðsson, 1989 in Wood, 2015: 62)

- (42) a. Jón              hita-ði                      vatnið  
 Jon.NOM              heated.3SG.PST              water.the.ACC  
 ‘Jon heated the water.’

- b. Vatnið              hit-na-ði  
 water.the.NOM              heated-NA-3SG.PST  
 ‘The water heated.’

(Wood, 2015: 125)

- (43) a. Fólk                      dýp-ka-ði              skurðinn  
 people.NOM              deep-KA-ed              ditch.the.ACC  
 ‘People deepened the ditch.’

- b. Skurðurinn              dýp-ka-ði  
 ditch.the.NOM              deep-KA-ed  
 ‘The ditch deepened.’

(Thráinsson, 2007 in Wood, 2015: 116)

The derivation of anticausatives under the expletive argument analysis proposed by Wood (2015) is described in detail in Chapter 2.4.

### 2.2.6 Unergatives

Unergative clauses are intransitive clauses that lack a direct object but have an external argument, in contrast with unaccusatives. They typically have an agentive subject as their sole argument, though they can also have applied arguments or PP arguments (Martha McGinnis, 2021, personal communication). In Icelandic, these include predicates that describe willed or volitional acts (i.e. *berjast* ‘fight’, *brosa* ‘smile’, *dansa* ‘dance’), manner-of-speaking verbs (i.e. *hvisla* ‘whisper’, *öskra* ‘yell’, *klæmast* ‘use obscene language’), predicates that describe animal sounds (i.e. *baula* ‘moo’, *gelta* ‘bark’, *mjálma* ‘meow’), and some bodily processes (i.e. *hnerra* ‘sneeze’, *hósta* ‘cough’) (Thráinsson, 2007). Unlike unaccusatives, unergatives allow impersonal passives in Icelandic (Zaenen & Maling, 1990; Thráinsson, 2007). This is demonstrated in (44), where (a) is unergative and (b) is its impersonal passive. For comparison, (45a) is unaccusative and (b) is its ungrammatical impersonal passive.

(44) a. Fólk                      dansaði              alla      nóttina  
           people.NOM.SG        danced            all        night.ACC  
           ‘People danced all night’

b. Það    var    dansað                      alla      nóttina  
       there was danced.NOM.SG.N        all        night.ACC  
       ‘There was dancing all night’

(Thráinsson, 2007: 266)

(45) a. Garðurinn                      stækkaði  
           garden.the.NOM            grew.bigger  
           ‘The garden grew’

b. \*Það    var    stækkað  
       EXPL was    grown.bigger  
       ‘There was growing’

(Thráinsson, 2007: 267; see also (32) and (41))



- (49) Egill<sub>i</sub> rakaði { hann<sub>\*i/j</sub> / sig<sub>i/\*j</sub> / SJÁLFAN sig<sub>i/\*j</sub> }  
 Egill<sub>i</sub> shaved { him<sub>\*i/j</sub> / REFL<sub>i/\*j</sub> / SELF REFL<sub>i/\*j</sub> }  
 ‘Egill shaved him/himself/himSELF’

(Wood, 2015: 41)

Disjoint reflexive verbs strongly prefer to take a morphologically complex anaphor over the simple anaphor, which can be freely replaced with a DP (Schäfer, 2012). This is shown in (50) from Dutch. In order to express reflexivity, a complex reflexive is required in Icelandic (51).

- (50) Zij haat { ??zich / zichzelf / Peter }  
 she hates { REFL / REFL-SELF / Peter }  
 ‘She hates herself/Peter.’

(Schäfer, 2012: 218)

- (51) Egill<sub>i</sub> elskaði { hann<sub>\*i/j</sub> / \*sig / SJÁLFAN sig<sub>i/\*j</sub> }  
 Egill<sub>i</sub> loved { him<sub>\*i/j</sub> / \*REFL / SELF REFL<sub>i/\*j</sub> }  
 ‘Egill loved himself’

(Wood, 2015: 41)

As shown in (47) and (49), SE-anaphors like *sig* can occur in both inherently reflexive and naturally reflexive contexts in Icelandic (Schäfer, 2012). The examples in (52) demonstrate that *-st* cannot occur on verbs that are inherently reflexive (52a), naturally reflexive (52b), or disjoint (52c). There are some exceptional cases, such as *klæða sig* ‘get dressed’ in (52d) that alternates with *klæðast* ‘get dressed’ in (e) (Wood, 2015).

- (52) a. \*Egill hegðast  
 Egill behaves-ST  
 \*‘Egill behaves.’  
 b. \*Egill rakaðist  
 Egill shaved-ST  
 \*‘Egill shaved.’  
 c. \*Egill elskaðist  
 Egill loved-ST  
 \*‘Egill loved.’

(Wood, 2015: 66)

d. Egill<sub>i</sub> klæddi sig  
 Egill dressed SELF  
 ‘Egill dressed himself.’

e. Egill<sub>i</sub> klæddist  
 Egill dressed-ST  
 ‘Egill dressed.’

(Wood, 2015: 67)

In addition to the exceptions in (52d-e), the examples in (53) demonstrate that there are cases where the same verb of motion can occur with an overt reflexive pronoun (a) or with the verbal morpheme *-st* (b).

(53) a. Hann tróð sér gegnum mannþröngina  
 he.NOM squeezed REFL.DAT through crowd.the.ACC  
 ‘He squeezed through the crowd.’

b. Hann tróðst gegnum mannþröngina  
 he.NOM squeezed-ST through crowd.the.ACC  
 ‘He squeezed through the crowd.’

(Wood, 2015: 181)

As introduced in Chapter 1.3.1, the expletive argument analysis of Icelandic *-st* does not consider *-st* to be a literal reflexive morpheme (Wood, 2015); rather it causes a reflexive interpretation based on the position that it merges into (Wood & Marantz, 2017; Wood 2020, personal communication). The following Section 2.3 summarizes the details of the expletive argument analysis of *-st*.

### 2.3 Description of the expletive argument analysis of *-st*

In this section, I expand on the brief description of the expletive argument analysis of Icelandic *-st* figure reflexives (Wood, 2015) presented in Chapter 1. Here, I summarize the aspects of Wood (2015) and Wood and Marantz (2017) that are central to the present analysis.

Wood and Marantz (2017) propose that there is a single argument introducing head called *i\**. As Voice and *p* are contextually distinguished variants of *i\**, its syntactic

and semantic properties are integral to the expletive argument analysis of figure reflexives. These properties of  $i^*$  are determined by three factors that are relevant to the present thesis (Wood & Marantz, 2017). First,  $i^*$  has its categorial feature valued by the categorial feature of the constituent it attaches to at first Merge (2.3.1). Second,  $i^*$  can merge with many different syntactic categories, including heads and lexical roots (2.3.2). It can then be interpreted based on its structural position. Third, it is possible for lexical roots to adjoin to  $i^*$  (2.3.3). In this case, the lexical root influences the interpretation of  $i^*$ .

### 2.3.1 Interpretation of $i^*$ : Categorial Feature Values

As discussed in Chapter 1,  $i^*$  is shorthand for a feature bundle that includes an unspecified categorial feature (CAT) and a selectional feature (S) that selects for the category D, as in (54a). In order for the selectional feature to be checked, the categorial feature needs to be valued. The categorial feature is valued in accordance with the first constituent it merges with. When  $i^*$  merges with a pP, its categorial feature is valued as p, resulting in  $p$ , as in (54b). When  $i^*$  merges with a vP, its categorial feature is valued as v, resulting in Voice<sup>43</sup>, as in (55c).

- (54) a.  $i^* = \{[CAT: \_], [S:D]\}$   
 b.  $p = \{[CAT:p], [S:D]\}$   
 c.  $\text{Voice} = \{[CAT:v], [S:D]\}$

(Wood & Marantz, 2017: 4-6)

In general, the function of  $i^*$  is to introduce the external arguments of VoicePs and pPs.

---

<sup>43</sup> Also referred to as  $v$ , as in Wood and Marantz (2017)

### 2.3.2 Interpretation of *i*\*: Influence of Structure at Syntactic-Semantic Interface

There are two allosemes of *i*\*; one that introduces a thematic role such as the FIGURE or AGENT, and one that is expletive (Wood & Marantz, 2017). Wood and Marantz (2017) note that certain structures are only compatible with one of the two possible allosemes. When a semantically contentful DP occupies the external argument position, the expletive alloseme is not possible. As noted in 1.3.1, Wood (2015) proposes that *-st* is an expletive DP that can merge in the specifier position of *i*\*. When this occurs, the alloseme of *i*\* that assigns the thematic role is not possible. Thus, the expletive interpretation of the head is forced by *-st* merging in its specifier position, unless there is a way for the thematic role to be saturated higher in the structure. This explains why examples such as (55) are ungrammatical.

- (55) \*Maðurinn myrtist  
       the.man.NOM murdered-ST  
       \*‘There was an event of murdering the man.’

(Wood & Marantz, 2017: 16)

Following the work of Heim and Kratzer (1998), Harley’s (2011) Full Interpretation requires each predicate function to combine with the correct number of arguments in order to be interpreted; leftover arguments and unsaturated predicates result in an interpretation failure. When *i*\* attaches to *v*P to become Voice, it closes off the *v*P domain and becomes the highest argument-introducing head. When *-st* merges in Spec-VoiceP, there are no more arguments available to saturate the agent role. As the AGENT role is not assigned, Full Interpretation is violated, causing the derivation to crash (Wood & Marantz, 2017).

### 2.3.3 Interpretation of $i^*$ : Influence of Lexical Roots

Of the two alloemes of  $i^*$ , certain lexical roots are compatible with a specific alloeme, depending on the type of event that they denote (Wood & Marantz, 2017). For example, verb roots such as  $\sqrt{\text{MURDER}}$  are obligatorily agentive<sup>44</sup>, so only the alloeme of  $i^*$  (Voice)<sup>45</sup> that introduces an AGENT is possible. In contrast, roots such as  $\sqrt{\text{BLOSSOM}}$  are obligatorily non-agentive, so only the expletive alloeme is possible. In the case of roots such as  $\sqrt{\text{OPEN}}$ , both alloemes are available for interpretation, so expressions such as *He opened the door* and *The door opened* are both possible.

### 2.3.4 Expletive Voice and anticausatives

As there are two alloemes of  $i^*$ , there are two alloemes of the Voice head. The Voice head can project a specifier (Voice<sub>{D}</sub>) or not project a specifier (Voice<sub>{}</sub>), depending on whether it is bundled with a D feature in the lexicon (Wood & Marantz, 2017). By the analysis of Wood and Marantz, if it does not project a specifier and plays no syntactic selectional role, it is considered to be structurally expletive. Whether it is semantically empty depends on whether it has a DP specifier that is able to receive a thematic role. If it does project a specifier, Voice can introduce an external argument DP, or it can allow Icelandic *-st* to merge as an expletive argument in the specifier position instead. In this case, *-st* prevents a referential DP from merging into the specifier position of Voice. As it is assumed that *-st* cannot bear a thematic role, an AGENT role introduced by Voice cannot be saturated. As a result, the semantically expletive alloeme of Voice is forced. This results in an anticausative clause, such as (56).

---

<sup>44</sup> The relationships between specific verb roots, features of roots, and the selection of head-alloemes is a matter that is open for further research.

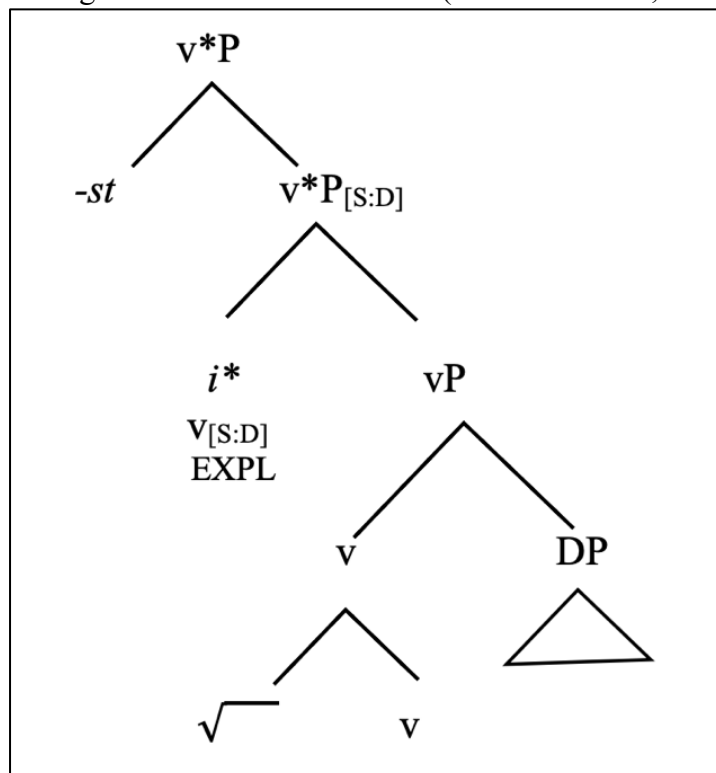
<sup>45</sup> As verb roots are discussed as an example in this section, the  $i^*$  that attaches to  $vP$  to become Voice is referred to here.

- (56) Mjólkin      helltist      niður  
 milk.the.NOM spilled-ST      down  
 ‘The milk spilled.’

(Wood, 2015: 202)

The structure for sentences such as (56) is illustrated in (57).

(57) Tree diagram of an *-st* anticausative (based on Wood, 2015; Wood & Marantz, 2017)



The expletive argument analysis is used to account for the relationship between a set of transitive non-*-st* verbs and their unaccusative counterparts described in Thráinsson (2007) (Wood, 2015). As shown in Table 5, roots that use *-na* and roots that use a zero morpheme to mark unaccusatives are in complementary distribution, while the distribution of roots that can use *-st* to mark unaccusatives intersects with these categories<sup>46</sup>. In many instances that have this overlap, one of the forms has acquired an alternative or idiomatic meaning (Thráinsson, 2007, Wood, 2015). In most cases, the *-na*

<sup>46</sup> Thanks to Martha McGinnis for noting this and for suggesting a comparison with Kim (2006a, 2006b).

verb has the idiomatic reading, as in *gleðja/gleðjast* ‘make/become glad’ and *glaðna*, which takes on a meaning of ‘clearing, getting brighter’ (Sigurðsson, 1989; Wood, 2015). However, there are some instances where the *-st* verb has the idiomatic reading. For example, *bogna* takes the unaccusative ‘bend’ meaning while *beygjast* takes on the meaning ‘inflect’ (Thráinsson, 2007; Wood, 2015).

**Table 5. Transitive verbs with intransitive counterparts** (Thráinsson, 2007, p. 288)

Transitive non- <i>st</i> verbs	Intransitive <i>-st</i>	Intransitive homophonous	Intransitive <i>-na</i>	Intransitive strong verb (suppletion) <sup>47</sup>
<i>auka</i> ‘increase’	<i>aukast</i> ‘increase’			
<i>dreifa</i> ‘spread’	<i>dreifast</i> ‘spread’			
<i>loka</i> ‘close’	<i>lokast</i> ‘close’	<i>loka</i> ‘close’		
<i>opna</i> ‘open’	<i>opnast</i> ‘open’	<i>opna</i> ‘open’		
<i>hæka</i> ‘raise’		<i>hæka</i> ‘raise’		
<i>byrja</i> ‘begin’		<i>byrja</i> ‘begin’		
<i>beygja</i> ‘bend’	<i>beygjast</i> ‘bend, inflect’		<i>bogna</i> ‘bend’	
<i>brjóta</i> ‘break’	<sup>48</sup>		<i>brotna</i> ‘break’	
<i>velta</i> ‘roll’	<i>veltast</i> ‘roll’			<i>velta</i> ‘roll’
<i>skella</i> ‘clash’	<i>skellast</i> ‘clash’			<i>skella</i> ‘clash’
<i>sökkva</i> ‘sink’				<i>sökkva</i> ‘sink’

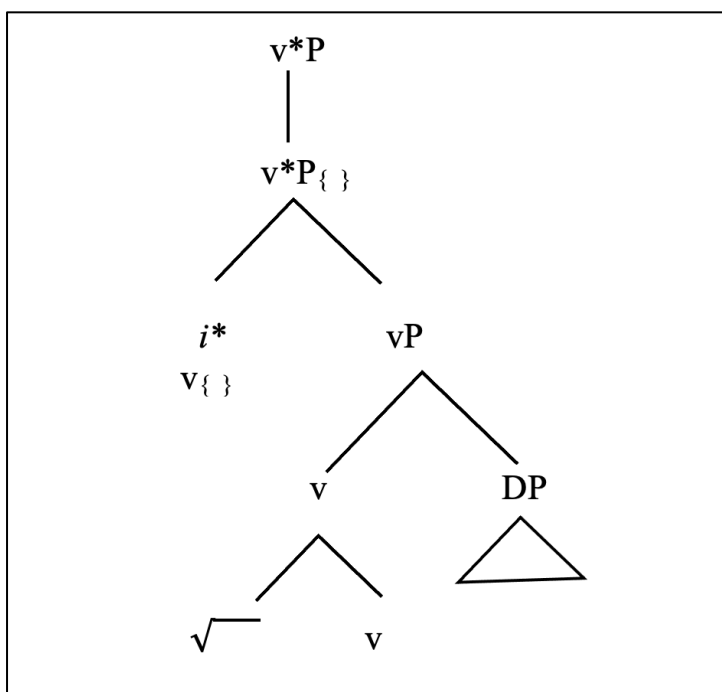
Wood (2015) provides a possible formal explanation for this, which has semantic implications. Under the expletive argument analysis, causative transitives occur when the specifier position of Voice{D} is filled with a semantically contentful DP, and the AGENT role is assigned to this external argument. There are two different routes for deriving anticausatives in Icelandic (Schäfer, 2008; Wood, 2015). As described in the preceding section, the first route involves *-st* merging in the Spec of Voice{D}. No AGENT role is

<sup>47</sup> The intransitive strong verbs have four different stem forms (depending on tense, number, and mood) while their transitive counterparts have one form (Wood, 2015, p. 123). Wood argues that these reflect phonological readjustment rules that apply in the context of Voice{} when Voice{} is spelled out as Ø.

<sup>48</sup> While *brjótast* ‘break into/out of’ is not listed in Thráinsson (2007), it is attested in Wood (2014), though not as an intransitive verb. Wood (2015, p. 67) notes that Thráinsson (2007) focuses on the middle/anticausative use of *-st*, rather than the reflexive use.

assigned, and the result of this is an *-st*-marked anticausative (Wood, 2015). The second route involves the merging of the expletive alloseme  $\text{Voice}_{\{\}}$ , which is realized with null morphology ( $\emptyset$ ) or *-na* (Wood, 2015, p. 113).  $\text{Voice}_{\{\}}$  does not project a specifier position, and no AGENT role is assigned. In this case, *-na* insertion is restricted to the context of certain lexical roots which are listed in its lexical entry. It is not highly productive, with  $\emptyset$  being the default (Wood, 2015). This results in an unmarked or *-na*-marked anticausative, illustrated in (58).

(58) Tree diagram of an unmarked<sup>49</sup> anticausative, based on Wood (2015) and Wood and Marantz (2017).



Wood (2015, p. 160) attributes the instances where the *-st* verb has an idiomatic reading to the post-syntactic interpretation of certain roots in the context of  $\text{Voice}_{\{\}}$  or  $\text{Voice}_{\{D\}}$ . In cases where the *-na*-marked verb has the idiomatic reading in the context, the verb root gets an idiomatic reading in the context of  $\text{Voice}_{\{\}}$ . For example, the root

<sup>49</sup> This would be the structure for a *-na*-marked anticausative, as well.

$\sqrt{\text{GLAÐ}}$  ‘glad’ has the non-idiomatic reading of in ‘make/become glad’ in the context of  $\text{Voice}_{\{D\}}$  and the idiomatic reading of ‘clearing, getting brighter’ in the context of  $\text{Voice}_{\{\}}$  (Sigurðsson, 1989; Wood, 2015). In less frequent cases where the *-st*-marked verb has the idiomatic reading, the verb root has the idiomatic reading in the context of  $\text{Voice}_{\{D\}}$ . For example, the root  $\sqrt{\text{BEYGJA}}$  takes the non-idiomatic unaccusative ‘bend’ meaning in the context of  $\text{Voice}_{\{\}}$  while *beygjast* ‘inflect’ takes the idiomatic reading in the context of  $\text{Voice}_{\{D\}}$  (Thráinsson, 2007; Wood, 2015).

Wood (2015, p. 114) correctly predicts that there are no *-na*-marked *-st* verbs, as *-st* merges in Spec of  $\text{Voice}_{\{D\}}$  and *-na* is the exponent of  $\text{Voice}_{\{\}}$ . Many of the intransitive verbs that are homophonous with their transitive counterparts end in a *-ka* suffix that is present on both the intransitive and transitive verbs. Wood proposes that *-ka* is an exponent of  $v$ . In order to explain why *-na* and *-ka* cannot co-occur, it must be stipulated that it is not possible for  $v$  to be overt when *-na* is present. If  $vP$  is obligatorily agentive, a *-na*-marked anticausative will not be possible as an agentive interpretation of  $\text{Voice}_{\{D\}}$  will be forced. If  $vP$  is obligatorily agentive, a *-st*-marked anticausative will also not be possible, as an agentive interpretation of  $\text{Voice}_{\{D\}}$  would be forced and *-st* cannot bear the AGENT role (Wood, 2015, p. 114).

There are some properties that are shared by both *-na* and *-st* anticausatives. Both types allow the phrase *by itself* and disallow agentive *by*-phrases, indicating non-causativity (Schäfer, 2008; Wood, 2015). Additionally, they both allow *pPs* that name causing events, unaccusative change-of-state events, and unintentional causers (Wood, 2015, p. 141). Wood presents these facts as evidence that both *-na* and *-st* anticausatives are change-of-state unaccusatives.

### 2.3.5 Expletive *p* and figure reflexives

As a structural realization of  $i^*$ , the head  $p$  can project a specifier ( $p_{\{D\}}$ ) or not project a specifier ( $p_{\{\}}$ ), depending on whether it is bundled with a D-feature in the lexicon (Wood & Marantz, 2017). If it does not project a specifier, it is structurally expletive as it is not bundled with a D-feature. If it does project a specifier as it is bundled with a D-feature, it is possible for *-st* to merge in its specifier position (Spec- $pP$ ). If *-st* merges in Spec- $pP$ , it prevents a referential DP from merging in the same position. However, it does not force the expletive alloseme at the stage of interpretation.<sup>50</sup> As the FIGURE role cannot be saturated within the  $pP$ , it passes upwards through the tree and combines with the AGENT role introduced by Voice. Together, they are saturated by the DP in Spec-VoiceP. This results in a figure reflexive, as shown in (59).

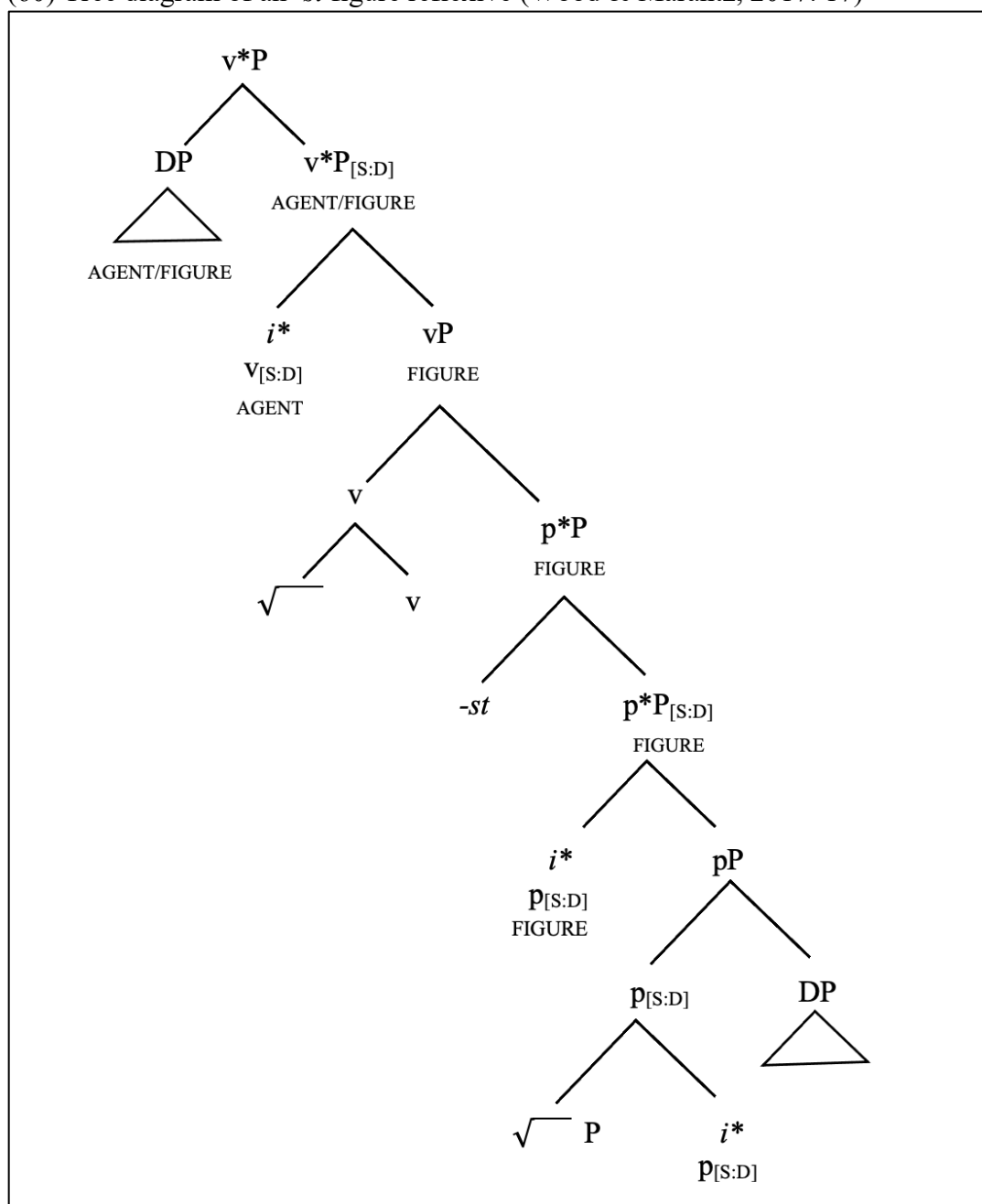
- (59) Bjartur            tróðst            gegnum            mannþröngina  
 Bjartur.NOM    squeezed-ST    through            crowd.the  
 ‘Bjartur squeezed through the crowd.’

(Wood & Marantz, 2017: 12)

The diagram in (60) presents the structure of Icelandic *-st* figure reflexives like (59) under the expletive argument analysis.

---

<sup>50</sup> Though it is possible for  $p$  to have an expletive alloseme, as in (62).

(60) Tree diagram of an *-st* figure reflexive (Wood & Marantz, 2017: 17)

The two thematic roles identify with each other and are saturated by *Bjartur* when it merges in Spec-VoiceP. As *Bjartur* is both the AGENT and the FIGURE, the sentence has a reflexive interpretation. As such, it should be noted that *-st* is not a literal reflexive morpheme, but rather it results in a reflexive interpretation based on the position it merges into (Wood & Marantz, 2017).

It bears emphasis that, like Voice,  $p$  can be expletive either by virtue of not selecting for a specifier or by virtue of  $-st$  merging in its specifier position. Examples of expletive  $p$  are provided in (61) and (62). In such cases, the verb cannot have a causative interpretation, instead being interpreted as an activity (61) or state (62). Note that  $-st$  is not present in (61a), while it is present in (61b).

(61) a. Hann er alltaf að hlæja að mér  
 he is always to laugh at me  
 ‘He is always laughing at me.’

b. Hann er alltaf að hæðast að mér  
 he is always to mock-ST at me  
 ‘He is always mocking me.’

(Wood, 2015: 199)

(62) Kennarinn hatast við mig  
 teacher.the.NOM hates-ST at me  
 ‘The teacher has it in for me.’

(Wood, 2015: 199)

It should be noted that  $-st$  is only necessary for the formation of figure reflexives when the variant of  $i^*$  that selects a DP, referred to as  $p_{\{D\}}$ , is present (Wood, 2015, p. 211). For verb roots that allow  $i^*$  without a D-feature, the  $-st$  is optional. Wood (2015, p. 211) argues that constructions such as (61b) that contain the root  $\sqrt{HÆÐ}$  ‘mock’ and involve the merging of  $-st$  in the Spec- $p$ P are not true figure reflexives, since they have expletive  $p$  and thus no FIGURE interpretation. However, they have the same internal syntactic structure. This is based on the observation that the  $-st$  form allows impersonal passives as in (63) and (64).

(63) Oft var hæðst að mér fyrir sérviskuna  
 often was mocked-ST at me for peculiarity.the  
 ‘I was often mocked for my peculiarity.’

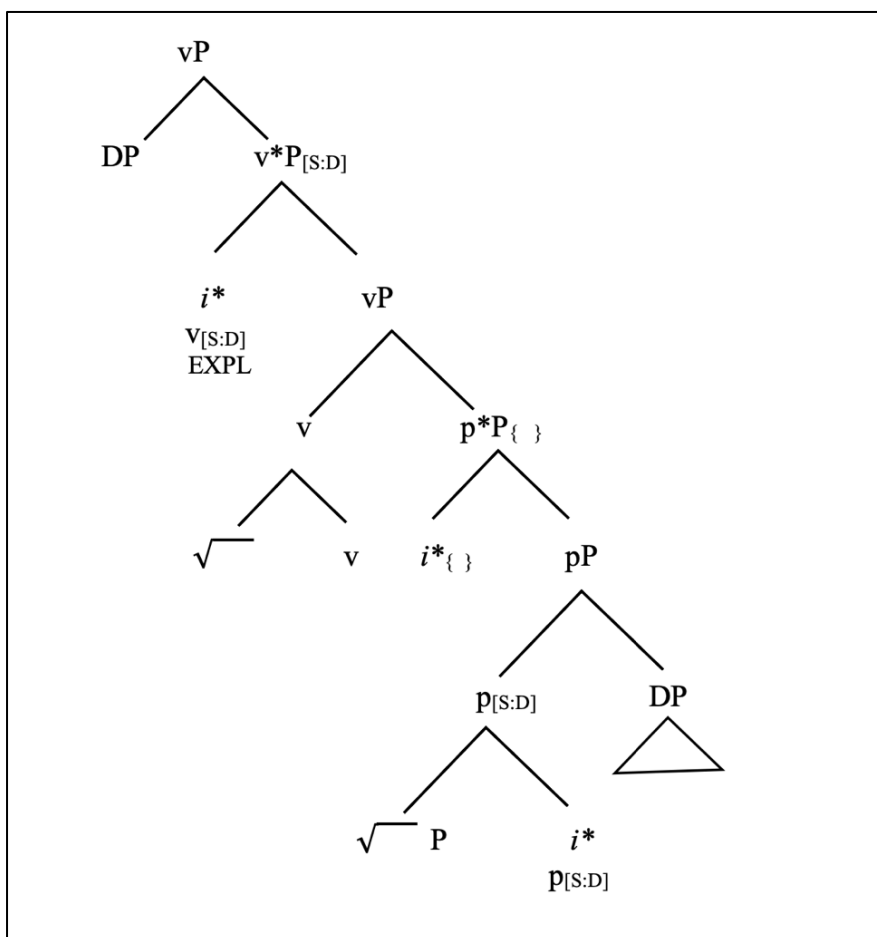
(Wood, 2015: 198)

- (64) Það var troðist gegnum mannþröngina  
 EXPL was squeezed-ST through crowd.the  
 ‘There was squeezing through the crowd.’

(Wood & Marantz, 2017: 13)

There are two routes to forming figure reflexives that are parallel to the routes of forming anticausatives in Icelandic (Wood, 2015). The structurally expletive variant  $p\{\}$  is present in unmarked figure reflexives. This is demonstrated in (65).

(65) Tree diagram of an unmarked figure reflexive, based on Wood (2015) and Wood and Marantz (2017).



If a verb root is incompatible with expletive  $p_{\emptyset}$ <sup>51</sup>, it can form marked figure reflexives with  $p_{\{D\}}$  by merging *-st* in the specifier of  $pP$  (Wood, 2015, p.194).

A summary of the features of Voice and  $p$  that includes their relationship with *-st* is presented in Table 6.

**Table 6. The features of Voice and  $p$  and their interaction with *-st***

<i>Voice</i>	<i>p</i>
<ul style="list-style-type: none"> <li>• <math>i^*</math> attaching to <math>vP</math></li> <li>• can introduce an external argument DP</li> <li>• allows <i>-st</i> to merge instead of DP</li> <li>• introduces AGENT role if <math>vP</math> complement denotes an event that implies an agent</li> </ul>	<ul style="list-style-type: none"> <li>• <math>i^*</math> attaching to a <math>pP</math></li> <li>• can introduce external argument DP of <math>pP</math></li> <li>• allows <i>-st</i> to merge instead of DP</li> <li>• introduces FIGURE role if <math>pP</math> complement denotes a spatial state that implies a figure</li> </ul>

Some roots that take  $p_{\{D\}}$  allow the merging of either *-st* (66a), an overt reflexive pronoun (66b), a non-reflexive pronoun (66c), or a non-pronominal DP (66d).

(66) a. Hann                      tróðst                      gegnum                      mannþröngina  
           he.NOM                      squeezed-ST                      through                      crowd.the.ACC  
           ‘He squeezed through the crowd.’

b. Hann                      tróð                      sér                      gegnum mannþröngina  
           he.NOM                      squeezed                      REFL.DAT                      through crowd.the.ACC  
           ‘He squeezed through the crowd.’

(Wood, 2015: 181)

c. Fíllinn                      tróð                      hann                      undir  
           elephant.the.NOM                      squeezed                      him                      under  
           ‘The elephant trampled him’

(based on Wood, 2015: 177)<sup>52</sup>

e. Bjartur                      tróð                      blýöntunum                      í pokann  
           Bjartur.NOM                      squeezed                      pencils.the.DAT                      in bag.the  
           ‘Bjartur squeezed the pencils into the bag.’

(Wood & Marantz, 2017: 12)

<sup>51</sup> Which is expletive due to its lack of D-features.

<sup>52</sup> The full example is *Var hann að taka myndir úti í runnum þegar fíllinn tróð hann undir*, ‘He was taking pictures out in the bushes when the elephant trampled him’.

Additionally, there are some roots that are only compatible with unmarked figure reflexives ( $p_{\{\}} \}$ ), some that are only compatible with marked figure reflexives ( $p_{\{D\}} + -st$ ), and some that are compatible with either marked or unmarked figure reflexives (Wood, 2014, 2015). These classes of roots are discussed further in Chapter 3.4 and Chapter 4.1.

## 2.4 Summary

This chapter summarized elements of the concepts and previous works that are crucial to the thesis. Following introductory definitions of key terms, the chapter provided a brief description of the features of the Icelandic language that are relevant to the present analysis, with a focus on argument structure types such as *middles*, *passives* (including *impersonal passives*), *reflexives*, *unaccusatives* (including *anticausatives*), and *unergatives*.

A major component of this chapter was dedicated to describing the details of the expletive-argument analysis proposed by Wood (2015) and Wood and Marantz (2017). This began with discussing three factors that influence the interpretation of Voice and  $p$  as variants of the head  $i^*$ . These include categorial feature values (2.3.1), the structural context at the syntax-semantics interface (2.3.2), and the properties of the lexical roots that merge with the head.

Under the expletive-argument analysis, there are two routes for deriving Icelandic anticausatives; one uses an expletive  $\text{Voice}_{\{\}} \}$  head that does not project a specifier to create an unmarked anticausative, and one uses a  $\text{Voice}_{\{D\}} \}$  head that does project a specifier, but has  $-st$  merge in its specifier. As  $-st$  is expletive in that it cannot bear a thematic role, the result is an  $-st$ -marked anticausative. Parallel to these, there are two routes for deriving figure reflexives in Icelandic. One route uses an expletive  $p_{\{\}} \}$  head

that does not project a specifier to create an unmarked figure reflexive, and one uses a  $p_{\{D\}}$  head that does project a specifier, but has *-st* merge in its specifier. The FIGURE role cannot be saturated within the  $pP$ , so it combines with the AGENT. The AGENT/FIGURE role is then assigned to the external argument, which becomes a DP subject. This results in an *-st*-marked figure reflexive.

As described above, the expletive-analysis presented by Wood (2015) and Wood and Marantz (2017) unifies an analysis of *-st* anticausatives (a subtype of unaccusatives) and *-st* figure reflexives. In the following Chapter 3, I test predictions made by the expletive analysis and compare them to the predictions made by an unergative analysis and a derived-subject analysis. I present evidence for an analysis that recognizes three structurally distinct classes of figure reflexives; those that are unergative, those that are figure reflexives, and those that are unaccusatives with derived subjects.

### Chapter 3. An analysis of three classes of figure reflexives

This chapter presents the evidence for an analysis that divides a set of figure reflexives that contain *-st* verbs of motion<sup>53</sup> such as (67) into three classes, based on the analysis that best explains their argument structure.

(67) Bjartur                      tróðst                      gegnum                      mannþröngina  
       Bjartur.NOM                squeezed-ST            through                    crowd.the  
       ‘Bjartur squeezed through the crowd.’

(Wood & Marantz, 2017: 12)

Through testing predictions made by the expletive argument analysis (Chapter 1.3.1 and Chapter 2.3), the unergative analysis (1.3.2), and the derived-subject analysis (1.3.3), the present analysis is novel in that it recognizes the heterogeneous nature of the structure of Icelandic figure reflexives. The predictions made by these analyses are previewed in Chapter 1, shown again in Table 7, and described at the start of Sections 3.2, 3.1, and 3.3 respectively.

**Table 7. Predictions made by three analyses of Icelandic figure reflexives**

<i>Type</i>	EXPLETIVE ARGUMENT	UNERGATIVE	DERIVED-SUBJECT
<i>Figure Reflexive with pP</i>	✓	✓	✓
<i>Figure Reflexive without pP</i>	*	✓	✓
<i>Impersonal Passive with pP</i>	✓	✓	*
<i>Imp. Pass. without pP</i>	✓	✓	*

Using these predictions as diagnostics, I argue below for an unergative analysis of Class 1 verb roots, an expletive argument analysis of Class 2 verb roots, and a derived-subject (unaccusative) analysis of Class 3 verb roots. The verb roots in Class 1 are

<sup>53</sup> As verb roots in the subclass 1C was only found to be acceptable in unmarked examples in the present study, it is strange to refer to them as *-st* verbs of motion. They are included in Class 1 as the present evidence suggests that they are unergative. There is also a possibility that they can occur in *-st*-marked figure reflexives under certain special interpretations, as discussed in Chapter 4.1.1.

subdivided based on whether they are compatible with *-st*-marked figure reflexives, unmarked figure reflexives, or both. This compatibility was also examined for Class 2 and 3 verbs roots, though these classes did not require further subdivision.

**Table 8. Complementary distribution of diagnostics in three classes of Icelandic figure reflexives**

Class	1	2	3
<i>Figure Reflexive with pP</i>	✓	✓	✓
<i>Figure Reflexive without pP</i>	✓	*	✓
<i>Impersonal Passive with pP</i>	✓	✓	*
<i>Impersonal Passive without pP</i>	✓	✓	*
<i>Allows -st-marked or unmarked figure reflexives?</i>	A: Both <i>-st</i> -marked and unmarked B: Only <i>-st</i> -marked C: Only unmarked	Only <i>-st</i> -marked	Only <i>-st</i> -marked
<i>Analysis</i>	<b>Unergative</b>	<b>Expletive argument</b>	<b>Derived-subject</b>

As shown in Table 9, the set of *-st* verbs of motion in Appendix 1<sup>54</sup> can be divided into these three classes as identified by the diagnostics presented in Table 7. As the total set of *-st* verbs of motion under investigation was quite small, the other *-st* verbs of motion in Icelandic may fit into these categories or may require other categories.

**Table 9. Categorization of *-st* verbs of motion into classes**

Class	Verb Roots
1A	<i>trodast</i> ‘squeeze’, <i>böðlast</i> ‘struggle’, <i>dröslast</i> ‘drag’ <sup>55</sup>
1B	<i>þvælast</i> ‘wander’, <i>læðast</i> ‘prowl/sneak’, <i>skrönglast</i> ‘move reluctantly’
1C	<i>hlaupast</i> ‘run/run away’, <i>skreiðast</i> ‘crawl’
2	<i>brjótast</i> ‘break (into/out of)’, <i>dröslast</i> ‘drag’, <i>staulast</i> ‘totter (along)’ <sup>56</sup>
3	<i>laumast</i> ‘sneak’, <i>ryðjast</i> ‘shove’, <i>ryðjast</i> ‘barge’, <i>klöngrast</i> ‘clamber’

For many of the acceptability judgements discussed in the remainder of the chapter, there is variation between speakers. In cases where there was substantial

<sup>54</sup> Based on the list of *-st* verb roots presented in Wood (2014, p. 13).

<sup>55</sup> *dröslast* ‘drag’ was in Class 1A for four of the six participants randomly assigned to it, and it was in Class 2 for the other two participants.

<sup>56</sup> The verb *staulast* ‘totter (along)’ is unique in this set, but its behaviour is most similar to Class 2.

variation, the example is indicated with the % symbol. Wood (2015, p. 45) also notes that there is variation in speaker judgements, especially for impersonal passives. For this reason, Wood notes that the use of impersonal passives as a diagnostic must be done carefully. For this reason, the present analysis is not intended to be steadfast and absolute, as verb roots may belong to different categories for different speakers. Instances of such variation are noted as they arise throughout this chapter, and potential reasons for variation are discussed in Chapter 4.2.1. For the sake of transparency, grammaticality judgements for the entire dataset are presented in Appendix 4, and tables that detail the distribution of judgements for each verb are in Appendix 5. Additionally, Appendix 6 provides a summary table of how the results were interpreted throughout the dataset.

### 3.1 Class 1: Figure Reflexives with properties of unergatives

Under an unergative analysis of *-st* figure reflexives, *-st* is analysed as the morphological realization of an unergative Voice head. As *-st* does not merge in Spec-*pP*, this analysis does not predict an obligatory *pP*. As an AGENT external argument DP becomes the subject, impersonal passives of figure reflexives are predicted to be possible under this analysis. Impersonal passives of figure reflexives are predicted to occur with a *pP* complement, but it is not obligatory. These predictions are summarized in Table 10.

**Table 10. Predictions made by the unergative analysis**

<i>Type</i>	UNERGATIVE
<i>Figure Reflexive with pP</i>	✓
<i>Fig. Refl. without pP</i>	✓
<i>Impersonal Passive with pP</i>	✓
<i>Imp. Pass. without pP</i>	✓

As detailed in the following subsections of Section 3.1, the present analysis classifies figure reflexives involving Class 1 verb roots as unergative based on their ability to occur without pPs and the acceptability of their corresponding impersonal passives. Table 11 summarizes the results of the diagnostic tests for Class 1 verb roots.

**Table 11. Diagnostic behaviour of Class 1 verb roots**

<i>Class</i>	<b>1</b>
<i>Figure Reflexive with pP</i>	✓
<i>Fig. Refl. without pP</i>	✓
<i>Impersonal Passive with pP</i>	✓
<i>Imp. Pass. without pP</i>	✓
<i>Allows -st-marked or unmarked figure reflexives?</i>	A: Both -st-marked and unmarked B: Only -st-marked C: Only unmarked
<i>Analysis</i>	<b>Unergative</b>

Class 1 verb roots are further divided into subclasses based on whether they can occur in -st-marked figure reflexives, unmarked figure reflexives, or both. Class 1A roots can occur in both -st-marked and unmarked figure reflexives, and include the verbs *troðast* ‘squeeze’, *böðlast* ‘struggle’, and *dröslast* ‘drag’<sup>57</sup>. The verbs in Class 1B can only occur in -st-marked figure reflexives, and include *læðast* ‘prowl/sneak’, *skrönglast* ‘move reluctantly’, and *þvælast* ‘wander’. The verbs in Class 1C can only occur in unmarked figure reflexives, including *hlaupast* ‘run/run away’ and *skreiðast* ‘crawl’.<sup>58</sup>

<sup>57</sup> For one participant, *skrönglast* ‘move reluctantly’ was treated as part of Class 1A instead of 1B. This could be connected to the possible non-reflexive transitive counterpart ‘move something reluctantly’ that is present at least in English.

<sup>58</sup> The judgements for Class 1C were different from the judgements presented in Wood (2015) for the same verb roots. This could be due to what some speakers would consider a conjugation error in the present study for  $\sqrt{\text{SKREIÐ}}$  ‘crawl’ and a potential incompatibility of the preposition *gegnum* with the idiomatic interpretation of  $\sqrt{\text{HLAUP}}$  ‘run’. One speaker noted that they consider *skrieddist* to be the optimal form, and that the verb is *skreiðast*, rather than *skriðast*. Interestingly, another participant noted the exact opposite when *skreiðast* was presented. The diversity in judgements for Class 1C figure reflexives is likely due to this difference.

The possibility of figure reflexives in general is a necessity for all three analyses of figure reflexives under consideration. For Class 1A, all participants judged figure reflexives such as (68) to be grammatical.

- (68) Bjartur tróðst gegnum mannþröngina  
 Bjartur.NOM squeezed-ST through crowd.the  
 ‘Bjartur squeezed through the crowd.’  
 (Wood & Marantz, 2017:12)

This was also the case for Class 1B, as in (69).

- (69) Bjartur læddist gegnum mannþröngina  
 Bjartur.NOM prowled -ST through crowd.the  
 ‘Bjartur prowled through the crowd.’

The verbs in Class 1C tend to disallow *-st*-marked figure reflexives (70a). In this case the ?\* symbol indicates the optimal translation, though it was still considered unacceptable by most speakers.<sup>59</sup> In contrast, most speakers found unmarked figure reflexives to be acceptable for (70b).

- (70) a. \*Bjartur hljópst gegnum mannþröngina  
 Bjartur.NOM ran-ST through crowd.the  
 ?\*‘Bjartur ran through the crowd.’  
 \*‘Bjartur ran (away) through the crowd.’
- b. Bjartur hljóp gegnum mannþröngina  
 Bjartur.NOM ran through crowd.the.ACC  
 ‘Bjartur ran through the crowd’.

As there were speakers that found (70a) marginally acceptable, and there is evidence that Class 1C unmarked figure reflexives such as (70b) are unergative, they are included in Class 1.

<sup>59</sup> Of the three participants assigned to *skreiðast* ‘crawl’ and the four assigned to *hlaupast* ‘run/run away’, one rated the *-st* variants as ‘possibly acceptable but uncommon’ (3/5) and ‘unacceptable but understandable’ (2/5) instead of ‘completely unacceptable’ (1/5).

### 3.1.1 Optional prepositional phrases in Class 1 *-st* figure reflexives

Under the expletive argument analysis of Icelandic figure reflexives, the reflexive interpretation arises when *-st* merges in Spec-pP (Wood, 2015). Thus, this analysis predicts that the prepositional phrase would be required in all cases of *-st* figure reflexives. This prediction would be supported if sentences without a PP such as (71), (72), and (73) do not allow a figure reflexive interpretation, if they are at all possible. Based on the judgements of the participants, sentences such as (71) were usually considered acceptable for the verbs in Class 1A.

- (71) Bjartur            tróðst  
       Bjartur.NOM    squeezed-ST  
       ‘Bjartur squeezed (himself).’

Some speakers found (71) a bit unusual, noting that it would be better if it were spoken in a context-rich situation, such as a situation that would explain why or where someone was *squeezing*. Other speakers found (71) to be completely acceptable, demonstrating that the prepositional phrase is not always required for a figure reflexive reading for these *-st*-marked figure reflexives. One speaker noted that the verb *tróðast* has the meaning ‘(rudely) push one's way, barge’, and that it does not require a directional prepositional phrase for that sense. They also note that this would be most natural in the context of ellipsis, as in *Most people entered in an orderly fashion. Bjartur [on the other hand] pushed his way.*

For Class 1B *-st*-marked figure reflexives, the pP is not required for the sentence to have a reflexive interpretation, as shown in (72). This is something that Classes 1A and 1B have in common.

- (72) Bjartur læddist  
 Bjartur.NOM prowled-ST  
 ‘Bjartur prowled (moving himself).’  
 \*‘Bjartur prowled (in place).’  
 \*‘Bjartur prowled (moving something).’

Note that (72) also shows that the *pP* is not necessary for a motion reading. The stationary reading (*\*Bjartur prowled in place*) is not permitted in place of the reflexive (*moving himself*) and non-reflexive (*moving something*) motion readings. A participant noted that, for them, (72) is only acceptable in an ellipsis context, like *Halldóra and Jón walked into the room as if nothing had happened. Bjartur tiptoed [in].*

For all participants, the judgements for the Class 1C *-st*-marked figure reflexives that lacked prepositional phrases (73) were the same as those that include prepositional phrases.<sup>60</sup>

- (73) \*Bjartur hljópst  
 Bjartur.NOM ran-ST  
 ?\*Bjartur ran (moving from one place to another).’  
 \*‘Bjartur ran (in place).’  
 \*‘Bjartur ran (away).’

The expletive argument analysis attributes the reflexive interpretation to the merging of *-st* in Spec-*pP*, so the possibility for a reflexive interpretation to arise without a *pP* contests the expletive argument analysis (Chapter 1.3.1). In comparison, this does not contest an unergative analysis (Chapter 1.3.2) or a derived-subject analysis (Chapter 1.3.3), as both do not predict an obligatory *pP*.

### 3.1.2 Impersonal passives of Class 1 *-st*-marked figure reflexives

As impersonal passives are possible for unergatives but not for unaccusatives, the possibility of impersonal passives of figure reflexives can serve as a diagnostic between

---

<sup>60</sup> Meaning that one participant rated the Class 1C *-st* variants as ‘possibly acceptable but uncommon’ (3/5) and ‘unacceptable but understandable’ (2/5) instead of ‘completely unacceptable’ (1/5).

these two analyses. For this reason, I compared the acceptability judgements of figure reflexives (68) to those for impersonal passives of figure reflexives (74).

- (74) Þá var troðist gegnum mannþröngina  
 then was squeezed-ST through crowd.the.ACC  
 ‘Then there was squeezing through the crowd.’

(Wood, 2015:179)

Participants judged sentences like (74) to be grammatical for class 1A. This demonstrates that *-st* can be associated with impersonal passives of figure reflexives that involve verbs of motion like the ones in Class 1A. Based on this, and in combination with the optionality of the *pP*<sup>61</sup>, an unergative analysis is supported for Class 1A figure reflexives.

Participants also found impersonal passives of *-st*-marked figure reflexives to be grammatical for Class 1B, as in (75).

- (75) Þá var læðst gegnum mannþröngina  
 then was prowled-ST through crowd.the.ACC  
 ‘Then there was prowling (moving oneself) through the crowd.’

For the same reasons as Class 1A, the possibility of impersonal passives of Class 1B *-st*-marked figure reflexives illustrated in (75) demonstrates that they are syntactically unergative for most speakers<sup>62</sup>.

The judgements for the impersonal passives of the *-st*-marked figure reflexives also matched the preceding judgements for Class 1C, as shown in (76).

- (76) %Þá var hlaupist gegnum mannþröngina  
 then was ran-ST through crowd.the.ACC  
 %‘Then there was running through the crowd.’

<sup>61</sup> The possibility of impersonal passives alone does not distinguish between an unergative analysis and an expletive argument analysis.

<sup>62</sup> 1/5 of the participants for *læðast* ‘prowl/sneak’ noted that they would consider (76) more grammatical with sufficient pragmatic context.

These *-st* variants of the verbs in Class 1C seem to involve directed motion, for speakers that marginally allow them. As they can occur in impersonal passives, an unergative analysis of (77) is supported for speakers that marginally allow the *-st* variants.

- (77) Bjartur            hljópst            (gegnum        mannþröngina)  
 Bjartur.NOM    ran-ST            (through        crowd.the)  
 ‘Bjartur ran through the crowd.’

*Note: Judgements for speakers who marginally allow -st-marked figure reflexives for Class 1C verb roots*

As shown in (77) and discussed in the following subsection, for speakers who found impersonal passives of Class 1C *-st*-marked figure reflexives acceptable or marginally acceptable, a *pP* was not required. Judgements for speakers that do not allow the *-st* variants are presented in (78). For these speakers, only unmarked figure reflexives are possible.

- (78) \*Bjartur        hljópst        gegnum        mannþröngina  
 Bjartur.NOM    ran-ST        through        crowd.the  
 \*Bjartur ran through the crowd.’

*Note: Judgements for speakers who only allow unmarked figure reflexives for Class 1C verb roots*

A discussion of the unmarked uses of Class 1C verb roots is returned to in Section 3.1.4.

### 3.1.3 Impersonal passives without prepositional phrases in Class 1

Under an expletive-argument analysis, prepositional phrases are obligatory in impersonal passives of figure reflexives, as *-st* would merge in Spec-*pP* in such structures as well. In contrast to figure reflexives, some unergative *-st* verbs can occur without a prepositional phrase, as in (79) (Anderson, 1990).

- (79) Það    er        barist  
 EXPL    is        fought-ST  
 ‘Someone is fighting.’

(Anderson, 1990: 9)

If impersonal passives of figure reflexives are possible and can occur without a prepositional phrase, this serves as evidence that *-st* cannot be merging in *spec-pP*. The goal of this section is to use these predictions as an additional diagnostic between the unergative analysis and the expletive argument analysis. Whether or not the prepositional phrase is required in impersonal passives of figure reflexives does not distinguish between the unergative analysis and the derived-subject analysis, as the possibility of impersonal passives contests the derived-subject analysis either way.

For the verbs in Class 1A, judgements on sentences such as (80) were mixed but tended towards moderate ratings of marginal grammaticality. There was also one participant who consistently rated them as perfectly acceptable.

- (80) #*Þá* var troðist  
       then was squeezed-ST  
       ‘Then there was squeezing (of oneself).’

As it is occasionally possible for impersonal passives of figure reflexives to lack a *pP*, this further supports the hypothesis that Class 1A *-st* figure reflexives are syntactically unergative and lack a syntactically expressed FIGURE role. However, if they are only permissible in contexts where the FIGURE is highly contextually salient<sup>63</sup>, then it would not provide strong support for the unergative analysis. Some speakers may require or strongly prefer a prepositional phrase in impersonal passives of Class 1A figure reflexives. For such speakers, an expletive-argument analysis would be supported for Class 1A verbs.

For Class 1B *st*-marked ‘figure reflexives’, it is possible for impersonal passives to lack a *pP*, as in (81).

---

<sup>63</sup> Where the intended figure is so clear from the situational, pragmatic, or discourse context that it does not need to be overtly expressed.

- (81) Þá var læðst  
 then was prowled -ST  
 ‘Then there was prowling (moving oneself).’

This further supports the hypothesis that Class 1B figure reflexives are syntactically unergative and lack a FIGURE role.

There was a minor difference in the judgements for each member of the Class 1C verb roots. For *hlaupast* ‘run/run away’, the judgements for impersonal passives in Class 1C were the same for those that contain *pPs* as in (78), and those that do not, as in (82).

- (82) \*?Þá var hlaupist  
 then was ran-ST  
 ?\*‘Then there was running (oneself).’

Upon omission of the *pP*, the acceptability judgement for *skreiðast* ‘crawl’ increased<sup>64</sup> for the speaker who allowed Class 1C *-st* variants. In such cases where it is possible for the impersonal passives of figure reflexives to lack a *pP*, an analysis that figure reflexives are syntactically unergative and lack a FIGURE role is further supported.

### 3.1.4 *-st*-marked vs. unmarked figure reflexives in Class 1

The goal of this section is to demonstrate the differences between Class 1A, Class 1B, and Class 1C verb roots in terms of whether they can occur in *-st*-marked figure reflexives, unmarked figure reflexives, or both. As noted by Wood (2015), some verb roots are compatible with marked figure reflexives, as in (83).

- (83) a. Bjartur tróðst gegnum mannþröngina.  
 Bjartur.NOM squeezed-ST through crowd.the  
 ‘Bjartur squeezed through the crowd.’  
 (Wood & Marantz, 2017: 12)
- b. Bjartur læddist gegnum mannþröngina  
 Bjartur.NOM prowled-ST through crowd.the  
 ‘Bjartur prowled through the crowd.’

<sup>64</sup> From 3/5 to 4/5.

Under an expletive argument analysis, as in Wood and Marantz (2017), these involve a  $p_{\{D\}}$  plus the *-st* morpheme and would require a  $pP$ . Some verb roots are compatible with unmarked figure reflexives, composed of  $(p_{\{\}})$  under the expletive argument analysis, and some verb roots are compatible with both unmarked and marked figure reflexives. In this section, I examine whether any of the verb roots that are compatible with marked figure reflexives are also compatible with unmarked figure reflexives. I also consider whether there are differences in interpretation between the *-st* and non-*-st* counterparts.

Wood (2015) notes that unmarked figure reflexives are possible because motion is inherent or implied in the interpretation of the root. Extending this to the present analysis, if a verb root can occur without a prepositional phrase in an *-st* marked figure reflexive and can also occur in an unmarked figure reflexive, this suggests that the verb root has inherent or implied directed motion. Conversely, if a verb root can only occur in a marked figure reflexive, it suggests that the root does not have inherently directed motion under that interpretation.

As Class 1A verbs can occur in *-st* figure reflexives that can occur without a  $pP$ , it is important to determine if they can occur in unmarked figure reflexives. If so, this would demonstrate that these verb roots are inherently figure reflexive under a specific motion interpretation. A potential unmarked figure reflexive is provided in (84).

- (84) #Bjartur tróð gegnum mannþröngina  
 Bjartur.NOM squeezed through crowd.the.ACC  
 \*‘Bjartur squeezed through the crowd’.

There was some variability across participants in the overall grammaticality of sentences such as (84) for Class 1A, but the figure reflexive interpretation was ruled out quite consistently for most speakers. In cases where speakers do not allow figure

reflexive interpretations for sentences like (84) and (85) for any subset of the Class 1A verb roots, those roots would be members of Class 1B instead for those speakers. For most speakers who considered (84) to be grammatical, the non-reflexive interpretation in (85) was possible while the reflexive interpretation was impossible. This is expanded on in Section 3.2.7.

- (85) #Bjartur      tróð            gegnum      mannþröngina  
       Bjartur.NOM    squeezed      through      crowd.the.ACC  
       \*‘Bjartur squeezed (himself) through the crowd.’  
       ‘Bjartur squeezed (something) while moving through the crowd.’

This is likely connected to the fact that the verb roots in Class 1A may also occur in non-reflexive transitives, which will be discussed in 3.2.7.

Despite the variation in acceptability for Class 1A unmarked figure reflexives that blurs the boundary between Class 1A and Class 1B, a distinction is drawn between Class 1A and Class 1B in terms of their compatibility with *-st*-marked and unmarked figure reflexives as Class 1A unmarked figure reflexives are marginally to moderately acceptable for some speakers. While Class 1A verb roots can be compatible with both *-st*-marked and unmarked figure reflexives, Class 1B roots are only compatible with marked figure reflexives for most participants<sup>65</sup>. To demonstrate, an ungrammatical unmarked figure reflexive is provided in (86)<sup>66</sup>.

- (86) \*Bjartur      læddi            gegnum      mannþröngina  
       Bjartur.NOM    prowled      through      crowd.the.ACC  
       \*‘Bjartur prowled through the crowd.’

<sup>65</sup> Not all participants rated (86) at 1/5, the average was 1.5/5.

<sup>66</sup> For *þvælast* ‘wander’, one speaker found the unmarked figure reflexive set to be generally acceptable (4/5) and the unmarked impersonal passive pair to be odd but acceptable (3/5).

As the Class 1B verb roots can only occur in *-st*-marked figure reflexives, it suggests that they do not have inherently directed motion under reflexive interpretations<sup>67</sup> (Wood, 2015). The unmarked variants of some Class 1B verb roots are acceptable in transitive clauses with an overtly expressed dative object. This is seen in (87), where  $\sqrt{\text{LÆÐA}}$  means 'sneak something/someone somewhere' (Gunnar Hansson, personal communication).

- (87) Bjartur        læddi lyklinum        í        vasann  
 Bjartur.NOM    snuck key.the.DAT    into    pocket.the.ACC  
 'Bjartur snuck the key into the pocket'  
 (Gunnar Hansson, p.c.)

The verbs in Class 1C are not compatible with *-st*-marked figure reflexives; they are only compatible with the unmarked variants. These unmarked figure reflexives involve verbs of self-directed motion that lack *-st*, as in (88).

- (88) Bjartur        hljóp gegnum        mannþröngina  
 Bjartur.NOM    ran    through        crowd.the.ACC  
 'Bjartur ran through the crowd'.

When verb roots that can occur in *-st*-marked figure reflexives without *pPs* can also occur in unmarked figure reflexives, it can confirm that those roots are inherently 'figure reflexive' under a specific motion interpretation. As Wood (2015) notes, unmarked figure reflexives are possible because motion is inherent or implied. As the verbs in Class 1C can only occur in unmarked figure reflexives, it suggests that they have inherent or strongly implied motion.

In Table 12, I summarize the distribution of the phenomena discussed in the preceding subsections for Class 1 *-st*-marked figure reflexives and I present the

---

<sup>67</sup> As long as they are not ungrammatical for other morphosyntactic reasons.

distribution of phenomena for Class 1 unmarked figure reflexives that will be discussed in the following subsections.

**Table 12. Distribution of phenomena for Group 1 -st-marked and unmarked figure reflexives.**

<i>Type</i>	<i>-st-marked</i>	<i>unmarked</i>
<b>Class 1A</b>		
<i>Figure Reflexive with pP</i>	✓	% <sup>68</sup>
<i>Fig. Refl. without pP</i>	✓	✓
<i>Impersonal Passive with pP</i>	✓	%
<i>Imp. Pass. without pP</i>	✓	✓
<b>Class 1B</b>		
<i>Figure Reflexive with pP</i>	✓	*
<i>Fig. Refl. without pP</i>	✓	* <sup>69</sup>
<i>Impersonal Passive with pP</i>	✓	*
<i>Imp. Pass. without pP</i>	✓	*
<b>Class 1C</b>		
<i>Figure Reflexive with pP</i>	*	✓
<i>Fig. Refl. without pP</i>	*	✓
<i>Impersonal Passive with pP</i>	*	✓
<i>Imp. Pass. without pP</i>	*	✓

The following subsections discuss the implications of obligatory and optional *pP*s in unmarked figure reflexives and impersonal passives of figure reflexives in Class 1A, Class 1B, and Class 1C.

### 3.1.5 Prepositional phrases in Class 1 unmarked figure reflexives

When unmarked figure reflexives can occur without a *pP*, it suggests that a non-reflexive transitive motion interpretation of the root is more natural (Wood, 2015). Extending this to the present analysis, this is especially the case if the impersonal passive is considered

<sup>68</sup> The % symbol is used to indicate variability between speakers.

<sup>69</sup> When the prepositional phrases were removed from Class 1B unmarked figure reflexives and their corresponding impersonal passives, their acceptability was judged to be higher, but only for non-reflexive interpretations.



- (91) Bjartur hljóp  
 Bjartur.NOM ran  
 ‘Bjartur ran (from one place to another).’ (100% accepted)  
 ‘Bjartur ran (away).’ (25% accepted)  
 ‘Bjartur ran (in place).’ (50% accepted)

This supports the analysis that a motion interpretation is natural for Class 1C roots.

### 3.1.6 Impersonal passives of Class 1 unmarked figure reflexives

As impersonal passives require an agentive predicate, they are only allowed under an unergative analysis and an expletive argument analysis, but not a derived-subject analysis. Impersonal passives of Class 1 unmarked figure reflexives such as (92) are acceptable for some speakers.

- (92) %Þá var troðið gegnum mannþröngina  
 then was squeezed through crowd.the.ACC  
 %‘Then there was squeezing (of oneself) through the crowd.’  
 %‘Then there was squeezing (of something) through the crowd.’

This suggests that Class 1 unmarked figure reflexives are either syntactically unergative or are unmarked figure reflexives as defined in the expletive argument analysis.

As shown in (93), impersonal passives of unmarked figure reflexives can occur without a *pP*, and in fact they tend to be rated as more acceptable with a non-reflexive interpretation when there is no *pP* present. This suggests that a non-reflexive transitive motion interpretation is more natural for the unmarked verb root, especially as the non-reflexive impersonal passive is considered grammatical and the active unmarked figure reflexive itself is not considered grammatical.

- (93) Þá var troðið  
 then was squeezed  
 \*‘Then there was squeezing (of oneself).’  
 ‘Then there was squeezing (of something).’

(based on Wood, 2015: 181)

Wood (2014, 2015) notes that unmarked figure reflexives may force special motion interpretations of non-motion roots and non-literal motion readings of typical inherent motion roots. This may be occurring in the exceptional cases; speakers who do permit figure reflexive readings of unmarked Class 1A verb roots in certain contexts may be accommodating an ‘inherent motion’ interpretation in those contexts. Possible special senses of the verb roots were accounted for in the survey, to see if there are differences in the interpretation of the verb roots in *-st*-marked and unmarked figure reflexives. There was a non-literal interpretation reported for *troðast* ‘squeeze’; the sentence in (93) was considered to be perfectly grammatical for the reading presented in (94).

- (94) Þá var troðið  
 then was squeezed  
 ‘Then it was packed (with people).’

Impersonal passives of Class 1B unmarked figure reflexives are not possible whether they include a *pP* (95) or lack a *pP* (96).

- (95) \*Þá var lætt gegnum mannþröngina  
 then was prowled through crowd.the.ACC  
 \*‘Then there was prowling (moving oneself) through the crowd.’  
 \*‘Then there was prowling (moving something) through the crowd.’
- (96) \*Þá var lætt  
 then was prowled  
 \*‘Then there was prowling (moving oneself).’  
 \*‘Then there was prowling (moving something).’  
 \*‘Then there was prowling (in place).’

This seems to be due to the overarching ungrammaticality of the unmarked figure reflexive, paired with a lack of non-reflexive transitive alternatives for interpretation.

Impersonal passives of Class 1C unmarked figure reflexives were consistently rated as acceptable, as shown in (97).

- (97) Þá var hlaupið gegnum mannþröngina  
 then was running through crowd.the.ACC  
 ‘Then there was running through the crowd.’

This demonstrates that Class 1C unmarked ‘figure reflexives’ are syntactically unergative.<sup>70,71</sup> The version without the prepositional phrase is given in (98), and was also consistently rated as acceptable.

- (98) Þá var hlaupið  
 then was running  
 ‘There was running (moving oneself).’

For two participants, (98) was rated higher than the impersonal passive that contained the *pP* (97). For four participants the ratings did not change between (97) and (98), and for one participant the rating slightly decreased for (98). The acceptability of (98) supports the analysis that (99) is syntactically unergative and does not have a syntactically expressed FIGURE role.

- (99) Bjartur hljóp gegnum mannþröngina  
 Bjartur.NOM ran through crowd.the.ACC  
 ‘Bjartur ran through the crowd’.

As Class 1C unmarked figure reflexives are syntactically unergative, they are included in the set of unergative Class 1 verb roots even though Class 1C verb roots did not occur in *-st*-marked figure reflexives.<sup>72</sup>

### 3.1.7 Non-reflexive interpretations in Class 1

There was an unexpected result in the reviewer stage where the unmarked figure reflexives were marked as ungrammatical, but the impersonal passives of those same

<sup>70</sup> This is also possible under the Expletive-Argument Analysis, so it is only diagnostic in tandem with the optionality of the prepositional phrase.

<sup>71</sup> One speaker noted that, for them, this type of impersonal clause usually implies a 1SG or a 1PL agent.

<sup>72</sup> As based on the data collected in the thesis survey, though there may be substantial variability, as discussed in Chapter 4.2.1.

unmarked figure reflexives were considered acceptable. This could possibly be due to the supine form (Chapter 2.1.2) being shared between impersonal passives, impersonal actives, and certain passives in Icelandic, which could result in impersonal passives of reflexives and double passives of transitive actives having the same form.<sup>73</sup> For this reason, non-reflexive interpretations of the verb roots were considered in the survey alongside the reflexive interpretations. This was done by adding the phrases (*something*), (*himself*), (*of oneself*), and (*of something*) to the list of potential interpretations of each verb, as shown in (100).

- (100)a. Bjartur            tróðst            gegnum            mannþröngina  
           Bjartur.NOM    squeezed-ST    through            crowd.the.ACC  
           ‘Bjartur squeezed through the crowd.’  
           \*‘Bjartur squeezed (something) while moving through the crowd.’
- b. Bjartur            tróðst  
           Bjartur.NOM    squeezed-ST  
           ‘Bjartur squeezed (himself).’  
           \*‘Bjartur squeezed (something).’
- c. Þá            var            troðist            gegnum            mannþröngina  
           then        was        squeezed-ST    through            crowd.the.ACC  
           ‘Then there was squeezing (of oneself) through the crowd.’  
           \*‘Then there was squeezing (of something) through the crowd.’
- d. Þá            var            troðist  
           then        was        squeezed-ST  
           ‘Then there was squeezing (of oneself).’  
           \*‘Then there was squeezing (of something).’
- e.#Bjartur            tróð            gegnum            mannþröngina  
           Bjartur.NOM    squeezed        through            crowd.the.ACC  
           \*‘Bjartur squeezed (himself) through the crowd.’  
           ‘Bjartur squeezed (something) while moving through the crowd.’

---

<sup>73</sup> Thanks to Martha McGinnis for suggesting that this unexpected result may be connected to an alternation between active transitives, passives, and double passives that may be identical to impersonal passives of unergatives.

- f. Bjartur            tróð  
 Bjartur.NOM    squeezed  
 \*‘Bjartur squeezed (himself).’  
 ‘Bjartur squeezed (something).’
- g.#Þá        var        troðið            gegnum            mannþröngina  
 then    was    squeezed        through        crowd.the.ACC  
 #‘Then there was squeezing (of oneself) through the crowd.’  
 #‘Then there was squeezing (of something) through the crowd.’
- h. Þá        var        troðið  
 then    was    squeezed  
 \*‘Then there was squeezing (of oneself).’  
 ‘Then there was squeezing (of something).’

For Class 1A, a reflexive interpretation was allowed in the *-st*-marked variants, as seen in (100a) to (100d). In the unmarked variants, the non-reflexive interpretation was usually preferred. One speaker noted that, for them, the unmarked *troða* requires an overtly expressed object in order to have the meaning ‘squeeze’. The only context in which it would work without the object would be in the sense *troða* ‘to dunk (as in basketball)’. The speaker who noted the ‘dunk’ interpretation of unmarked *troða* found that the unmarked impersonal passive that lacked a prepositional phrase was only acceptable under the ‘dunk (as in basketball)’ reading<sup>74</sup>. Otherwise, lacking a *pP* improved the acceptability of the unmarked variants, but only for the non-reflexive transitive interpretation of the root, as in *squeeze something*, *struggle to move something*, *drag something*. This is seen in (100f) and (100h). If a reflexive interpretation was accepted for the unmarked variant, it was only for those that included the *pP*, as in (100g). Speakers who allowed the reflexive interpretation in (100g) did so consistently for all three verbs in Class 1A.

---

<sup>74</sup> As not all participants indicated this alternative reading or others like it, it is possible that such alternatives are a source of variation in the judgement ratings provided.

When expanding the dataset to include transitive interpretations for Class 1B, the addition of alternative interpretations did not seem to change the patterns of the results, as shown in (101) and (102).

(101) \*Þá var lætt gegnum mannþröngina  
 then was prowled through crowd.the.ACC  
 \*‘Then there was prowling (moving oneself) through the crowd.’  
 \*‘Then there was prowling (moving something) through the crowd.’

(102) \*Þá var lætt  
 then was prowled  
 \*‘Then there was prowling (moving oneself).’  
 \*‘Then there was prowling (moving something).’  
 \*‘Then there was prowling (in place).’

One participant noted that the verb *læða* only works as a transitive with a dative object, as in to *sneak something/someone somewhere*.

### 3.1.8 Patterns in Class 1 root meaning

The verbs in Class 1A all seem to be externally motivated manner of motion verbs with non-reflexive counterparts. Squeezing, struggling, and dragging are all manners of motion that seem to be hampered by a separate entity or set of entities (the thing(s) that need to be squeezed or squeezed through, struggled against, or dragged over), while the movement itself may be agentive. Each of these ‘externally-hampered manner of motion’ verbs all have non-reflexive transitive counterparts (squeeze oneself/squeeze something, struggle to move oneself/struggle to move something, drag oneself/drag something).

The verb roots in Class 1B are all manner of motion verbs, and they are mixed in terms of whether they have a non-reflexive counterpart for their figure reflexives. Apart from *þvælast* ‘wander’<sup>75</sup>, they do not necessarily have a direct path encoded.

---

<sup>75</sup> Though even *þvælast* ‘wander’ does not seem to have much of a direct path encoded.

The verbs in Class 1C include *hlaupast* ‘run/run away’ and *skreiðast* ‘crawl’, which are both intransitive manner of motion verbs that do not appear to have obvious non-reflexive counterparts.<sup>76</sup>

### 3.1.9 Summary for Class 1

Table 13 summarizes the acceptability judgements that the participants gave for the verbs in Class 1A. The key results are that the *pP* is not always required for a reflexive reading for the *-st*-marked figure reflexives and the corresponding impersonal passives are acceptable. The % symbol is used to indicate variability between speakers.

**Table 13. Acceptability judgements for Class 1A**

<i>Verbs: troðast</i> ‘squeeze’, <i>böðlast</i> ‘struggle’, <i>dröslast</i> ‘drag’ <sup>77</sup> ,		
Type	-st	no -st
Figure Reflexive with <i>pP</i>	✓	%
Fig. Refl. with no <i>pP</i>	✓	✓
Impersonal Passive with <i>pP</i>	✓	%
Imp. Pass. with no <i>pP</i>	✓	✓

Based on this, an unergative analysis is supported for clauses that contain Class 1A verbs. By this analysis, (103) is structurally unergative and the FIGURE role is not obligatory for the reflexive reading.

- (103) Bjartur            tróðst            gegnum            mannþröngina  
 Bjartur.NOM    squeezed-ST    through            crowd.the.ACC  
 ‘Bjartur squeezed through the crowd.’

\*‘Bjartur squeezed (something) while moving through the crowd.’

Table 14 presents a summary of the acceptability judgements for Class 1B. Only the *-st* variants were accepted.

<sup>76</sup> No non-reflexive translations were accepted (though if there are other conjugations of the verbs that do allow for a non-reflexive interpretation, these judgements could be due to experimenter error in compiling the dataset).

<sup>77</sup> *dröslast* ‘drag’ was in Class 1A for four of the six participants randomly assigned to it; it was in Class 2 for the other two participants.

**Table 14. Acceptability judgements for Class 1B**

<b>Verbs:</b> <i>þvælast</i> ‘wander’, <i>læðast</i> ‘prowl/sneak’, <i>skrönglast</i> ‘move reluctantly’		
<i>Type</i>	<i>-st</i>	<i>no -st</i>
<i>Figure Reflexive with pP</i>	✓	*
<i>Fig. Refl. with no pP</i>	✓	*78
<i>Impersonal Passive with pP</i>	✓	*
<i>Imp. Pass. with no pP</i>	✓	*

A summary of the acceptability judgements for the verbs in Class 1C is presented in Table 15. The key point here is that only the non-*st* variants were accepted by the majority of the participants. Relative to the grammaticality judgements for the ‘figure reflexives’, prepositional phrases were not required and impersonal passives were permitted. Impersonal passives without prepositional phrases were most often judged to at least equally as acceptable as impersonal passives with prepositional phrases, and more acceptable for some participants.

**Table 15. Acceptability judgements for Class 1C**

<b>Verbs:</b> <i>hlaupast</i> ‘run/run away’, <i>skreiðast</i> ‘crawl’		
<i>Type</i>	<i>-st</i>	<i>no -st</i>
<i>Figure Reflexive with pP</i>	*	✓
<i>Fig. Refl. without pP</i>	*	✓
<i>Impersonal Passive with pP</i>	*	✓
<i>Imp. Pass. without pP</i>	*	✓

Based on these results, the unergative analysis is supported for verbs in Class 1C, as in (104). It is also supported for (105), in exceptional cases where (105) is considered marginally acceptable.

- (104) Bjartur            hljóp gegnum            mannþröngina  
           Bjartur.NOM ran through            crowd.the.ACC  
           ‘Bjartur ran through the crowd.’

<sup>78</sup> When the prepositional phrases were removed from Class 1B unmarked figure reflexives and their corresponding impersonal passives, their acceptability was judged to be higher, but only for non-reflexive interpretations.

- (105) \*Bjartur hljópst gegnum mannþröngina  
 Bjartur.NOM ran-ST through crowd.the  
 ?\*Bjartur ran through the crowd.'  
 \*'Bjartur ran away through the crowd.'

In summary, despite their differences, all Class 1 'figure reflexives' are structurally unergative. Based on the unergative analysis described in Chapter 1.3.2, Class 1 'figure reflexives' are characterized by an unergative Voice head and have an optional  $p\{\}$ . For Class 1A and 1B *-st*-marked unergatives, *-st* is a morphological realization of the unergative Voice head under this analysis. For Class 1A and 1C unmarked unergatives, *-st* is not present and the unergative Voice head is not overtly morphologically realized. For all Class 1 unergatives, in this analysis the subject DP is the external argument, bearing the AGENT role.

### 3.2 Class 2: Figure reflexives with *-st* as an expletive argument

The expletive argument analysis of Wood (2015) and Wood and Marantz (2017) predicts that *-st* figure reflexives are possible and require a  $pP$ , as *-st* merges in Spec- $pP$ . As figure reflexives are agentive under this analysis, it allows for impersonal passives of figure reflexives that have an obligatory  $pP$ .<sup>79</sup> These predictions are displayed in Table 16.

**Table 16. Predictions made by the expletive argument analysis**

Type	EXPLETIVE ARGUMENT
Figure Reflexive with $pP$	✓
Fig. Refl. without $pP$	*
Impersonal Passive with $pP$	✓
Imp. Pass. with no $pP$	*

<sup>79</sup> The structure of impersonal passives of Class 2 *-st*-marked figure reflexives is a matter left for future work.

As detailed in the subsections of Section 3.2, *-st*-marked figure reflexives involving Class 2 verb roots are best accounted for under an expletive argument analysis. This is based primarily on the obligatoriness of *pPs*, as presented in Table 17.

**Table 17. Diagnostic behaviour of Class 2 verb roots**

<i>Class</i>	<b>2</b>
<i>Figure Reflexive with pP</i>	✓
<i>Fig. Refl. without pP</i>	*
<i>Impersonal Passive with pP</i>	✓
<i>Imp. Pass. without pP</i>	*
<i>Allows -st-marked or unmarked figure reflexives?</i>	Only <i>-st</i> -marked
<i>Analysis</i>	<b>Expletive argument</b>

Based on the results of the present study, the verbs in Class 2 include *brjótast* ‘break (into/out of)’ and *dröslast* ‘drag’.<sup>80</sup> The verb *staulast* ‘totter (along)’ patterns in a unique way, but its behaviour is most similar to the verbs in Class 2 so it will be discussed alongside them and separated when a distinction is necessary. *Brjótast* ‘break (into/out of)’ and *dröslast* ‘drag’ are both verbs that can be reflexive or non-reflexive, while *staulast* ‘totter (along)’ does not seem to be non-reflexive in any context.

### 3.2.1 Obligatory prepositional phrases in Class 2 *-st*-marked figure reflexives

For Class 2, *-st*-marked figure reflexives were considered to be grammatical, as in (106).

- (106) Bjartur           braust           gegnum           mannþröngina  
 Bjartur.NOM   broke-ST       through       crowd.the  
 ‘Bjartur broke through the crowd.’  
 \*‘Bjartur broke (something) while moving through the crowd.’

Note that only the ‘reflexive’ interpretation is judged acceptable; the non-reflexive interpretation of *braust* ‘broke’ is not permitted.

<sup>80</sup> *dröslast* ‘drag’ was in Class 2 for two of the six speakers; it was in Class 1A for the other four speakers.

With this section, I argue for an expletive-argument analysis for Class 2 verb roots, based on the diagnostic of obligatory prepositional phrases. In contrast to Class 1, the prepositional phrase in Class 2 examples like (106) is required for a grammatical figure reflexive interpretation. This is demonstrated by the ungrammaticality of (107).

- (107) \*Bjartur           braust  
           Bjartur.NOM  broke-ST  
           ?\*Bjartur broke (into movement).'  
           \*‘Bjartur broke (something).'

In (107), the reflexive interpretation is marginally better than the non-reflexive interpretation, which is not permitted. Under the expletive argument analysis of Icelandic figure reflexives, the reflexive interpretation arises when *-st* merges in Spec-*pP* (Wood, 2015). As it is not possible for Class 2 figure reflexives to have a reflexive-like interpretation in the absence of a prepositional phrase, this supports an expletive argument analysis of (106). This is because *-st* merges in Spec-*pP* under the expletive argument analysis, so it predicts an obligatory *pP* for *-st*-marked figure reflexives. The derived-subject analysis and the unergative analysis do not predict an obligatory *pP*, though a directional prepositional phrase might be required for some verb roots to get the right reading under an unergative analysis (Martha McGinnis, personal communication).

### 3.2.2 Impersonal passives of Class 2 *-st*-marked figure reflexives

Both an expletive-argument analysis and an unergative analysis allow for impersonal passives. The purpose of this section is to rule out a derived-subject analysis based on the possibility of impersonal passives for Class 2 figure reflexives. As shown in (108), impersonal passives of Class 2 figure reflexives were judged to be acceptable under a reflexive interpretation, but not a non-reflexive interpretation.

- (108) Þá var brotist gegnum mannþröngina  
 then was broke-ST through crowd.the.ACC  
 ‘Then there was breaking through the crowd (moving oneself)’  
 \*‘Then there was breaking (of something) through the crowd.’

This indicates that they are impersonal passives of the figure reflexives, rather than impersonal passives based on transitive actives. The possibility of impersonal passives suggests that Class 2 figure reflexives do not have a derived subject, because impersonal passives can only be formed with agentive predicates. If Class 2 figure reflexives had derived subjects, there would be no AGENT role assigned and the impersonal passive would not be possible.

Moreover, the prepositional phrase in (108) is required for the sentence to be considered grammatical. This is illustrated by the ungrammaticality of (109).

- (109) \*Þá var brotist  
 then was broke-ST  
 ?\*‘Then there was breaking (moving oneself).’  
 \*‘Then there was breaking (of something).’

Similar to (107), sentences like (109) were considered ungrammatical for the Class 2 *-st*-marked examples. One participant indicated that the reflexive interpretation was slightly better than the non-reflexive interpretation, though still ungrammatical. As (109) demonstrates that the reflexive reading is not possible in the absence of a prepositional phrase, it provides additional support for the expletive argument analysis, by contrast with an unergative analysis. It also does not support a derived-subject analysis, as the established possibility of impersonal passives contests this analysis for Class 2.

### 3.2.3 *-st*-marked vs. unmarked figure reflexives in Class 2

As discussed in Section 3.1.4 for Class 1 verb roots, Wood (2015) proposes that unmarked figure reflexives are possible when motion is inherent or implied in their

interpretation. For the present analysis, if verb roots can occur without a prepositional phrase in *-st* marked figure reflexives and can also occur in unmarked figure reflexives, this suggests that they have inherent or implied directed motion. In contrast, if verb roots can only occur in marked figure reflexives, it suggests that they do not have inherently directed motion under that interpretation. The purpose of this section is to demonstrate that Class 2 verb roots are only compatible with *-st*-marked figure reflexives, and not with true unmarked figure reflexives, as seen in the ungrammaticality of (110).

- (110) \*?Bjartur braut gegnum mannþröngina  
 Bjartur.NOM broke through crowd.the.ACC  
 \*‘Bjartur broke through the crowd.’  
 \*?‘Bjartur broke (something) while moving through the crowd.’

As the Class 2 *-st*-marked figure reflexives require a *pP*, and the same verb roots cannot occur in unmarked figure reflexives, this suggests that the verb roots are not inherently ‘figure reflexive’ and that they do not have an inherent directed motion interpretation (Wood, 2015).

### 3.2.4 Absent prepositional phrases allow non-reflexive interpretations for unmarked Class 2 verbs

As the Class 2 unmarked figure reflexives are ungrammatical, it was expected that the counterparts that lack *pPs* would also be ungrammatical. Interestingly, their acceptability ratings increased for all participants for both *brjótast* ‘break (into/out of)’ and *dröslast* ‘drag’, as shown in (111). However, they only increased for the non-reflexive reading as in *Bjartur broke (something)*, rather than for the figure reflexive reading. They did not increase for *staulast* ‘totter (along)’, which is the primary difference between *staulast* and the other Class 2 verbs.

- (111) Bjartur braut  
 Bjartur.NOM broke  
 \*‘Bjartur broke (moving himself).’  
 ?\*‘Bjartur broke (something).’

If unmarked figure reflexives can occur without a *pP*, this suggests that a non-reflexive transitive motion interpretation may be more natural for the verb root in this syntactic context, especially if the figure reflexive itself is not considered grammatical.

### 3.2.5 Impersonal passives of Class 2 unmarked figure reflexives

Parallel to *-st*-marked figure reflexives, the ability for unmarked figure reflexives to occur in impersonal passives is predicted by both the unergative analysis and the expletive argument analysis. As illustrated in (112) impersonal passives of Class 2 unmarked figure reflexives are not permitted, though the non-reflexive reading was considered to be less ungrammatical than the reflexive reading.

- (112) \*Þá var brotið gegnum mannþröngina  
 then was breaking through crowd.the.ACC  
 \*‘Then there was breaking through the crowd (moving oneself).’  
 ?\*‘Then there was breaking (of something) through the crowd.’

As shown in (113), the impersonal passive without the prepositional phrase is rated as more acceptable than the version with the prepositional phrase, but only for the non-reflexive transitive interpretation. This feature is shared by Class 1A and Class 2 unmarked figure reflexives.

- (113) #Þá var brotið  
 then was breaking  
 \*‘Then there was breaking (moving oneself).’  
 ?\*‘Then there was breaking (of something).’

The analysis that the transitive interpretation enables the increase in the grammaticality ratings for (113) is supported by the fact that *staulast* ‘totter (along)’ has

no non-reflexive reading available<sup>81</sup>, and its grammaticality ratings did not improve when the *pP* was absent, as shown in (114).

- (114)a. \*Þá var staulað gegnum mannþröngina  
 then was tottered through crowd.the.ACC  
 \*‘Then there was tottering through the crowd.’  
 \*‘Then there was tottering along through the crowd.’
- b. \*Þá var staulað  
 then was tottered  
 \*‘Then there was tottering.’  
 \*‘Then there was tottering along.’  
 \*‘Then there was tottering (moving oneself from one place to another).’  
 \*‘Then there was tottering (in place).’

This is further supported when considering the acceptability of the reflexive and non-reflexive interpretations in (115), where the reflexive interpretation is favoured for the *-st* variants in (115a) to (d), and that the *pP* is required as demonstrated by (b) and (d).

- (115)a. Bjartur braust gegnum mannþröngina  
 Bjartur.NOM broke -ST through crowd.the.ACC  
 ‘Bjartur broke through the crowd.’  
 \*‘Bjartur broke (something) while moving through the crowd.’
- b. \*Bjartur braust  
 Bjartur.NOM broke-ST  
 ?\*‘Bjartur broke (into movement).’  
 \*‘Bjartur broke (something).’
- c. Þá var brotist gegnum mannþröngina  
 then was broke-ST through crowd.the.ACC  
 ‘Then there was breaking through the crowd (moving oneself)’  
 \*‘Then there was breaking (of something) through the crowd.’
- d. \*Þá var brotist  
 then was broke-ST  
 ?\*‘Then there was breaking (moving oneself).’  
 \*‘Then there was breaking (of something).’

---

<sup>81</sup> There is no clear non-reflexive equivalent for ‘totter (along)’ in English, I am assuming that this is also the case in Icelandic as no participants indicated that there was a separate transitive reading in the survey.

For the corresponding unmarked variants in (116a) to (d), only the non-reflexive interpretation is allowed. In contrast to the *-st* variants, this results in ungrammaticality for the sentences that contain the unmarked verb and a *pP*.

- (116)a. \*Bjartur braut gegnum mannþröngina  
 Bjartur.NOM broke through crowd.the.ACC  
 \*‘Bjartur broke through the crowd.’  
 ?\*‘Bjartur broke (something) while moving through the crowd.’
- b. #Bjartur braut  
 Bjartur.NOM broke  
 \*‘Bjartur broke (moving himself).’  
 ‘Bjartur broke (something).’
- c. \*Þá var brotið gegnum mannþröngina  
 then was broke through crowd.the.ACC  
 \*‘Then there was breaking through the crowd (moving oneself).’  
 ?\*‘Then there was breaking (of something) through the crowd.’
- d. #Þá var brotið  
 then was broke  
 \*‘Then there was breaking (moving oneself).’  
 ‘Then there was breaking (of something).’

The grammaticality of (116b) and (116d) improves for the verbs *brjótask* ‘break (into/out of)’ and *dröslast* ‘drag’, likely due to the lack of a *pP* that would be incompatible with the non-reflexive interpretation.

### 3.2.6 Summary for Class 2

In Table 18, a summary of the acceptability judgements for the key phenomena involving Class 2 verb roots is presented.

**Table 18. Acceptability judgements for Class 2**

<b>Verbs:</b> <i>brjótast</i> ‘break (into/out of)’, <i>dröslast</i> ‘drag’, <i>staulast</i> ‘totter (along)’		
<b>Type</b>	<b>-st</b>	<b>no -st</b>
<i>Figure Reflexive with pP</i>	✓	*
<i>Fig. Refl. without pP</i>	*	* <sup>82</sup>
<i>Impersonal Passive with pP</i>	✓	*
<i>Imp. Pass. without pP</i>	*	*

The key fact here is that the *pP* is required for the *-st*-marked figure reflexives, which is a core difference between Classes 1 and 2. Additionally, the non-*st* counterparts are only possible when the non-reflexive transitive interpretation of the root occurs and there is no *pP*. There were two speakers that allowed both reflexive and non-reflexive interpretations for impersonal passives, but the presence of an overt subject like *Bjartur* instead of an expletive subject requires that all instances of *Bjartur* plus an *-st* marked root have a reflexive interpretation, and *Bjartur* plus an unmarked root are non-reflexive.

As the expletive argument analysis predicts an obligatory *pP* and allows for (but does not require) impersonal passives, it is the analysis that best accounts for the structure of sentences such as (117) that contain Class 2 verbs.

- (117) *Bjartur braust gegnum mannþröngina*  
*Bjartur.NOM broke -ST through crowd.the.ACC*  
 ‘*Bjartur* broke through the crowd.’  
 \*‘*Bjartur* broke (something) while moving through the crowd.’

While the possibility of impersonal passives suggests that (117) could be unergative, the difference between Classes 1 and 2 in terms of the *pP* requirement suggests that they are distinct classes, and they could differ in terms of the presence of a

<sup>82</sup> When the prepositional phrases were removed from Class 2 unmarked figure reflexives and their corresponding impersonal passives, their acceptability was judged to be higher, but only for non-reflexive interpretations.

FIGURE role. It is also interesting that there is variation between speakers in terms of whether they categorize *dröslast* ‘drag’ as a part of Class 1A or Class 2.

Following the expletive-argument analysis described in Chapters 1.3.1 and 2.3, sentences involving Class 2 verb roots contain the syntactic heads  $\text{Voice}_{\{D\}}$  and an obligatory  $p_{\{D\}}$ . In these cases,  $p_{\{D\}}$  is obligatory because *-st* needs to merge in  $\text{Spec-}pP$  for the FIGURE role to be introduced and passed up to Voice where it can combine with the AGENT role. The AGENT/FIGURE can then be assigned to the external argument DP, which then raises to the subject position.<sup>83</sup>

### 3.3 Class 3: Figure reflexives with properties of derived-subject unaccusatives

A derived-subject (unaccusative) analysis of *-st* figure reflexives requires a Voice head that projects a specifier, as *-st* merges in the  $\text{Spec-Voice}P$ <sup>84</sup>. As *-st* does not occur in  $\text{Spec-}pP$  in this analysis, a  $pP$  complement is possible but not obligatory. The criterion that is treated as a diagnostic of this analysis is that impersonal passives of figure reflexives are not predicted. This is because a non-agentive internal argument DP becomes the subject under this analysis, and the *-st* occupying  $\text{Spec-Voice}P$  cannot bear the AGENT role. These predictions are summarized in Table 19.

**Table 19. Predictions made by the derived subject analysis**

<i>Type</i>	DERIVED-SUBJECT
<i>Figure Reflexive with pP</i>	✓
<i>Fig. Refl. without pP</i>	✓
<i>Impersonal Passive with pP</i>	*
<i>Imp. Pass. without pP</i>	*

<sup>83</sup> As the figure reflexive interpretation arises from the combination of the FIGURE/AGENT role in the active counterpart, it is uncertain how theta-role assignment would work in impersonal passives of Class 2 *-st*-marked figure reflexives. For this reason, the structure of impersonal passives of Class 2 *-st*-marked figure reflexives is a matter left for future work.

<sup>84</sup> Though this is not the only possible derived-subject analysis.

As elaborated on in the rest of Section 3.1 and presented in Table 19, *-st*-marked figure reflexives that include Class 3 verb roots do not require prepositional phrases and do not allow corresponding impersonal passives. As a result, they are classified as unaccusatives and are best accounted for under a derived-subject analysis.

**Table 20. Diagnostic behaviour of Class 3 verb roots**

<i>Type</i>	<b>3</b>
<i>Figure Reflexive with pP</i>	✓
<i>Fig. Refl. without pP</i>	✓
<i>Impersonal Passive with pP</i>	*
<i>Imp. Pass. without pP</i>	*
<i>Allows -st-marked or unmarked figure reflexives?</i>	Only <i>-st</i> -marked
<i>Analysis</i>	<b>Derived-subject</b>

Based on their behaviour in the diagnostic tests, Class 3 verb roots include *laumast* ‘sneak’, *ryðjast* ‘shove’, *ryðjast* ‘barge’, and *klöngrast* ‘clamber’.

### 3.3.1 Optional prepositional phrases in Class 3 *-st*-marked figure reflexives

The example in (118) demonstrates that *-st*-marked figure reflexives are possible for Class 3, as for 1A and 1B.

- (118) Bjartur            laumaðist            gegnum            mannþröngina  
 Bjartur.NOM    sneaked-ST    through            crowd.the.ACC  
 ‘Bjartur sneaked through the crowd.’

The purpose of this section is to rule out an expletive-argument analysis of Class 3 *-st*-marked figure reflexives based on the fact that it predicts an obligatory *pP*, in order for *-st* to merge in Spec-*pP*. As shown in (119), Class 3 *-st*-marked figure reflexives are perfectly acceptable even without a *pP*.

- (119) Bjartur            laumaðist  
 Bjartur.NOM    sneaked-ST  
 ‘Bjartur sneaked (in place).’  
 ‘Bjartur sneaked (moving himself).’  
 \*‘Bjartur sneaked (moving something).’  
 ‘Bjartur sneaked (concealing himself).’  
 #‘Bjartur sneaked (concealing something).’  
 ‘Bjartur tried to go unnoticed (moving himself).’

As the *pP* is not necessary, this contests an expletive argument analysis but allows for an unergative analysis or a derived-subject analysis. Note that the reflexive readings are more acceptable when compared to the non-reflexive readings, as this is relevant in the following section on impersonal passives.

### 3.3.2 Impersonal passives of Class 3 *-st*-marked figure reflexives

There are similarities between Class 3 and Class 1B, in that they both allow optional *pPs* for *-st*-marked figure reflexives and do not allow unmarked figure reflexives, as will be discussed in the following section. The purpose of this section is to demonstrate that a derived-subject analysis best accounts for Class 3 *-st*-marked figure reflexives based on the diagnostic of impersonal passives of *-st*-marked figure reflexives. This is where Class 1B and Class 3 diverge; Class 1B allows for impersonal passives of *-st* figure reflexives, while Class 3 does not. The \*? in (120) is used to indicate that the sentence was rated as ‘2/5 = unacceptable, but understandable’<sup>85,86</sup>.

- (120) \*?Þá        var        laumast        gegnum        mannþröngina  
           then    was        sneaked-ST    through        crowd.the.ACC  
 \*?‘Then there was sneaking (moving oneself) through the crowd.’  
 \*‘Then there was sneaking (moving something) through the crowd.’  
 \*?‘Then there was sneaking (concealing oneself) through the crowd.’  
 \*‘Then there was sneaking (concealing something) through the crowd.’

<sup>85</sup> For the other verbs in Class 3, the average rating for impersonal passives of *-st*-marked figure reflexives was approximately 1.6 out of 5.

<sup>86</sup> This symbol is also used within this thesis to indicate marginal acceptability.

This supports a derived-subject analysis of sentences like (118) that contain Class 3 verbs, rather than an expletive argument analysis or an unergative analysis.<sup>87</sup> Removing the *pP* in (120) has no impact on the acceptability of the sentence, as shown in (121).

- (121) \*?Þá      var      laumast  
           then    was      sneaked-ST  
           \*‘Then there was sneaking (moving/concealing oneself).’  
           \*‘Then there was sneaking (moving/concealing something).’

It is also worth noting that the reflexive interpretations were judged to be more natural than the non-reflexive interpretations in (120) and (121). This demonstrates that (120) and (121) are impersonal passives of figure reflexives, rather than impersonal passives of non-reflexive unergatives. Recall that reflexive readings were more acceptable than non-reflexive readings for (118), as well.

### 3.3.3 *-st*-marked vs. unmarked figure reflexives in Class 3

Recall that unmarked figure reflexives are possible when motion is inherent or implied in their interpretation (Wood, 2015). If verb roots can occur without *pPs* in *-st*-marked figure reflexives and can also occur in unmarked figure reflexives, it suggests that they have inherent or implied directed motion. If verb roots can only occur in marked figure reflexives, it suggests that they do not have inherently directed motion under that interpretation. The purpose of this section is to demonstrate that unmarked figure reflexives do not seem to be possible for Class 3 verbs, as in (122). In (122), an ungrammatical Class 3 unmarked ‘figure reflexive’ is demonstrated.

- (122) \*Bjartur            laumaði            gegnum            mannþröngina  
           Bjartur.NOM    sneaked            through            crowd.the.ACC  
           \*‘Bjartur sneaked through the crowd.’

---

<sup>87</sup> While this demonstrates that they are structurally unaccusative, it is uncertain how the agentive-like interpretation is possible for sentences like (120). The details of the structure of impersonal passives of Class 3 figure reflexives and the remaining semantically implied agentivity are matters that are left for future research.

For the sake of comparison, a version that lacks a prepositional phrase is given in (123). For some speakers, examples like (123) were considered more acceptable than their counterparts like (122).<sup>88</sup> Participants who rated (123) as more grammatical indicated that the non-reflexive interpretations were optimal, rather than the reflexive interpretations.

- (123) %Bjartur        laumaði  
           Bjartur.NOM   sneaked  
           \*‘Bjartur sneaked (moving/concealing himself).’  
           ?\*‘Bjartur sneaked (moving/concealing something).’

This pattern continues in the impersonal passive of the unmarked figure reflexive which is shown in (124), and the version without the prepositional phrase that is given in (125). As above, the % is used to indicate variation between speakers.

- (124) %Þá        var        laumað        gegnum        mannþröngina  
           then    was        sneaking        through        crowd.the.ACC  
           \*‘Then there was sneaking through the crowd.’  
           ?\*‘Then there was sneaking (moving something) through the crowd.’  
           \*‘Then there was sneaking (concealing oneself) through the crowd.’  
           ?\*‘Then there was sneaking (concealing something) through the crowd.’
- (125) %Þá        var        laumað  
           then    was        sneaked  
           \*‘Then there was sneaking (moving/concealing oneself).’  
           ‘Then there was sneaking (moving/concealing something).’

For speakers who rated (124) and (125) as acceptable, the non-reflexive interpretations were considered to be optimal. This may show that (124) and (125) are impersonal passives of non-reflexive unergatives, rather than impersonal passives of figure reflexives. This suggests that the examples in (122) to (125) are more connected to non-reflexive unergatives than they are to ‘figure reflexives’, in having non-reflexive semantics and unergative syntax. This is supported by the fact that some participants

---

<sup>88</sup> In cases like this, variation in the participant ratings is indicated with the symbol %.

indicated that sentences like (122) and (123) would be more grammatical if they had an overtly expressed direct object. Additionally, the main trend in verb root meaning in Class 3 is that many of the roots allow a non-reflexive transitive use.

### 3.3.4 Summary for Class 3

Table 21 presents a summary of the acceptability judgements for the sentences that include Class 3 verbs. The most important point is that the impersonal passives of *-st*-marked figure reflexives are marginally accepted for some speakers, at best. Additionally, the *pP* is not required for the *-st* figure reflexive reading.

**Table 21. Acceptability judgements for Class 3**

<b>Verbs: <i>laumast</i> ‘sneak’, <i>ryðjast</i> ‘shove’, <i>ryðjast</i> ‘barge’, <i>klöngrast</i> ‘clamber’</b>		
<i>Type</i>	<i>-st marked</i>	<i>unmarked</i>
<i>Figure Reflexive with pP</i>	✓	*
<i>Fig. Refl. without pP</i>	✓	*
<i>Impersonal Passive with pP</i>	* <sup>89</sup>	*
<i>Imp. Pass. without pP</i>	*	*

These points support a derived-subject analysis instead of an expletive argument analysis or an unergative analysis for sentences such as (126) that contain Class 3 verbs.

- (126) Bjartur            laumaðist        gegnum            mannþröngina  
           Bjartur.NOM    sneaked-ST      through            crowd.the.ACC  
           ‘Bjartur sneaked through the crowd.’

Based on the assumptions made about Voice and *p* in the present thesis, following Wood (2015) and the derived-subject analysis presented in Chapter 1.3.2, syntactically unaccusative<sup>90</sup> sentences like (126) involve Voice<sub>{D}</sub> and an optional p<sub>{D}</sub>. In these cases,

<sup>89</sup> Though marginally acceptable for some speakers.

<sup>90</sup> Though there is implied agentivity for the motion (if not the manner) component of the root, which is characteristic of middles and not unaccusatives. Wood (2015) notes that Schäfer (2008) argues that middles are a special interpretation of anticausatives (a subtype of unaccusative).

*-st* occupies Spec-VoiceP. The derived DP subject is a raised copy of the internal argument.<sup>91</sup>

### 3.4 Chapter summary

Based on the results of the diagnostic tests introduced in this chapter, I conclude under the theoretical assumptions outlined in Chapter 1 that figure reflexives that contain Class 1A, Class 1B, and Class 1C verb roots are best accounted for through the unergative analysis described in Chapter 1.3.2. Figure reflexives that contain Class 2 verb roots are best accounted for through an expletive argument analysis, described in Chapter 1.3.1. Class 3 verb roots are best described through a derived-subject (or unaccusative) analysis, outlined in Chapter 1.3.3. A summary of the analysis is presented in (127).

- (127) a. Class 1: unergative analysis  
       Class 1A: allows both *-st*-marked and unmarked figure reflexives  
               Roots: *troðast* ‘squeeze’, *böðlast* ‘struggle’, *dröslast* ‘drag’<sup>91</sup>  
       Class 1B: only allows *-st*-marked figure reflexives  
               Roots: *þvælast* ‘wander’, *læðast* ‘prowl/sneak’, *skrönglast* ‘move reluctantly’  
       Class 1C: only allow unmarked figure reflexives  
               Roots: *hlaupast* ‘run/run away’, *skreiðast* ‘crawl’
- b. Class 2: expletive argument analysis  
       Class 2: only allows *-st*-marked figure reflexives  
               Roots: *brjótast* ‘break (into/out of)’, *dröslast* ‘drag’, *staulast* ‘totter (along)’
- c. Class 3: derived-subject analysis  
       Class 3: only allows *-st*-marked figure reflexives  
               Roots: *laumast* ‘sneak’, *ryðjast* ‘shove’, *ryðjast* ‘barge’, *klöngrast* ‘clamber’

---

<sup>91</sup> An issue remains in terms of how a reflexive (or reflexive-like) interpretation arises for Class 3 figure reflexives. In analyses like Sportiche (1990), a reflexive interpretation arises when the reflexive external argument is bound by the moved internal argument. As *-st* cannot bear an AGENT role, it would be expected that there would be no syntactically introduced AGENT, as in anticausatives. Alternatively, an implicit agent could be present, as in middles. Thank you to Martha McGinnis and Leslie Saxon for their comments on this issue.

Under the assumptions outlined in Chapter 1 and using the alloemes for the Voice and *p* heads introduced in Wood (2015) and Wood and Marantz (2017), Table 22 summarizes the complementary distribution of positions for *-st* in these classes<sup>92</sup>.

**Table 22. Summary of *-st* position and head alloeme distribution for each class**

Class and structure	Voice head	<i>p</i> head	Position of <i>-st</i>	Subject DP
<b>Class 1:</b> <i>Unergative</i>	Voice <sub>{D}</sub> -ST <sup>93</sup>	optional <i>p</i> <sub>{}</sub>	Voice head	External argument, AGENT role
<b>Class 2:</b> <i>Expletive argument</i>	Voice <sub>{D}</sub>	obligatory <i>p</i> <sub>{D}</sub>	Spec- <i>p</i> P	External argument, AGENT/FIGURE role
<b>Class 3:</b> <i>Derived-subject</i>	Voice <sub>{D}</sub>	optional <i>p</i> <sub>{D}</sub>	Spec-VoiceP	Raised internal argument

This distribution suggests that there is underspecification of *-st* morphology between unaccusatives with derived subjects, unergatives, and expletive clitic figure reflexives. For Class 2 roots, which occur in expletive-argument figure reflexives, when *-st* merges in the specifier position of an obligatory *p*P, the subsequent combination of a FIGURE role with the AGENT role results in a figure reflexive interpretation<sup>94</sup>. For all other verb root classes, the semantics of the root seems to imply that the AGENT is also the FIGURE when combined with a discourse context of motion or when combined with the syntactic context of a *p*P complement. It does not seem necessary that the FIGURE is introduced syntactically (McGinnis & Moser, 2020).

<sup>92</sup> Tree diagrams for these analyses can be found in Chapters 1.3.1, 1.3.2, and 1.3.3.

<sup>93</sup> For Class 1A and 1C unmarked unergatives, Voice would have to be unmarked, perhaps Voice<sub>{D}</sub>∅.

<sup>94</sup> As described in Section 1.3.1 and expanded on in Chapter 2.3.

## Chapter 4. Further Implications and Future Directions

In this chapter, I discuss further implications of the present analysis and possible directions for future work. In section 4.1, I reflect further on the results presented in the preceding chapters and discuss their potential implications for a few related issues.

Section 4.2 discusses possible directions for future work. Section 4.3 closes the thesis with a summary of the main points and some concluding remarks.

### 4.1 Additional topics

Extending the topics considered in the first three chapters, three additional topics are discussed here as they are relevant to the present analysis. These include the variable interpretation of verb roots, the prediction of simultaneously expletive *p* and Voice made by Wood (2015), and the issue of whether *-st* is a head instead of a specifier.

#### 4.1.1 The variable interpretation of verb roots

This section presents a set of variables that impact the interpretation of verb roots. It has been demonstrated that all of the verb roots in Class 2 are compatible with an expletive argument analysis of *-st*-marked figure reflexives, under which they are formed with  $p_{\{D\}}$  with an *-st* in spec-*pP*. As there is an available specifier position, the expletive argument analysis predicts that it would be possible for reflexive pronouns, non-reflexive pronouns, and non-pronominal DPs to occupy this position. However, there are some verbs that do not allow a reflexive pronoun in this position, but do allow *-st* (Wood, 2015). This is shown in (128), where the ungrammatical (128a) has the overt reflexive pronoun *sér* and the grammatical (128b) has *-st*.

- (128) a. \*Hann            skreiddi            sér            fram    úr            rúminu  
           he.NOM            crawled            REFL.DAT    out    of            bed  
           ‘He crawled out of bed.’

- b. Hann            skreiddist    fram    úr    rúminu  
 he.NOM        crawled-ST    out    of    bed  
 ‘He crawled out of bed.’ (Wood, 2015: 189)<sup>95</sup>

There are also some verb roots that only allow a reflexive pronoun, as shown in (128) where the grammatical (129a) has the overt reflexive pronoun *sér* and the ungrammatical (129b) has *-st* instead.

- (129)a. Markmaðurinn        kastaði sér                    á    boltann  
 goal.keeper.the        threw REFL.DAT            on    ball.the  
 ‘The goalkeeper threw himself the ball.’
- b. \*Markmaðurinn        kastaðist                    á    boltann  
 goal.keeper.the        threw-ST                    at    ball.the  
 ‘The goalkeeper threw himself the ball.’ (Wood, 2015: 190)

Wood (2015) attributes the contrast between (128) and (129) to event structure, and uses the examples in (130) to explain this difference. In (130), the verb *troðast* can occur with two different event structures. In (130a), an entity *x* moves *y*. As figure reflexives form a complex predicate, under Wood’s analysis *x* moves *x* in (130b)<sup>96</sup> (Wood, 2015).

- (130) a. Hann    tróð                    sér                    inn    í    holuna  
 he    squeezed            REFL.DAT            in    to    hole.the  
 ‘He squeezed (himself) into the hole.’
- b. Hann    tróðst                    inn    í    holuna  
 he    squeezed-ST            in    to    hole.the  
 ‘He pushed his way around to squeeze into the hole.’

In (128), the verb root  $\sqrt{\text{SKREIÐ}}$  ‘crawl’ is only compatible with event structures that involve two instances of a single variable *x*, as in (130b). It is not compatible with event structures that involve *x* and *y*. In contrast, the verb root  $\sqrt{\text{KASTA}}$  ‘throw’ is only

<sup>95</sup> The judgements for  $\sqrt{\text{SKREIÐ}}$  ‘crawl’ and  $\sqrt{\text{HLAUP}}$  ‘run’ were different in the present study from the judgements presented in Wood (2015). This could be due to a conjugation error in the present study for  $\sqrt{\text{SKREIÐ}}$  ‘crawl’ and a potential incompatibility of the preposition *gegnum* with the idiomatic interpretation of  $\sqrt{\text{HLAUP}}$  ‘run’.

<sup>96</sup> Wood notes that this is quite simplified, and that (130a) and (130b) can mean the same thing truth conditionally, despite the difference in event structure.

compatible with event structures that involve  $x$  and  $y$  (130a), while it is not compatible with event structures that involve two instances of a single variable  $x$  (130b) (Wood, 2015, p. 190). For roots like  $\sqrt{\text{KASTA}}$  ‘throw’, event structures are expressed through phrasal categories like the reflexive pronoun *sér*.

Another factor in the interpretation of verb roots is that there tend to be slight differences in interpretation between *-st*-marked and unmarked figure reflexives, though their arguments and thematic roles in marked and unmarked figure reflexives are the same (Wood, 2015, p. 205). There are several factors that influence whether a root is compatible with *-st*-marked figure reflexives (using  $p_{\{D\}}$  under an expletive argument analysis), unmarked figure reflexives (using  $p_{\{ \}}$ , under an expletive argument analysis), or both. By the analysis presented in Wood (2015) and in line with Distributed Morphology (DM), the interpretation of the root is post-syntactic. The root meanings are conditioned by the properties of the  $v$  head and are constrained by both the event structure of the  $vP$  and the encyclopedic meaning of the entities in the structure.

In a clause with both DP and  $pP$  complements, the head of the  $pP$  is  $p_{\{D\}}$ , as in (131a). In a clause that only has a  $pP$  complement, the head of the  $pP$  is  $p_{\{ \}}$ , as in (131b) (Wood, 2015, p. 195).

(131) a. *Ég ætla að skjóta henni í búðina*  
 I.NOM intend to shoot her.DAT to shop.the.ACC  
 ‘I’m going to run her over to the shop.’ (usually driving)

b. *Ég ætla að skjótast í búðina*  
 I.NOM intend to shoot-ST to shop.the.ACC  
 ‘I’m going to run over to the shop.’ (not necessarily driving)

(Wood, 2015: 195)

Under Wood’s expletive argument analysis, the meaning of the verb root influences the *p* alloseme<sup>97</sup>, depending on whether the root has inherently directed motion or a naturally causative interpretation. Unmarked figure reflexives, formed with *p*{ }, have a tendency to be inherently directed (Wood, 2015). Inherently directed verbs are those with meanings like ‘walk’, ‘run’, ‘swim’, and ‘stroll’. This is supported by the present findings for Class 1C verbs, including the root  $\sqrt{\text{HLAUP}}$  ‘run’, which were judged to be more grammatical in the unmarked figure reflexives than in *-st*-marked ones. Wood (2015) notes that such verb roots need to be modified by a phrase like *in place* for the inherent direction to be removed (p. 196).

Using *-st* with roots that tend to occur in unmarked figure reflexives results in an idiomatic or non-literal interpretation of the root, as in (132). Here, the root  $\sqrt{\text{HLAUP}}$  ‘run’ is compatible with unmarked figure reflexives, as shown in (132a). In (132b) it occurs with *-st*, where it is only possible with the non-literal sense of running.

- (132) a. Sigga hljóp á brott með Jóni (# til að giftast honum)  
 Sigga ran a way with John (# for to marry him)  
 ‘Sigga ran away with John (#in order to marry him).’  
 (physically running)
- b. Sigga hljópst á brott með Jóni (til að giftast honum)  
 Sigga ran a way with John (for to marry him)  
 ‘Sigga ran away with John (in order to marry him).’  
 (not necessarily physically running)

(Wood, 2015: 194)

Further confirming this, the present study found that (133a) was judged to be grammatical while (133b) was judged ungrammatical for most speakers<sup>98</sup>, as discussed in Chapter 3.2.4. No alternative readings were reported, but that does not negate the

<sup>97</sup> An alloseme is one semantic realization of a syntactic terminal node, from a set of possible semantic realizations.

<sup>98</sup> (133b) was considered marginally acceptable by some speakers.

possibility of idiomatic interpretations for (133b). This could be attributed to the idiomatic interpretation in (133b) not being available with the preposition *gegnum*.

- (133) a. Bjartur hljóp gegnum mannþröngina  
 Bjartur.NOM ran through crowd.the.ACC  
 ‘Bjartur ran through the crowd’.
- b. \*Bjartur hljópst gegnum mannþröngina  
 Bjartur.NOM ran-ST through crowd.the  
 ?\*‘Bjartur ran through the crowd.’  
 \*‘Bjartur ran away through the crowd.’

Under the expletive argument analysis, verb roots that do not involve inherently self-directed motion tend to form marked figure reflexives with  $p_{\{D\}}$  plus *-st*. Forming marked figure reflexives with  $p_{\{D\}}$  forces the verb root to be interpreted as having an inherently directed manner of motion, as in *squeeze (through the crowd)* or *break (into the house)* (p. 197). Wood (2015) observes that some *-st* reflexives have a complicated agentivity, as the event of moving is agentive, but the manner of motion is not always voluntary. This is the case in verbs like  $\sqrt{\text{TROÐ}}$  ‘squeeze’ as in (134a) in Icelandic and ‘stagger’ as in (134b) in English (Wood, 2015).

- (134) a. Bjartur tróðst gegnum mannþröngina  
 Bjartur.NOM squeezed-ST through crowd.the.ACC  
 ‘Bjartur squeezed through the crowd.’  
 \*‘Bjartur squeezed (something) while moving through the crowd.’

- b. Bjartur staggered into the kitchen to get a beer. (Wood, 2015: 197)

To summarize, the additional factors that influenced the variable interpretation of verb roots in the present study were the compatibility of verb roots with *-st*-marked and unmarked figure reflexives, differences in interpretation between *-st*-marked and unmarked figure reflexives, how the meaning of the verb root interacts with the

surrounding syntactic context, and using *-st* with roots that tend to occur in unmarked figure reflexives.

#### 4.1.2 Simultaneously expletive Voice and *p*

In this section, I discuss the theoretical possibility for both Voice and *p* to be thematically expletive at the same time. The position of the *-st* expletive argument in this context is not obvious as there are four theoretically possible options (Wood, 2015), which are presented in Table 23.

**Table 23. Options for simultaneously expletive Voice and *p***

Number of merges for <i>-st</i> DP	Voice alloseme	<i>-st</i> in Spec-VoiceP?	<i>p</i> alloseme	<i>-st</i> in Spec-pP?
0	Voice <sub>{}</sub>	N/A	<i>p</i> <sub>{}</sub>	N/A
1	Voice <sub>{}</sub>	N/A	<i>p</i> <sub>{D}</sub>	Yes
1	Voice <sub>{D}</sub>	Yes	<i>p</i> <sub>{}</sub>	N/A
2	Voice <sub>{D}</sub>	Yes	<i>p</i> <sub>{D}</sub>	Yes

Focussing on cases in which *-st* merges exactly once, one head would be expletive by virtue of *-st* merging in its specifier position, while the other head would be expletive by virtue of *i*\* not projecting a specifier at all. For the heads Voice and *p*, the allosemes that are inserted depend on the local syntactic context. In cases where *-st* merges once, two base positions are predicted to be available for *-st*, a high position as Spec-VoiceP and a low position as Spec-pP (Wood, 2015).

It is important to recall that valency reduction is characterized by which argument position the *-st* DP first merges into. Suppose that the verb root bearing expletive *-st* in an active clause has no thematic arguments, but rather an expletive, such as (135a). If the same verb root can occur in a thematic anticausative<sup>99</sup> sentence (135b) while maintaining the same root meaning, this suggests that *-st* is in Spec-VoiceP (Wood, 2015, p. 202).

<sup>99</sup> In order for (135b) to be anticausative, it would need to lack an impersonal passive counterpart.

- (135) a. Það      hellist      niður  
           EXPL spilled-ST   down  
           ‘There was a spill.
- b. Mjólkinn      hellist      niður  
               milk.the.NOM spilled-ST   down  
               ‘The milk spilled.’
- (Wood, 2015: 202)

The structure for a sentence such as (135a) is provided in (136).<sup>100,101</sup> Here, the  $i^*$   $v_{[S:D]}$  that corresponds to a traditional Voice head projects a specifier of the category D. However, the merging of *-st* in Spec-VoiceP forces the expletive alloeme of the Voice head. As a result, no AGENT role is introduced.<sup>102</sup> The  $i^*_{\{ \}}$  that corresponds to a traditional  $p$  head does not project a specifier of the category D, so it is structurally expletive. The lower  $pP$  is equivalent to a PP, but framed under the  $i^*$  hypothesis presented in Wood and Marantz (2017) and discussed in Chapter 2.3.5.

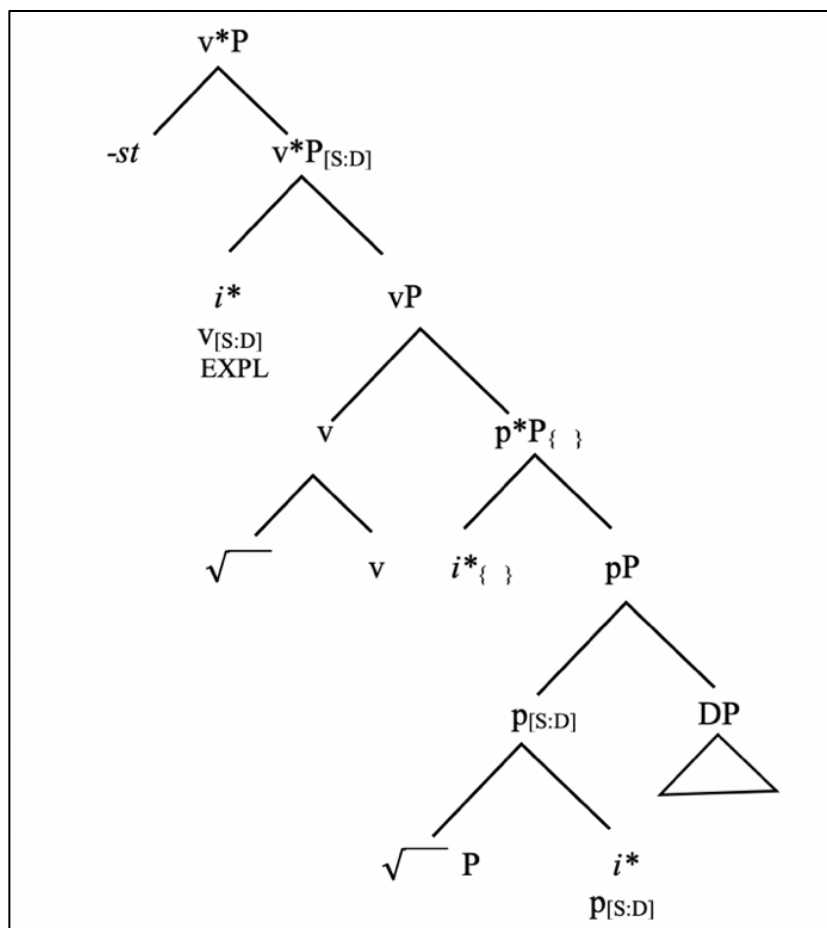
---

<sup>100</sup> The structures proposed in (136) and (138) are based on Wood (2015, p. 201), expanded to incorporate the arguments of Wood and Marantz (2017).

<sup>101</sup> Though (135a) does not have an object DP.

<sup>102</sup> Wood (2015, p. 201) notes that a parallel structure may underlie impersonal actives, in which both Voice and  $p$  do not project a specifier and no *-st* is present. The analysis of the structures in (136) and in (138) may be related to an analysis of impersonal passives of Class 2 and Class 3 figure reflexives and could provide a route to understanding the introduction and assignment of semantic roles in such cases.

(136) Tree diagram for expletive Voice and *p* with *-st* in Spec-VoiceP (based on Wood (2015) and Wood and Marantz (2017)).



Following the analyses of Wood (2015) and Wood and Marantz (2017), it is not clear if the FIGURE role would be introduced by *p* in sentences such as (135a) that have structures such as the one in (136). If the FIGURE role is introduced, it is not clear which argument would saturate it.

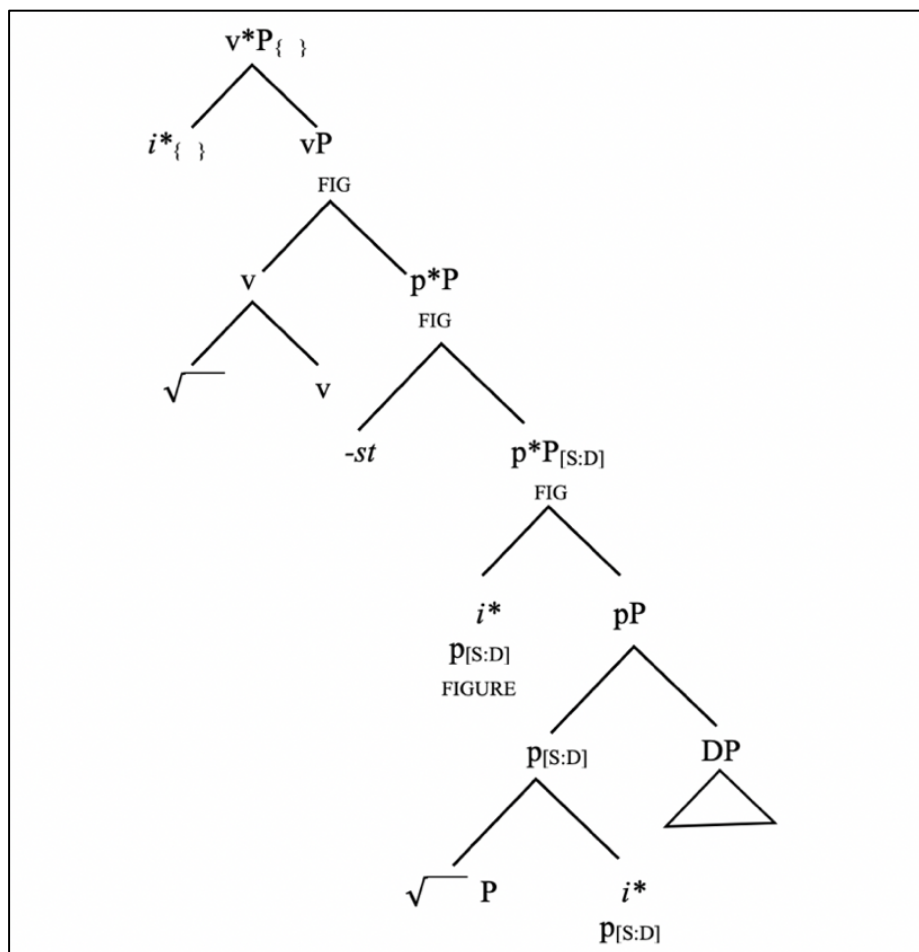
There is a second type of theoretically possible construction with expletive Voice and expletive *p*. In (137a), the thematic subject pronoun *hann* is overtly present. Under Wood's expletive argument analysis, this indicates that *-st* is merged in Spec-*p*P and not in Spec-VoiceP, or else the pronoun would be blocked from merging into the subject position. If the verb root bearing the *-st* can occur in a clause that has a thematic subject

(137a) and a clause that does not have a thematic subject (137b) without a change in verb meaning, this would predict that *-st* is in Spec-*p*P (Wood, 2015, p. 202). In this view, the sentence with a thematic subject *hann* as in (136a) would be expected to alternate with a sentence in which Voice does not project a specifier, resulting in an expletive interpretation of the subject, as in (136b).

- (137) a. Nú      hæðist      hann   að      mér  
           now    mocks-ST    he     at      me  
           ‘Now he mocks me’
- b. \*Nú      hæðist      að      mér  
           now    mocks-ST    at      me  
           INTENDED: ‘Now there’s mocking of me’                      (Wood, 2015: 203)

However, Icelandic speakers judge (137b) as ungrammatical. The hypothesized structure for a sentence such as (137b) is provided in (138). Here, the  $i^*_{\{\}}$  that corresponds to a traditional Voice head does not project a specifier. As a result, it is structurally expletive and no AGENT role is introduced. The  $i^*_{p_{[S:D]}}$  that corresponds to a traditional *p* head does project a specifier of the category D. However, the merging of *-st* in Spec-*p*P forces the expletive alloeme of the *p* head.

(138) Expletive Voice and *p* with *-st* in Spec-*p*P (based on Wood (2015); Wood and Marantz (2017)).



Wood (2015) leaves the reason for the ungrammaticality in (137b) and (138) open for investigation, suggesting that constructions such as these may be possible in other classes of *-st* reflexives.

Additional evidence that *-st* merges in Spec-*p*P instead of Spec-VoiceP comes from the fact that *-st* can be retained in active constructions formed from the root  $\sqrt{\text{HÆÐ}}$  ‘mock’ (Wood, 2015), as in (137a) and (139).

- (139) Hann er alltaf að hæðast að mér  
 he is always to mock-ST at me  
 ‘He is always mocking me.’

(Wood, 2015: 198)

Wood (2015, p. 198) argues that constructions such as (139) that contain the root  $\sqrt{\text{HÆÐ}}$  ‘mock’ and involve the merging of *-st* in the Spec-*p*P are not considered true figure reflexives, since they have expletive *p* and thus no FIGURE interpretation. However, they have the same internal syntactic structure. The claim that they have the same internal structure is based on the observation that *-st* remains in impersonal passives as in (140), where an agent is implied.

- (140) Oft var hæðst að mér fyrir sérviskuna  
 often was mocked-ST at me for peculiarity.the  
 ‘I was often mocked for my peculiarity.’

(Wood, 2015: 198)

It should be noted that *-st* is only necessary for the formation of figure reflexives when the variant of *p* that selects a DP, referred to as  $p_{\{D\}}$ , is present (Wood, 2015, p. 198). For verb roots that allow the variant of *p* that is structurally expletive<sup>103</sup>,  $p_{\{\}}$ , the *-st* is either optional or impossible. There appears to be a correlation between verb transitivity and use of *-st*. Transitive verbs require *-st* to form figure reflexives, while there is no such requirement for intransitive verbs (Wood, 2015, p. 198). This is shown in (141), where the verb root  $\sqrt{\text{HÆÐ}}$  ‘mock’ does not bear *-st*, resulting in an active transitive construction.

- (141) Blaðamenn hæddu þennan nýja flokk  
 journalists.NOM mocked this new political.party.ACC  
 ‘Journalists ridiculed this new political party.’

(Wood, 2015: 199)

Wood (2015, p. 198) argues that sentences such as (140) are not true figure reflexives, based on the presence of the implied agent and the “demotion of the internal argument” that results in the absence of a true FIGURE. However, Wood (2015, p. 198)

---

<sup>103</sup> As it lacks a D-feature.

notes that it is possible that the ‘mocking’ event itself is the FIGURE. Given that figure reflexives and sentences like (141) are syntactically identical and can both occur in impersonal passives, it may be the case that such constructions are true figure reflexives under an expletive-argument analysis (Wood, 2015).

Alternatively, it could be argued that the possibility of impersonal passives provides evidence that both  $\sqrt{\text{HÆÐ}}$  ‘mock’ constructions and figure reflexives are simply syntactically unergative, and there is no syntactic position associated with the FIGURE role and the AGENT/FIGURE interpretation (McGinnis & Moser, 2020). If the AGENT/FIGURE interpretation is present, it could be purely semantic and not introduced syntactically. Using impersonal passives as a diagnostic for unergativity is consistent with the observation that the ability to form impersonal passives qualifies some *-st* verbs as unergatives, including some verbs that do not take a PP complement such as *berjast* ‘fight’, *djöflast* ‘work (behave) like crazy’, and *klæmast* ‘use obscene language’. (Thráinsson, 2007).

#### 4.1.3 Thoughts on *-st* as a head vs. specifier

It is theoretically possible that *-st* is a head, rather than a specifier (Martha McGinnis, 2021, personal comm.). Wood (2015) argues against this possibility, noting that tense and agreement morphology intervene between the verb root and *-st* in (142b). This may pose a challenge for an approach that treats *-st* as a Voice head<sup>104</sup>, as the morphological realization of the head should be the closest to the root, with no intervening elements.

(142) a. Þær opnu-ðu dyrnar  
           they opened-3PL.PST door.the  
           ‘They opened the door.’

<sup>104</sup> The ordering may also pose a challenge for treating *-st* as a DP in spec-VoiceP or spec-pP, depending on assumptions made about movement.

- b. Dyrnar            opnu-ðu-st  
 door.the.NOM    opened-3PL.PST-ST  
 ‘The door opened.’

As we have seen, under an approach that treats *-st* as a specifier, there are two routes to anticausative formation (Wood, 2015). In a causative transitive,  $\text{Voice}_{\{D\}}$  has a DP specifier, and the AGENT role is assigned to that external argument. One route to forming anticausatives involves  $\text{Voice}_{\{D\}}$  with *-st* as a specifier instead of a DP. As *-st* is expletive and cannot bear a theta role, no AGENT role is assigned. The other route involves the expletive alloform of Voice,  $\text{Voice}_{\{\}} \}$ . As  $\text{Voice}_{\{\}} \}$  does not project a specifier, no AGENT role is assigned.

The routes to forming figure reflexives in an approach that treats *-st* as a specifier are parallel to the routes for forming anticausatives. The head  $p_{\{D\}}$  can have a DP specifier, in which case the FIGURE role is assigned to that DP. In order to form a figure reflexive with the head  $p_{\{D\}}$ , *-st* occupies the specifier of  $p_{\{D\}}$ . As *-st* cannot bear the FIGURE role, the FIGURE role combines with the AGENT role. The resulting AGENT/FIGURE role is assigned to the external argument. In the other route, the expletive  $p_{\{\}} \}$  does not project a specifier, resulting in an unmarked figure reflexive. In this case, there is a question of how and whether the FIGURE role is assigned. If it is assigned and there is an eligible DP higher in the clause, it could combine with the AGENT role. Alternatively, the FIGURE role is not necessarily assigned syntactically. There is an argument that the verb roots that can occur in unmarked figure reflexives are ‘inherently self-directed’ (Wood, 2015), which would allow the figure reflexive reading on the basis of semantic relations when the FIGURE role is not introduced syntactically.

An alternative approach would be to treat *-st* as a head, or as a variant of *i\**. An empirical motivation for this approach is that the tendency for reflexive clitics to interact with external arguments would make sense if *-st* is a realization of Voice (Martha McGinnis, 2021, personal communication). As above, in order to form a causative transitive, the head  $\text{Voice}_{\{D\}}$  projects a DP specifier and the AGENT role is assigned to that external argument. Here, however, in the first route to forming anticausatives, a semantically expletive Voice head with the morphological form *-st* occurs, which I will represent as  $\text{Voice}_{-st\{\}}$ . It does not project a specifier, so no AGENT role is introduced. In order to form unmarked anticausatives, the head  $\text{Voice}_{\{\}}$  occurs. Again, as it does not project a specifier, no agent role is assigned.

The routes to forming figure reflexives would be parallel here as well. The head  $p_{\{D\}}$  has a DP specifier, and assigns the FIGURE role to that DP. In order to form *-st* figure reflexives, one theoretical possibility is for the head  $p_{\{\}}$  to have *-st* as its morphological form<sup>105</sup>. As it does not project a specifier, and *-st* is an expression of a subtype of *p*-head, no FIGURE role is assigned. In order to form unmarked figure reflexives, the head  $p_{\{\}}$  occurs. As it does not project a specifier, no FIGURE role would be assigned. In this case, the semantic intuition that a FIGURE role is present would need to be accounted for (Martha McGinnis, 2021, personal communication).

Testing the obligatoriness of the *pP* would not reveal much about whether *-st* is a head or a specifier. This is because the *pP* is expected to be obligatory in both types of analysis, if *-st* is realizing *p*. If *-st* is a realization of Voice, an obligatory *pP* would not be predicted (McGinnis & Moser, 2020; Martha McGinnis, 2021, personal communication).

---

<sup>105</sup> *-st* could also be a realization of unergative Voice, or *p + -st* could have a FIGURE role that combines with the AGENT when there is no spec-*pP* (Martha McGinnis, 2021, personal communication).

As it is possible for sentences that contain Class 1A, Class 1B, and Class 3 *-st* verbs of motion to have a figure reflexive interpretation without a *pP*, it would be a challenge for each approach to determine where the *-st* merges and where the FIGURE role comes from in the examples without a *pP*, if it is present. It is worth noting that these are not verb roots that have inherently self-directed motion (like Class 1C), so that would not be the source of the figure reflexive interpretation.

If no FIGURE role is assigned in *-st*-marked ‘figure reflexives’, then the *pP* would not be necessary to assign this role. As it is possible to get a figure reflexive interpretation without a *pP* for several of the verb roots under investigation, there may be support for this approach. While this could account for the FIGURE role in the case of a missing *pP*, there is still a question of where the *-st* head would merge if not in the *pP*. If it is not a realization of a *p* head, it may be worth investigating whether it could be a Voice head in figure reflexives as well as in anticausatives. If this is the case, then one would have to account for the differences between *-st* anticausatives and *-st* figure reflexives without a *pP*. If *-st* were to merge as a Voice head in ‘figure reflexives’ without a *pP*, there is a question of whether the AGENT or the FIGURE role is omitted and how the decision would be made<sup>106</sup>. This could be connected to the observation that unmarked figure reflexives tend to be inherently directed, such as *walk* and *run* (Wood, 2015), which is also discussed in Chapter 3.2.4.

---

<sup>106</sup> Though an underspecification analysis doesn’t need to be associated with the lack of a non-expletive projected specifier (McGinnis & Moser, 2020; Martha McGinnis, 2021, personal communication).

## 4.2 Future Directions

This section introduces a few possible directions for future research. These include an extension of the present work and a comparison of the derivation of anticausatives in Icelandic and Kannada.

### 4.2.1 Extending the present study

In order to determine whether the present study could accurately account for other *-st* verbs of motion in Icelandic, one possible direction for future work involves extending the methodology presented in Chapter 1.5 to include more *-st* verbs of motion. It would be beneficial to determine whether they could be categorized in the same way as the verbs that were investigated, or whether other categories are required.

Another direction for future work could involve an investigation of the variation between speakers, and whether factors like location and age influence how *-st* verbs are categorized. In the present thesis, there was variation between speakers in the acceptability judgements for sentences such as (143b-d). In (143b), the % symbol is used to indicate substantial variation. In (143c), the # symbol is used as most speakers indicated that it was a bit unusual, though two speakers found it perfectly acceptable, and one found it marginally acceptable.

- (143) a. Bjartur            dröslaðist        gegnum            mannþröngina  
           Bjartur.NOM    dragged-ST        through            crowd.the.ACC  
           ‘Bjartur dragged through the crowd (moving himself).’  
           \*‘Bjartur dragged (something) through the crowd.’
- b. %Bjartur            dröslaðist  
           Bjartur.NOM    dragged-ST  
           ?\*‘Bjartur dragged (moving himself).’  
           \*‘Bjartur dragged (something).’

- c. #Þá var dröslast gegnum mannþröngina  
 then was dragged-ST through crowd.the.ACC  
 ?\*‘Then there was dragging (of oneself) through the crowd.’  
 \*‘Then there was dragging (of something) through the crowd.’
- d. %Þá var dröslast  
 then was dragged-ST  
 ?\*‘Then there was dragging (of oneself).’  
 \*‘Then there was dragging (of something).’

The values in (144) represent the acceptability ratings for each of the sentences in (143). The values in each row are in the same order based on the participant that provided them, so the ‘columns’ in (144) each correspond to one participant.

(144) a.	4,	5,	4,	5,	4,	5	Average: 4.5
b.	1,	5,	5,	5,	1,	4	Average: 3.5
c.	3,	3,	3,	5,	2,	5	Average: 3.5
d.	1,	3,	3,	3,	1,	4	Average: 2.5

A larger participant pool would be beneficial for observing and accounting for the variation. Additional contexts could be considered for many of the verbs, as well. These could include the contexts that enforce other interpretations such as (145). A participant noted that they would consider (145) to only be grammatical with a syntactically expressed direct object, unless it was for the intransitive interpretation ‘to dunk (a basketball)’. While survey in the present study left room for participants to add possible interpretations, it would be optimal to include such interpretations in future work. In (145), # indicates that some speakers found this example to be marginally acceptable and some found it to be technically acceptable but odd.

- (145) #Bjartur tróð gegnum mannþröngina  
 Bjartur.NOM squeezed through crowd.the.ACC  
 \*‘Bjartur squeezed through the crowd.’  
 #‘Bjartur squeezed (something) while moving through the crowd.’  
 ‘Bjartur dunked (basketballs) through the crowd.’

Additionally, it would be worthwhile to incorporate discourse contexts where ellipsis can occur. One participant noted that (146a) was only possible in an ellipsis context that would correspond to the English sentence in (146b).

- (146) a. Bjartur læddist  
 Bjartur.NOM prowled-ST  
 ‘Bjartur prowled (moving himself).’  
 \*‘Bjartur prowled (in place).’  
 \*‘Bjartur prowled (moving something).’
- b. ‘Halldóra and Jón walked into the room as if nothing had happened.  
 Bjartur tiptoed [in].’

As (146a) was rated as quite acceptable by most participants, it would be important to gather comparative judgements on ellipsis contexts and neutral discourse contexts to determine whether sentences like (146a) are considered acceptable on their own or only when the direction is implied in a preceding sentence. There may be variation between speakers and across verbs here, as it was also noted that (147) is most natural in ellipsis contexts but also possible in neutral discourse contexts.

- (147) \*Bjartur tróðst  
 Bjartur.NOM squeezed-ST  
 ‘Bjartur squeezed (himself).’  
 \*‘Bjartur squeezed (something).’

Another direction for future research involves English *way*-constructions (Jackendoff, 1992; Marantz, 1992; McGinnis & Moser, 2020), which have an equivalent in the Icelandic *leið*-construction (Wood, 2015, p. 193). In the *leið*-construction, a dative simplex reflexive is used to mark the possessor, as seen in (148).

- (148) Risarotta nagaði sér leið inn á heimili í Stokkhólmi  
 giant.rat gnawed REFL.DAT way.ACC in to home in Stockholm  
 ‘A giant rat gnawed its way into a home in Stockholm.’

(Wood, 2015: 193)

Wood (2015) calls for an investigation of the relationship between *leið*-constructions and other constructions that encode path. Related to this, a participant in the present study noted that (149a) would be preferred over both the generally accepted *-st*-marked figure reflexive (149b) and the generally unaccepted unmarked figure reflexive in (149c).

- (149) a. Bjartur       braut sér       leið       gegnum       mannþröngina  
 Bjartur.NOM   broke REFL.DAT way.ACC   through       crowd.the  
 ‘Bjartur broke his way through the crowd.’
- b. Bjartur       braust       gegnum       mannþröngina  
 Bjartur.NOM   broke-ST   through       crowd.the.ACC  
 ‘Bjartur broke through the crowd.’  
 \*‘Bjartur broke (something) while moving through the crowd.’
- c. \*Bjartur       braut gegnum       mannþröngina  
 Bjartur.NOM   broke through       crowd.the.ACC  
 \*‘Bjartur broke through the crowd.’  
 ?\*‘Bjartur broke (something) while moving through the crowd.’

Future work could incorporate sentences like (149a) alongside the sentence types investigated in the present survey to see how their acceptability compares for other verb roots, and for other speakers.

#### 4.2.2 Derivation of anticausatives in Icelandic and Kannada

As Wood (2015) can be described as a unification<sup>107</sup> analysis of *-st* figure reflexives and anticausatives, a unification analysis of reflexives and anticausatives<sup>108</sup> in Kannada provided by Kim (2006a) is discussed as a point of comparison in future work. Parallel to Icelandic *sig* and *-st*, reflexivity in Kannada is expressed with a reflexive pronoun *taan-*

<sup>107</sup> Through the *i\** hypothesis, Wood (2015) and Wood and Marantz (2017) unify the analysis of *-st* figure reflexives with *-st* unaccusatives. In both cases, *-st* is an expletive argument that merges in a potential theta position but does not receive a theta role. Thanks to Martha McGinnis for discussing Wood’s analysis in terms of unification.

<sup>108</sup> Kim (2006a, 2006b) refers to inchoatives, rather than anticausatives.

‘self’ or through a verbal reflexive morpheme *-koLL* (Kim, 2006a). This verbal reflexive morpheme also appears in anticausatives. As in Icelandic, anticausatives in Kannada can be zero-marked as in (150a) or reflexive-marked as in (150b) (Kim, 2006a, 2006b).

- (150) a. baagil-u        tere-d-itu  
           door-NOM      open-PAST-3SN  
           ‘The door opened.’
- b. baagil-u        tere-du-koND-itu  
           door-NOM      open-POSTP-VR.PAST-3SN  
           ‘The door opened.’

(Kim, 2006a: 58)

Kim (2006a, 2006b) analyses the verbal reflexive morpheme as unspecified for semantic and syntactic features of reflexives and inchoatives, allowing it to appear in both reflexive and anticausative contexts. Following Pylkkänen (2008), Kim’s (2006a, 2006b) analysis relies on a separation of Voice and  $v_{\text{CAUSE}}$ , where  $v_{\text{CAUSE}}$  forms a constituent with a root, introduces a causative meaning, and assigns a theta-role to external argument via Voice.

A  $v$  can be interpreted as  $v_{\text{CAUSE}}$  if the root allows a causative meaning (Kim, 2006b). This seems potentially compatible with Wood (2015), especially given the  $i^*$  analysis of Wood and Marantz (2017) where the alloeme of  $i^*$  that introduces the AGENT role only merges with verb roots that denote an event that allows an agent. Kim (2006a, 2006b) analyses the verbal reflexive morpheme as a morphological realization of  $v_{\text{CAUSE}}$ . Kim (2006a) follows Pylkkänen’s (2002) analysis of Japanese unaccusative adversity causatives<sup>109</sup>, arguing that Kannada anticausatives that contain the verbal reflexive morpheme are unaccusative causatives. Evidence is provided for this through demonstrating that anticausatives containing the verbal reflexive morpheme have a

---

<sup>109</sup> As cited in Kim (2006a). Note that Pylkkänen’s (2002) dissertation is published as Pylkkänen (2008).

causative interpretation as they can occur with a causal adjunct (151a), in contrast with (151b). Anticausatives containing the verbal reflexive morpheme cannot be passivized (Kim, 2006a, p. 59).

(151) a. gaal-ige      baagil-u      tere-du-koND-itu  
 wind-DAT      door-NOM      open-POSTP-TVR.PAST-3SN  
 ‘Because of the wind, the door opened.’

b. \*gaal-ige      baagil-u      terey-i-tu  
 wind-DAT      door-NOM      open-PAST-3SN  
 ‘Because of the wind, the door opened.’

(Kim, 2006a: 58)

At this preliminary stage of evaluation, it seems that Voice{D} + *-st* in Wood (2015) is not parallel to  $v_{\text{CAUSE}} + \text{-koLL}$  in Kim (2006a, 2006b) for the purpose of deriving anticausatives, even though Icelandic alternates between *-st* and unaccusatives without *-st*. Thrainsson (2007) notes that there is no causative meaning or possible adjunct in the case of *-st* anticausatives<sup>110</sup>. Future work could involve exploring the extent of the empirical compatibility between these two unification analyses.

### 4.3 Concluding Remarks

As a set of concluding remarks, this section summarizes the main points of the present thesis. This thesis presents evidence for an underspecification analysis of the argument structure of ‘figure reflexive’ constructions that contain *-st* verbs of motion in Icelandic, as in (152). In (152), *Bjartur* is both the entity that is the AGENT of the *squeezing* and the FIGURE, the entity that gets *squeezed through the crowd*.

(152) Bjartur      tróðst      gegnum      mannþröngina  
 Bjartur.NOM      squeezed-ST      through      crowd.the  
 ‘Bjartur squeezed through the crowd.’

(Wood & Marantz, 2017: 12)

<sup>110</sup> Thank you to Martha McGinnis (2021, personal communication) for noting this.

Chapter 1 of this thesis began with a discussion of the theoretical framework used and assumptions made. This chapter continued with a description of three analyses of *-st* clauses in Icelandic, which are referred to as the expletive argument analysis, the derived-subject analysis, and the unergative analysis. After this, the present underspecification analysis of Icelandic *-st* was introduced. The last section of Chapter 1 described the methodology used to gather new evidence for the present analysis.

Chapter 2 provides a review of the background literature, including a review of key concepts such as *expletives*, *verbs of motion*, and *prepositional phrases*. This is followed by a brief description of the Icelandic language, with emphasis on features and phenomena that are relevant to the present analysis, including *middles*, *passives* (and *impersonal passives*), *reflexives*, *unaccusatives* (and *anticausatives*), and *unergatives*. A significant portion of Chapter 2 summarized the mechanics of Wood's (2015) expletive argument analysis of the argument structure of *-st* anticausatives and figure reflexives, further defined in Wood and Marantz (2017).

The evidence for heterogeneity in the argument structure of figure reflexives is presented in Chapter 3. As shown in Table 24, the present analysis divides a set of *-st* verbs of motion into three classes based on the analysis that best accounts for their structure. The analyses that account for each of these classes are an expletive argument analysis (Section 1.3.1), an unergative analysis (Section 1.3.2), and a derived-subject analysis (Section 1.3.3.) Evidence for these analyses is presented in Chapter 3. I argue for an unergative analysis of Class 1 verbs, as they do not require PPs and can occur in impersonal passives. An expletive argument analysis best accounts for clauses containing Class 2 verb roots, as they require a PP for most speakers and can occur in impersonal

passives. A derived-subject analysis best accounts for clauses containing Class 3 verb roots, as they do not require a PP and do not allow impersonal passives for most speakers. As shown in the bottom row of Table 24, the set of Class 1 verb roots is then divided based on whether they can occur in *-st*-marked figure reflexives, unmarked figure reflexives, or both. This was also examined for Class 2 and Class 3 verbs, though further subdivision was not required.

**Table 24. Implications of the results for verbs with *-st***

Class	1	2	3
<i>Analysis</i>	Unergative	Expletive argument	Derived-subject
<i>Figure Reflexive with pP</i>	✓	✓	✓
<i>Fig. Refl. without pP</i>	✓	*	✓
<i>Impersonal Passive with pP</i>	✓	✓	*
<i>Imp. Pass. without pP</i>	✓	*	*
<i>Allows -st-marked or unmarked figure reflexives?</i>	A: <i>-st</i> -marked and unmarked B: Only <i>-st</i> -marked C: Only unmarked	Only <i>-st</i> -marked	Only <i>-st</i> -marked
<i>Verb Roots</i>	A: <i>troðast</i> ‘squeeze’, <i>böðlast</i> ‘struggle’, <i>dröslast</i> ‘drag’ B: <i>þvælast</i> ‘wander’, <i>læðast</i> ‘prowl/sneak’, <i>skrönglast</i> ‘move reluctantly’ C: <i>hlaupast</i> ‘run/run away’, <i>skreiðast</i> ‘crawl’	<i>brjótast</i> ‘break (into/out of)’, <i>dröslast</i> ‘drag’, <i>staulast</i> ‘totter (along)’	<i>laumast</i> ‘sneak’, <i>ryðjast</i> ‘shove’, <i>ryðjast</i> ‘barge’, <i>klöngrast</i> ‘clamber’

This subdivision of categories suggests that there is underspecification of *-st* morphology between unergatives (Classes 1A, 1B, and 1C), figure reflexives with *-st* as an expletive argument (Class 2), and unaccusatives (including anticausatives and Class 3 figure reflexives). A potential underspecification analysis is presented in Table 25.

**Table 25. Positions for -st and the distribution of head allosemes**

Structure	Voice head	<i>p</i> head	Position of -st	Subject DP
<i>Unergative</i>	Voice <sub>{D}</sub> -ST	optional <i>p</i> <sub>{}</sub>	Voice head	External argument, AGENT role
<i>Expletive argument</i>	Voice <sub>{D}</sub>	obligatory <i>p</i> <sub>{D}</sub>	Spec- <i>p</i> P	External argument, AGENT/FIGURE role
<i>Derived-subject</i>	Voice <sub>{D}</sub>	optional <i>p</i> <sub>{D}</sub>	Spec-VoiceP	Raised internal argument

When Class 2 roots occur in expletive-argument figure reflexives, the figure reflexive interpretation results when -st merges in the specifier position of an obligatory *p*P and the FIGURE role and the AGENT role subsequently combine, as described in Section 1.3.1 and expanded on in Chapter 2.3. For all verb roots except for Class 2 roots, it seems that the semantics of the root implies that the AGENT is also the FIGURE in discourse contexts of motion and not exclusively in the syntactic context of combination with a *p*P complement (McGinnis & Moser, 2020). As this implication that the AGENT is also the FIGURE results in a ‘self-directed’ reading, it may not be necessary for the FIGURE to be introduced in the syntax. The main contribution of this thesis is that it builds on the analysis of Icelandic -st figure reflexives presented by Wood (2015) by arguing that Icelandic figure reflexives are a syntactically heterogeneous set. Icelandic figure reflexives can be accounted for by a three-part analysis that includes an unergative analysis, a derived-subject analysis, and Wood’s (2015) expletive-argument analysis.

## References

- Alboiu, G., Barrie, M., & Frigeni, C. (2004). SE and the unaccusative-unergative paradox. In M. Coene, G. de Cuyper, and Y. D'Hulst (Eds.), *Antwerp Papers in Linguistics, 107*, 109-139. Universiteit Antwerp. [pre-publication draft]
- Alsina, A. (1996). The Role of Argument Structure in Grammar. Evidence from Romance. *CSLI Lecture Notes, 62*. Stanford, CA: CSLI Publications.
- Anderson, S. (1990). The grammar of Icelandic verbs in *-st*. In J. Maling and A. Zaenen (Eds.), *Modern Icelandic syntax* (Vol. 24 of *Syntax and Semantics*) (pp. 235-273). New York: Academic Press.
- Andrews, A. (1982). The representation of case in Modern Icelandic. In J. Bresnan (Ed.) *The mental representation of grammatical relations* (pp. 427-503). Cambridge, MA: MIT Press.
- Andrews, A. (1990). Case structures and control in Modern Icelandic. In J. Maling and A. Zaenen (Eds.), *Modern Icelandic syntax* (Vol. 24 of *Syntax and Semantics*) (pp. 427-503). New York: Academic Press.
- Beygingarlýsing Íslensks Nútímamáls*. [The database of Icelandic morphology.] (n.d.) Kristín Bjarnadóttir (Ed.). The Árni Magnússon Institute for Icelandic Studies. Accessed 18.09.2019 from [bin.arnastofnun.is](http://bin.arnastofnun.is).
- Biggs, A. (2019). Objects in motion verb phrases. *Glossa, 4*(1):98, 1–31.
- Britannica, Eds. (2016). Icelandic language. In *Encyclopedia Britannica*. <https://www.britannica.com/topic/Icelandic-language>
- Chierchia, G. (1989). *A semantics for unaccusatives and its syntactic consequences*. Unpublished manuscript. Ithaca, New York, Cornell University.
- Chierchia, G. (2004). *A semantics for unaccusatives and its syntactic consequences*. In A. Alexiadou, E. Anagnostopoulou, & M. Everaert (Eds.), *The unaccusativity puzzle* (pp. 22-59). Oxford: Oxford University Press.
- Chomsky, N. (1995). *The Minimalist program*. Malden, MA: MIT Press.
- Chomsky, N. (2001). Derivation by phase. In M. Kenstowicz (Ed.), *Ken Hale: a life in language* (pp. 1– 52). Cambridge, MA: MIT Press.
- Chomsky, N. (2002). An interview on minimalism. In N. Chomsky (Ed.), *On nature and language* (pp. 92–161). New York, NY: Cambridge University Press

- Chomsky, N. (2007). Approaching UG from below. In U. Sauerland & H.M. Gärtner (Eds.), *Interfaces + recursion = language? Chomsky's Minimalism and the view from syntax-semantics*, (pp. 1–29). New York: Mouton de Gruyter.
- Grigoroglou, M., & Papafragou, A. (2019). Spatial terms. In C. Cummins & N. Katsos (Eds.), *The Oxford handbook of experimental semantics and pragmatics* (pp. 113–123). Oxford: Oxford University Press.
- Grimshaw, J. (1982). On the lexical representation of Romance reflexive clitics. In J. Bresnan (Ed.) *The mental representation of grammatical relations* (pp. 87-148). Cambridge, MA: MIT Press.
- Halle, M., & Marantz, A. (1993). Distributed Morphology and the pieces of inflection. In K. Hale & S. Keyser (Eds.), *The View from Building: Essays in Linguistics in Honor of Sylvain Bromberger* (pp. 111-176). Cambridge, MA: MIT Press.
- Halle, M., & Marantz, A. (1994). Some key features of Distributed Morphology. In A. Carnie & H. Harley (Eds.), *MIT Working Papers in Linguistics* 21, 275–288.
- Harley, H. (2011). A Minimalist approach to argument structure. In C. Boeckx (Ed.), *The Oxford handbook of linguistic minimalism*, (pp. 426 – 447). Oxford: Oxford University Press.
- Heim, I., & Kratzer, A. (1998). *Semantics in generative grammar*. Malden, MA: Blackwell.
- Jackendoff, R. (1992). Babe Ruth homered his way into the hearts of America. In E. Wehrli & T. Stowell (Eds.), *Syntax and the lexicon* (pp. 155–178). New York: Academic Press.
- Kayne, R. (1988). Romance *Se/Si*. *GLOW Newsletter*, 20.
- Kim, K. (2006a). *The morphosyntax of reflexives: A case study of Kannada* [M.A. thesis]. University of Calgary. Retrieved from <https://www.collectionscanada.gc.ca/obj/thesescanada/vol2/002/MR19244.PDF>
- Kim, K. (2006b). Verbal morphemes in the same syntactic context with different morphosyntactic features. In C. Burski & M. Radišić (Eds.), *2006 Annual Conference of the Canadian Linguistic Association Proceedings* (pp. 1-11). Retrieved from <https://cla-acl.artsci.utoronto.ca/actes-2006-proceedings/>
- Kim, K. (2011). *External argument introducers*. [Doctoral dissertation]. University of Toronto. Retrieved from <https://tspace.library.utoronto.ca/handle/1807/31805>

- Kratzer, A. (1996). Severing the external argument from its verb. In J. Rooryck & L. Zaring (Eds.), *Phrase structure and the lexicon*, Vol. 33 (pp. 109–137). Dordrecht: Kluwer.
- Labelle, M. (2008). The French reflexive and reciprocal *se*. *Natural Language & Linguistic Theory*, 26, 833–876.
- Lonely Planet (2020). [Map of Iceland]. Retrieved from <https://www.lonelyplanet.com/maps/europe/iceland/>, June 20, 2021.
- Lyngfelt, B., & Solstad, T. (Eds.). (2006). *Demoting the agent: passive, middle, and other voice phenomena*. Amsterdam/Philadelphia: John Benjamins.
- Maling, J. (2006). From passive to active: syntactic change in progress in Icelandic. In B. Lyngfelt & T. Solstad (Eds.). (2006). *Demoting the agent: Passive, middle, and other voice phenomena*. Amsterdam/Philadelphia: John Benjamins.
- Maling, J., & Sigurjónsdóttir, S. (2002). The new impersonal construction in Icelandic. *The Journal of Comparative Germanic Linguistics*, 5, 97–142.
- Marantz, A. (1984). *On the nature of grammatical relations*. Cambridge, MA: MIT.
- Marantz, A. (1992). The *way*-construction and the semantics of direct arguments in English: A reply to Jackendoff. In E. Wehrli & T. Stowell (Eds.) *Syntax and the lexicon*, (pp. 179–188). New York: Academic Press.
- McGinnis, M. (1998). *Locality in A-movement*. [Doctoral dissertation]. Massachusetts Institute of Technology. Retrieved from <http://www.ai.mit.edu/projects/dm/theses/mcginnis98.pdf>
- McGinnis, M. (2000). Reflexive clitics and the specifiers of vP. *MIT Working Papers in Linguistics*, 35, 137–160.
- McGinnis, M., & Moser, C. (2020, June). *Cross-linguistic evidence for underspecification in reflexive morphosyntax* [Paper presentation]. Annual Meeting of the Canadian Linguistic Association. Western University, London, Ontario.
- Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. *Berkeley Linguistics Society*, 4, 157–189.
- Pesetsky, D. M. (1995). *Zero syntax: experiencer and cascades*. Cambridge, MA: MIT Press.
- Pylkkänen, L. (2008). *Introducing arguments*. Cambridge, MA: MIT Press.

- Reinhart, T. (1997). Syntactic effects of lexical operations: reflexives and unaccusatives. *UiL OTS Working Papers in Linguistics*, 2. Utrecht Institute of Linguistics.
- Reinhart, T., & Reuland, E. (1993). Reflexivity. *Linguistic Inquiry*, 24(4), 657-720. doi: 10.1007/s10828-013-9052-4
- Reinhart, T., & Siloni, T. (2004). Against the unaccusative analysis of reflexives. In A. Alexiadou, E. Anagnostopoulou, & M. Everaert (Eds.), *The unaccusativity puzzle* (pp. 159-180). Oxford: Oxford University Press.
- Schäfer, F. (2008). *The syntax of (anti-)causatives*. Philadelphia: John Benjamins.
- Schäfer, F. (2012). The passive of reflexive verbs and its implications for theories of binding and case. *Journal of Comparative Germanic Linguistics*, 15, 213-268.
- Sigurðsson, H.Á. (1989). *Verbal syntax and case in Icelandic*. Doctoral Dissertation, University of Lund.
- Sigurðsson, H.Á. (2009). The no case generalization. In A. Alexiadou, J. Hankamer, T. McFadden, J. Nuger, & F. Schäfer (Eds.), *Advances in comparative Germanic syntax* (pp. 249–279). Philadelphia: John Benjamins.
- Sigurðsson, H.Á. (2011). On the New Passive. *Syntax*, 14(2), 148-178.
- Sigurðsson, H.Á. (2012). Minimalist C/case. *Linguistic Inquiry*, 43, 191–227.
- Siloni, T. (2008). The syntax of reciprocal verbs: an overview. In E. König & V. Gast (Eds.), *Reciprocals and reflexives: Cross-linguistic and theoretical explorations*. Berlin: Mouton de Gruyter.
- Sportiche, D. (1990). Movement, agreement, and case. In D. Sportiche (Ed.), *Atoms and particles of phrase structure* (1998), (pp. 83-236). London: Routledge.
- Svenonius, P. (2002). Introduction. In P. Svenonius (Ed.), *Subjects, expletives, and the EPP* (pp. 3-27). Oxford: Oxford University Press.
- Svenonius, P. (2003). Limits on P: filling in holes vs. falling in holes. *Nordlyd*, 31, 431–445.
- Svenonius, P. (2008). Projections of P. In A. Asbury, J. Dotlačil, B. Gehrke, & R. Nouwen (Eds.), *Syntax and semantics of spatial P* (pp. 63–84). Philadelphia: John Benjamins.
- Talmy, L. (1975). Figure and ground in complex sentences. *Proceedings of the First Annual Meeting of the Berkeley Linguistics Society*, 419-430.

- Thráinsson, H. (2007). *The Syntax of Icelandic*. New York: Cambridge University Press.
- Wechsler, S. (2015). *Word meaning and syntax: approaches to the interface*. Oxford: Oxford University Press.
- Wood, J. (2012). *Icelandic morphosyntax and argument structure* (doctoral dissertation). New York University, New York.
- Wood, J. (2014). Reflexive *-st* verbs in Icelandic. *Natural Language and Linguistic Theory*, 32, 1387–1425.
- Wood, J. (2015). *Icelandic morphosyntax and argument structure*. Dordrecht: Springer.
- Wood, J. & Marantz, A. (2017). The interpretation of external arguments. In R. D'Alessandro, I. Franco, & A. J. Gallego (Eds.), *The verbal domain*, (pp. 255 - 278). Oxford: Oxford University Press.
- Zaenen, A. & Maling, J. (1990). Unaccusative, passive and quirky case. In Maling, J. & Zaenen, A. (Eds), *Modern Icelandic syntax, Syntax and Semantics*, 24, (pp. 137–152). New York: Academic Press.

## APPENDIX 1: List of -st Verbs of Motion

This list of verbs of motion is based on the list that is presented as a set of *-st* verbs that “may occur in figure reflexives” (Wood, 2014, p.13).

*brjótast* ‘break (into/out of)’

*böðlast* ‘struggle’

*dröslast* ‘drag’

*flytjast* ‘move’

*hlaupast* ‘run away’

*klöngrast* ‘clamber’

*laumast* ‘sneak’

*læðast* ‘prowl/sneak’

*ryðjast* ‘barge/shove’

*skreiðast* ‘crawl’

*skrönglast* ‘move reluctantly’

*staulast* ‘totter (along)’

*troðast* ‘squeeze’

*þvælast* ‘wander’

## APPENDIX 2: Survey Question Format

### Icelandic Language Survey Version 4

#### 1. Welcome to My Survey

Thank you for your participation in this survey!

The survey is 14 pages long, with one page per verb. For each verb, there are 8 italicised sentences, which are each followed by 2 questions. There are 16 questions per page.

Many questions will ask you to rate the acceptability of a sentence on a scale of 1-5, where 1 is unacceptable and 5 is completely acceptable:

1 = completely unacceptable

2 = unacceptable (but I would know what someone meant without needing clarification)

3 = acceptable in specific contexts, but seems odd

4 = acceptable (but I am more likely to express this in a different way)

5 = completely acceptable

If you have any questions or comments about the survey, please contact me at [cimoser@uvic.ca](mailto:cimoser@uvic.ca).

#### 2. *troðast*

1. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

***Bjartur tróðst gegnum mannþröngina.***

1    2    3    4    5

2. Please select the possible meaning(s) of the sentence.

Bjartur squeezed through the crowd.

Bjartur squeezed (something) while moving through the crowd.

No possible meaning

Other (please specify)

3. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

***Bjartur tróðst.***

1    2    3    4    5

4. Please select the possible meaning(s) of the sentence.

Bjartur squeezed (something).

Bjartur squeezed (himself).

No possible meaning

Other (please specify)

---



---

5. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

***Þá var troðist gegnum mannþröngina.***

1    2    3    4    5

6. Please select the possible meaning(s) of the sentence.

Then there was squeezing (of oneself) through the crowd.

Then there was squeezing (of something) through the crowd.

No possible meaning

Other (please specify)

---



---

7. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

***Þá var troðist.***

1    2    3    4    5

8. Please select the possible meaning(s) of the sentence.

Then there was squeezing (of oneself).

Then there was squeezing (of something).

No possible meaning

Other (please specify)

---



---

9. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

**Bjartur tróð gegnum mannþröngina.**

1    2    3    4    5

10. Please select the possible meaning(s) of the sentence.

Bjartur squeezed through the crowd.

Bjartur squeezed (something) while moving through the crowd.

No possible meaning

Other (please specify)

---

11. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

**Bjartur tróð.**

1    2    3    4    5

12. Please select the possible meaning(s) of the sentence.

Bjartur squeezed (something).

Bjartur squeezed (himself).

No possible meaning

Other (please specify)

---

13. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

**Þá var tróðið gegnum mannþröngina.**

1    2    3    4    5

14. Please select the possible meaning(s) of the sentence.

- Then there was squeezing (of oneself) through the crowd.
- Then there was squeezing (of something) through the crowd.
- No possible meaning
- Other (please specify)

15. How would you rate the acceptability of the following sentence?

(1: Unacceptable, 5: Acceptable)

***pá var troðið.***

- 1    2    3    4    5

16. Please select the possible meaning(s) of the sentence.

- Then there was squeezing (of oneself).
- Then there was squeezing (of something).
- No possible meaning
- Other (please specify)

### APPENDIX 3: Sample Follow-Up Interview Questions

- 1) Did you have any comments, questions or concerns about the survey?
- 2) Clarifying questions about judgements that are +/-1.0 from the average; is this sentence ungrammatical/grammatical in every context?

What could be done to make the sentence acceptable?

- 3) Would adding *sér leið* as in *Bjartur braut sér leið gegnum mannþröngina* make sentence X more acceptable?
- 4) Did you happen to spot any mistakes in the survey? If so, do you have any suggestions on how to fix them?

\* ungrammatical/not acceptable translation  
 \*? not completely ungrammatical/marginal  
 ?\* would be grammatical with context

# acceptable but semantically/pragmatically odd  
 % wide variability in judgements

## APPENDIX 4: Dataset

The following dataset was constructed using the list of *-st* verbs that may occur in figure reflexives (based on Wood, 2014, p.13) and the examples for *trodast* ‘squeeze’ presented in Wood (2015) and Wood and Marantz (2017).

### Key

- \* ungrammatical/not acceptable translation
- # acceptable but semantically/pragmatically odd
- ?\* optimal translation for ungrammatical example, or would be grammatical with context
- \*? not completely ungrammatical/marginally grammatical
- % wide variability in judgements

- (a) *-st*-marked figure reflexive
- (b) *-st*-marked figure reflexive without PP
- (c) impersonal passive of *-st*-marked figure reflexive
- (d) impersonal passive of *-st*-marked figure reflexive without PP
- (e) unmarked figure reflexive
- (f) unmarked figure reflexive without PP
- (g) impersonal passive of unmarked figure reflexive
- (h) impersonal passive of unmarked figure reflexive without PP

*brjótast* ‘break (into/out of)’

- (a) Bjartur           braust           gegnum           mannþröngina  
 Bjartur.NOM       broke-ST       through       crowd.the.ACC  
 ‘Bjartur broke through the crowd.’  
 \*‘Bjartur broke (something) while moving through the crowd.’
- (b) \*Bjartur           braust  
 Bjartur.NOM       broke-ST  
 ?\*Bjartur broke (into movement).’  
 \*‘Bjartur broke (something).’
- (c) Þá           var       brotist           gegnum           mannþröngina  
 then       was       broke-ST       through       crowd.the.ACC  
 ‘Then there was breaking through the crowd (moving oneself)’  
 ‘Then there was breaking (of something) through the crowd.’
- (d) \*Þá           var       brotist  
 then       was       broke-ST  
 ?\*Then there was breaking (moving oneself).’  
 \*‘Then there was breaking (of something).’
- (e) \*Bjartur           braut       gegnum           mannþröngina  
 Bjartur.NOM       broke       through       crowd.the.ACC  
 \*‘Bjartur broke through the crowd.’  
 ?\*‘Bjartur broke (something) while moving through the crowd.’
- (f) \*?Bjartur           braut  
 Bjartur.NOM       broke  
 \*‘Bjartur broke (moving himself).’  
 ?\*‘Bjartur broke (something).’
- (g) \*Þá           var       brotið       gegnum           mannþröngina  
 then       was       broke       through       crowd.the.ACC  
 \*‘Then there was breaking through the crowd (moving oneself)’  
 ?\*‘Then there was breaking (of something) through the crowd.’
- (h) #Þá           var       brotið  
 then       was       broke  
 \*‘Then there was breaking (moving oneself).’  
 ?\*‘Then there was breaking (of something).’

\* ungrammatical/not acceptable translation  
 \*? not completely ungrammatical/marginal  
 ?\* would be grammatical with context

# acceptable but semantically/pragmatically odd  
 % wide variability in judgements

*böðlast* ‘struggle’

- (a) Bjartur            böðlaðist        gegnum            mannþröngina  
 Bjartur.NOM        struggled-ST        through            crowd.the.ACC  
 ‘Bjartur struggled through the crowd.’  
 \*‘Bjartur struggled (to move something) through the crowd.’
- (b) Bjartur            böðlaðist  
 Bjartur.NOM        struggled-ST  
 ‘Bjartur struggled (to move himself).’  
 \*‘Bjartur struggled (to move something).’  
 \*‘Bjartur struggled (emotionally).’
- (c) Þá            var        böðlast            gegnum            mannþröngina  
 then        was        struggled-ST        through            crowd.the.ACC  
 ‘Then there was struggling through the crowd (someone mvd. through the crowd).’  
 \*‘Then there was struggling (to move something) through the crowd.’
- (d) #Þá            var        böðlast  
 then        was        struggled-ST  
 ‘Then there was struggling (moving oneself).’  
 \*‘Then there was struggling (to move something).’  
 \*‘Then there was struggling (emotionally).’
- (e) \*?Bjartur            böðlaði            gegnum            mannþröngina  
 Bjartur.NOM        struggled            through            crowd.the.ACC  
 \*‘Bjartur struggled through the crowd.’  
 ‘Bjartur struggled (to move something) through the crowd.’
- (f) \*?Bjartur            böðlaði  
 Bjartur.NOM        struggled  
 \*‘Bjartur struggled (to move himself).’  
 ?\*‘Bjartur struggled (to move something).’  
 \*‘Bjartur struggled (emotionally).’
- (g) \*?Þá            var        böðlað            gegnum            mannþröngina  
 then        was        struggled            through            crowd.the.ACC  
 \*‘Then there was struggling through the crowd (someone mvd. thru the crowd).’  
 ?\*‘Then there was struggling (to move something) through the crowd.’
- (h) \*?Þá            var        böðlað  
 then        was        struggled  
 \*‘Then there was struggling (moving oneself).’  
 ?\*‘Then there was struggling (to move something).’  
 \*‘Then there was struggling (emotionally).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*dröslast* ‘drag’ (high variability, see Appendix 5 for the distribution of judgements)

- (a) Bjartur            dröslaðist        gegnum            mannþröngina  
 Bjartur.NOM        dragged-ST        through            crowd.the.ACC  
 ‘Bjartur dragged through the crowd (moving himself).’  
 \*‘Bjartur dragged (something) through the crowd.’
- (b) %Bjartur            dröslaðist  
 Bjartur.NOM        dragged-ST  
 ?\*‘Bjartur dragged (moving himself).’  
 \*‘Bjartur dragged (something).’
- (c) #Þá            var        dröslast            gegnum            mannþröngina  
 then        was        dragged-ST        through            crowd.the.ACC  
 ?\*‘Then there was dragging (of oneself) through the crowd.’  
 \*‘Then there was dragging (of something) through the crowd.’
- (d) %Þá            var        dröslast  
 then        was        dragged-ST  
 ?\*‘Then there was dragging (of oneself).’  
 \*‘Then there was dragging (of something).’
- (e) %Bjartur            dröslaði            gegnum            mannþröngina  
 Bjartur.NOM        dragged            through            crowd.the.ACC  
 ‘Bjartur dragged through the crowd (moving himself).’  
 ‘Bjartur dragged (something) through the crowd.’
- (f) %Bjartur            dröslaði  
 Bjartur.NOM        dragged  
 \*‘Bjartur dragged (moving himself).’  
 ?\*‘Bjartur dragged (something).’
- (g) %Þá            var        dröslað            gegnum            mannþröngina  
 then        was        dragged            through            crowd.the.ACC  
 %‘Then there was dragging (of oneself) through the crowd.’  
 % ‘Then there was dragging (of something) through the crowd.’
- (h) %Þá            var        dröslað  
 then        was        dragged  
 ?\*‘Then there was dragging (of oneself).’  
 \*‘Then there was dragging (of something).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*hlaupast* ‘run away’

- (a) \*Bjartur            hljópst gegnum            mannþröngina  
       Bjartur.NOM    ran-ST through            crowd.the.ACC  
       ?\*‘Bjartur ran through the crowd.’
- (b) \*Bjartur            hljópst  
       Bjartur.NOM    ran-ST  
       \*‘Bjartur ran (in place).’  
       ?\*‘Bjartur ran (moving from one place to another).’  
       \*‘Bjartur ran (away).’
- (c) \*?Þá            var    hlaupist            gegnum            mannþröngina  
       then    was    ran-ST            through            crowd.the.ACC  
       ?\*‘Then there was running through the crowd.’
- (d) \*Þá            var    hlaupist  
       then    was    ran-ST  
       ?\*‘Then there was running (moving oneself).’  
       \*‘Then there was running (in place).’  
       \*‘Then there was running (away).’
- (e) Bjartur            hljóp gegnum            mannþröngina  
       Bjartur.NOM    ran    through            crowd.the.ACC  
       ‘Bjartur ran through the crowd.’
- (f) Bjartur            hljóp  
       Bjartur.NOM    ran  
       ‘Bjartur ran (moving from one place to another).’  
       %‘Bjartur ran (in place).’  
       \*‘Bjartur ran (away).’
- (g) %Þá            var    hlaupið            gegnum            mannþröngina  
       then    was    ran            through            crowd.the.ACC  
       ‘Then there was running through the crowd.’
- (h) Þá            var    hlaupið  
       then    was    ran  
       ‘Then there was running (moving oneself).’  
       %‘Then there was running (in place).’  
       \*‘Then there was running (away).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*klöngrast* ‘clamber’ (high variability, see Appendix 5 for the distribution of judgements)

- (a) Bjartur klöngraðist gegnum mannþröngina  
 Bjartur.NOM clambered-ST through crowd.the.ACC  
 ‘Bjartur clambered through the crowd.’
- (b) %Bjartur klöngraðist  
 Bjartur.NOM clambered-ST  
 ‘Bjartur clambered (from one place to another).’  
 %‘Bjartur clambered (moving himself).’  
 %‘Bjartur clambered (moving something).’  
 \*‘Bjartur clambered (in place).’
- (c) %Þá var klöngrast gegnum mannþröngina  
 then was clambered-ST through crowd.the.ACC  
 ‘Then there was clambering (moving oneself) through the crowd.’  
 %‘Then there was clambering (of an object) through the crowd.’  
 \*‘Then there was clambering through the crowd (not necessarily moving oneself).’
- (d) \*?Þá var klöngrast  
 then was clambered-ST  
 ?\*‘Then there was clambering (moving oneself).’  
 ?\*‘Then there was clambering (not necessarily moving oneself).’  
 \*‘Then there was clambering (of an object).’
- (e) %Bjartur klöngraði gegnum mannþröngina  
 Bjartur.NOM clambered through crowd.the.ACC  
 %‘Bjartur clambered through the crowd.’
- (f) \*?Bjartur klöngraði  
 Bjartur.NOM clambered.  
 ?\*‘Bjartur clambered (moving himself).’  
 ?\*‘Bjartur clambered (from one place to another).’  
 \*‘Bjartur clambered (moving something).’  
 \*‘Bjartur clambered (in place).’
- (g) %Þá var klöngrað gegnum mannþröngina  
 then was clambered through crowd.the.ACC  
 % ‘Then there was clambering (moving oneself) through the crowd.’  
 %‘Then there was clambering through the crowd (not necessarily moving oneself).’  
 \*‘Then there was clambering (of an object) through the crowd.’
- (h) %Þá var klöngrað  
 then was clambered  
 %‘Then there was clambering (moving oneself).’  
 %‘Then there was clambering (not necessarily moving oneself).’  
 \*‘Then there was clambering (of an object).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*laumast* ‘sneak’

- (a) Bjartur            laumaðist        gegnum            mannþröngina  
 Bjartur.NOM        sneaked-ST        through            crowd.the.ACC  
 ‘Bjartur sneaked through the crowd.’
- (b) Bjartur            laumaðist  
 Bjartur.NOM        sneaked-ST  
 \*‘Bjartur sneaked (in place).’  
 ‘Bjartur sneaked (moving himself).’  
 \*‘Bjartur sneaked (moving something).’  
 ‘Bjartur sneaked (concealing himself).’  
 %‘Bjartur sneaked (concealing something).’  
 ‘Bjartur tried to go unnoticed (moving himself)’
- (c) #Þá            var        laumast            gegnum            mannþröngina  
 then        was        sneaked-ST        through            crowd.the.ACC  
 ‘Then there was sneaking (moving oneself) through the crowd.’  
 %‘Then there was sneaking (moving something) through the crowd.’  
 %‘Then there was sneaking (concealing oneself) through the crowd.’  
 %‘Then there was sneaking (concealing something) through the crowd.’
- (d) #Þá            var        laumast  
 then        was        sneaked-ST  
 ‘Then there was sneaking (moving oneself).’  
 \*‘Then there was sneaking (moving something).’  
 \*‘Then there was sneaking (concealing oneself).’  
 %‘Then there was sneaking (concealing something).’
- (e) \*Bjartur            laumaði            gegnum            mannþröngina  
 Bjartur.NOM        sneaked            through            crowd.the.ACC  
 \*‘Bjartur sneaked through the crowd.’
- (f) %Bjartur            laumaði  
 Bjartur.NOM        sneaked  
 \*‘Bjartur sneaked.’  
 \*‘Bjartur sneaked (in place).’  
 \*‘Bjartur sneaked (moving himself).’  
 ?\*‘Bjartur sneaked (moving something).’  
 \*‘Bjartur sneaked (concealing himself).’  
 ?\*‘Bjartur sneaked (concealing something).’
- (g) #Þá            var        laumað            gegnum            mannþröngina  
 then        was        sneaked            through            crowd.the.ACC  
 \*‘Then there was sneaking through the crowd.’  
 ?\*‘Then there was sneaking (moving oneself) through the crowd.’  
 \*‘Then there was sneaking (concealing oneself) through the crowd.’  
 ?\*‘Then there was sneaking (concealing something) through the crowd.’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

- (h) %Þá var laumað  
 then was sneaked  
 \*‘Then there was sneaking (moving oneself).’  
 ‘Then there was sneaking (moving something).’  
 \*‘Then there was sneaking (concealing oneself).’  
 ‘Then there was sneaking (concealing something).’

*læðast* ‘prowl/sneak’ (Note that one participant found (e)–(f) to be # instead of \*.)

- (a) Bjartur læddist gegnum mannþröngina  
 Bjartur.NOM prowled-ST through crowd.the.ACC  
 ‘Bjartur prowled through the crowd.’
- (b) Bjartur læddist  
 Bjartur.NOM prowled-ST  
 ‘Bjartur prowled (moving himself).’  
 \*‘Bjartur prowled (in place).’  
 \*‘Bjartur prowled (moving something).’
- (c) %Þá var læðst gegnum mannþröngina  
 then was prowled-ST through crowd.the.ACC  
 ‘Then there was prowling (moving oneself) through the crowd.’  
 \*‘Then there was prowling (moving something) through the crowd.’
- (d) #Þá var læðst  
 then was prowled-ST  
 ‘Then there was prowling (moving oneself).’  
 \*‘Then there was prowling (moving something).’
- (e) \*Bjartur læddi gegnum mannþröngina  
 Bjartur.NOM prowled through crowd.the.ACC  
 \*‘Bjartur prowled through the crowd.’
- (f) \*Bjartur læddi  
 Bjartur.NOM prowled  
 \*‘Bjartur prowled (moving himself).’  
 \*‘Bjartur prowled (in place).’
- (g) \*Þá var lætt gegnum mannþröngina  
 then was prowled through crowd.the.ACC  
 \*‘Then there was prowling (moving oneself) through the crowd.’  
 \*‘Then there was prowling (moving something) through the crowd.’
- (h) \*Þá var lætt  
 then was prowled  
 \*‘Then there was prowling (moving oneself).’  
 \*‘Then there was prowling (moving something).’  
 \*‘Then there was prowling (in place).’

\* ungrammatical/not acceptable translation  
 \*? not completely ungrammatical/marginal  
 ?\* would be grammatical with context

# acceptable but semantically/pragmatically odd  
 % wide variability in judgements

*ryðjast* ‘barge’ (high speaker variability, see Appendix 5 for distribution)

(a) Bjartur            ruddist            gegnum            mannþröngina  
 Bjartur.NOM      barged-ST      through            crowd.the.ACC  
 ‘Bjartur barged through the crowd.’

(b) Bjartur            ruddist  
 Bjartur.NOM      barged-ST  
 ‘Bjartur barged (moving himself).’  
 ‘Bjartur barged (moving something).’

(c) \*Þá            var            rust            gegnum            mannþröngina.  
 then            was      barged-ST      through            crowd.the.ACC  
 ‘Then there was barging through the crowd.’  
 ‘Then there was barging (moving oneself) through the crowd.’  
 ‘Then there was barging (moving something) through the crowd.’

(d) \*Þá            var            rust  
 then            was      barged-ST  
 ‘Then there was barging (moving oneself).’  
 ‘Then there was barging (moving something).’

(e) %Bjartur            ruddi      gegnum            mannþröngina  
 Bjartur.NOM      barged through            crowd.the.ACC  
 ‘Bjartur barged through the crowd.’

(f) %Bjartur            ruddi  
 Bjartur.NOM      barged  
 ‘Bjartur barged (moving himself).’  
 ‘Bjartur barged (moving something).’

(g) \*?Þá            var            rutt            gegnum            mannþröngina  
 then            was      barged through            crowd.the.ACC  
 ‘Then there was barging through the crowd.’  
 ‘Then there was barging (moving oneself) through the crowd.’  
 ‘Then there was barging (moving something) through the crowd.’

(h) \*?Þá            var            rutt  
 then            was      barged  
 ‘Then there was barging (moving oneself).’  
 ‘Then there was barging (moving something).’

\* ungrammatical/not acceptable translation  
 \*? not completely ungrammatical/marginal  
 ?\* would be grammatical with context

# acceptable but semantically/pragmatically odd  
 % wide variability in judgements



*skreiðast* ‘crawl’ (high speaker variability, see Appendix 5 for distribution)

- (a) %Bjartur           skreist           gegnum           mannþröngina  
 Bjartur.NOM   crawled-ST   through       crowd.the.ACC  
 %‘Bjartur crawled through the crowd.’  
 \*‘Bjartur crawled through the crowd (figuratively).’
- (b) %Bjartur           skreist  
 Bjartur.NOM   crawled-ST  
 ?\*‘Bjartur crawled (moving himself).’  
 ?\*‘Bjartur crawled (in place).’  
 \*‘Bjartur crawled (figuratively).’
- (c) %Þá       var   skriðist           gegnum           mannþröngina  
           then   was   crawled-ST   through       crowd.the.ACC  
 ?\*‘Then there was crawling through the crowd.’  
 \*‘Then there was crawling through the crowd (figuratively).’
- (d) %Þá       var   skriðist  
           then   was   crawled-ST  
 ?\*‘Then there was crawling (moving oneself).’  
 \*‘Then there was crawling (in place).’  
 \*‘Then there was crawling (figuratively).’
- (e) Bjartur           skreið           gegnum           mannþröngina  
 Bjartur.NOM   crawled       through       crowd.the.ACC  
 ‘Bjartur crawled through the crowd.’  
 \*‘Bjartur crawled through the crowd (figuratively).’
- (f) Bjartur           skreið  
 Bjartur.NOM   crawled  
 ‘Bjartur crawled (moving himself).’  
 %‘Bjartur crawled (in place).’  
 \*‘Bjartur crawled (figuratively).’
- (g) Þá       var   skriðið           gegnum           mannþröngina (*rated # by some*)  
           then   was   crawled       through       crowd.the.ACC  
 ‘Then there was crawling through the crowd.’  
 \*‘Then there was crawling through the crowd (figuratively).’
- (h) Þá       var   skriðið       (*rated # by some*)  
           then   was   crawled  
 ‘Then there was crawling (moving oneself).’  
 \*‘Then there was crawling (in place).’  
 \*‘Then there was crawling (figuratively).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*skrönglast* ‘move reluctantly’

- (a) Bjartur            skrönglaðist            gegnum            mannþröngina  
 Bjartur.NOM    moved(reluctantly)-STthrough    crowd.the.ACC  
 ‘Bjartur moved reluctantly through the crowd.’
- (b) %Bjartur            skrönglaðist            (*requires context, but not for everyone*)  
 Bjartur.NOM    moved(reluctantly)-ST  
 ‘Bjartur moved reluctantly.’  
 \*‘Bjartur moved reluctantly (in place).’  
 ‘Bjartur moved reluctantly (from one place to another).’  
 \*‘Bjartur moved (something) reluctantly.’
- (c) #Þá            var            skrönglast            gegnum            mannþröngina  
 then            was            moved(reluctantly)-STthrough            crowd.the.ACC  
 ‘Then there was reluctant moving through the crowd.’  
 ‘Then there was reluctant moving (of oneself) through the crowd.’  
 \*‘Then there was reluctant moving (of something) through the crowd.’
- (d) #Þá            var            skrönglast            (*needs context of where one is moving*)  
 then            was            moved(reluctantly)-ST  
 ?\*‘Then there was reluctant moving.’  
 ?\*‘Then there was reluctant moving (of oneself).’  
 \*‘Then there was reluctant moving (of something).’
- (e) \*?Bjartur            skrönglaði            gegnum            mannþröngina  
 Bjartur.NOM    moved(reluctantly)    through            crowd.the.ACC  
 \*‘Bjartur moved reluctantly through the crowd.’  
 \*?‘Bjartur moved (something else) reluctantly through the crowd.’
- (f) \*?Bjartur            skrönglaði  
 Bjartur.NOM    moved(reluctantly)  
 \*‘Bjartur moved reluctantly.’  
 \*‘Bjartur moved reluctantly (in place).’  
 \*‘Bjartur moved reluctantly (from one place to another).’  
 \*?‘Bjartur moved (something) reluctantly.’
- (g) \*?Þá            var            skrönglað            gegnum            mannþröngina  
 then            was            moved(reluctantly)    through            crowd.the.ACC  
 %‘Then there was reluctant moving through the crowd.’  
 %‘Then there was reluctant moving (of oneself) through the crowd.’  
 %‘Then there was reluctant moving (of something) through the crowd.’
- (h) \*?Þá            var            skrönglað  
 then            was            moved(reluctantly)  
 %‘Then there was reluctant moving.’  
 %‘Then there was reluctant moving (of oneself).’  
 %‘Then there was reluctant moving (of something).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*staulast* ‘totter (along)’

- (a) Bjartur            staulaðist        gegnum            mannþröngina  
 Bjartur.NOM        tottered-ST        through            crowd.the.ACC  
 ‘Bjartur tottered through the crowd.’  
 \*‘Bjartur tottered along through the crowd.’
- (b) \*Bjartur            staulaðist  
 Bjartur.NOM        tottered-ST  
 \*‘Bjartur tottered.’  
 \*‘Bjartur tottered along.’  
 \*‘Bjartur tottered (moving himself from one place to another).’  
 \*‘Bjartur tottered (in place).’
- (c) Þá            var        staulast                            gegnum            mannþröngina  
 then        was        tottered(along)-ST        through            crowd.the.ACC  
 ‘Then there was tottering through the crowd.’  
 \*‘Then there was tottering along through the crowd.’
- (d) \*?Þá            var        staulast  
 then        was        tottered-ST  
 \*?‘Then there was tottering.’  
 \*‘Then there was tottering along.’  
 \*‘Then there was tottering (moving oneself from one place to another).’  
 \*‘Then there was tottering (in place).’
- (e) \*Bjartur            staulaði            gegnum            mannþröngina  
 Bjartur.NOM        tottered            through            crowd.the.ACC  
 \*‘Bjartur tottered through the crowd.’  
 \*‘Bjartur tottered along through the crowd.’
- (f) \*Bjartur            staulaði  
 Bjartur.NOM        tottered  
 \*‘Bjartur tottered.’  
 \*‘Bjartur tottered along.’  
 \*‘Bjartur tottered (moving himself from one place to another).’  
 \*‘Bjartur tottered (in place).’
- (g) \*Þá            var        staulað            gegnum            mannþröngina  
 then        was        tottered            through            crowd.the.ACC  
 \*‘Then there was tottering through the crowd.’  
 \*‘Then there was tottering along through the crowd.’
- (h) \*Þá            var        staulað  
 then        was        tottered  
 \*‘Then there was tottering.’  
 \*‘Then there was tottering along.’  
 \*‘Then there was tottering (moving oneself from one place to another).’  
 \*‘Then there was tottering (in place).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*troðast* ‘squeeze’

- (a) Bjartur            tróðst            gegnum            mannþröngina  
 Bjartur.NOM        squeezed-ST        through            crowd.the.ACC  
 ‘Bjartur squeezed through the crowd.’  
 \*‘Bjartur squeezed (something) while moving through the crowd.’
- (b) Bjartur            tróðst  
 Bjartur.NOM        squeezed-ST  
 ‘Bjartur squeezed (himself).’  
 \*‘Bjartur squeezed (something).’
- (c) Þá            var        troðast            gegnum            mannþröngina  
 then was squeezed-ST        through            crowd.the.ACC  
 ‘Then there was squeezing (of oneself) through the crowd.’  
 \*‘Then there was squeezing (of something) through the crowd.’
- (d) #Þá            var        troðist  
 then        was        squeezed-ST  
 ‘Then there was squeezing (of oneself).’  
 ‘Then there was squeezing (of something).’
- (e) #Bjartur            tróð            gegnum            mannþröngina  
 Bjartur.NOM        squeezed        through            crowd.the.ACC  
 \*‘Bjartur squeezed through the crowd’  
 ‘Bjartur squeezed (something) while moving through the crowd.’
- (f) #Bjartur            tróð  
 Bjartur.NOM        squeezed  
 \*‘Bjartur squeezed (himself).’  
 ‘Bjartur squeezed (something).’
- (g) #Þá            var        troðið            gegnum            mannþröngina  
 then        was        squeezed        through            crowd.the.ACC  
 #‘Then there was squeezing (of oneself) through the crowd.’  
 ‘Then there was squeezing (of something) through the crowd.’
- (h) Þá            var        troðið  
 then        was        squeezed  
 \*‘Then there was squeezing (of oneself).’  
 ‘Then there was squeezing (of something).’  
 ‘Then it was packed (with people).’

\* ungrammatical/not acceptable translation

\*? not completely ungrammatical/marginal

?\* would be grammatical with context

# acceptable but semantically/pragmatically odd

% wide variability in judgements

*þvælast* ‘wander’

- (a) Bjartur            þvældist            gegnum            mannþröngina  
 Bjartur.NOM        wandered-ST        through            crowd.the.ACC  
 ‘Bjartur wandered through the crowd.’
- (b) %Bjartur            þvældist  
 Bjartur.NOM        wandered-ST  
 %‘Bjartur wandered (moving himself).’  
 \*‘Bjartur wandered (figuratively, in his thoughts).’
- (c) #Þá            var            þvælst            gegnum            mannþröngina  
 then            was            wandered-ST        through            crowd.the.ACC  
 ‘Then there was wandering through the crowd.’
- (d) #Þá    var    þvælst  
 then was wandered-ST  
 ‘Then there was wandering (moving oneself).’  
 %‘Then there was wandering (figuratively, in thoughts).’
- (e) #Bjartur            þvældi            gegnum            mannþröngina (\* or acceptable)  
 Bjartur.NOM        wandered-ST        through            crowd.the.ACC  
 ‘Bjartur wandered through the crowd.’
- (f) %Bjartur            þvældi (\* or acceptable)  
 Bjartur.NOM        wandered  
 ‘Bjartur wandered (moving himself).’  
 ‘Bjartur wandered (figuratively, in his thoughts).’
- (g) %Þá            var            þvælt            gegnum            mannþröngina (\* or #)  
 then            was            wandered            through            crowd.the.ACC  
 ‘Then there was wandering through the crowd.’
- (h) %Þá            var            þvælt            (\* or #)  
 then            was            wandered  
 ‘Then there was wandering (moving oneself).’  
 ‘Then there was wandering (figuratively, in thoughts).’

\* ungrammatical/not acceptable translation  
 \*? not completely ungrammatical/marginal  
 ?\* would be grammatical with context

# acceptable but semantically/pragmatically odd  
 % wide variability in judgements

## APPENDIX 5: Result tables for each verb root

### Key

- (a) *-st*-marked figure reflexive  
i.e. *Bjartur tróðst gegnum mannþröngina*
- (b) *-st*-marked figure reflexive without PP  
i.e. *Bjartur tróðst.*
- (c) Impersonal passive of *-st*-marked figure reflexive  
i.e. *Þá var troðist gegnum mannþröngina*
- (d) Impersonal passive of *-st*-marked figure reflexive without PP  
i.e. *Þá var troðist*
- (e) Unmarked figure reflexive  
i.e. *Bjartur tróð gegnum mannþröngina*
- (f) Unmarked figure reflexive without PP  
i.e. *Bjartur tróð*
- (g) Impersonal passive of unmarked figure reflexive  
i.e. *Þá var troðið gegnum mannþröngina*
- (h) Impersonal passive of unmarked figure reflexive without PP  
i.e. *Þá var troðið.*

### *troðast* ‘squeeze’

P= 8

Type	<i>troðst/troðist</i>	<i>tróð/tróðið</i>
Figure Reflexive	5, 5, 5, 4, 5, 3, 5, 5	1, 3, 2, 2, 4, 2, 2, 1
Fig. Refl. with no pP	3, 5, 5, 3, 4, 1, 2, 4	2, 3, 5, 5, 4, 2, 3, 5
Impersonal Passive	4, 5, 3, 4, 4, 1, 2, 4	1, 4, 2, 2, 4, 2, 2, 1
Imp. Pass. with no pP	3, 5, 3, 3, 4, 3, 1, 4	3, 5, 5, 3, 4, 3, 3, 4

### Interpretations

- Bjartur squeezed through the crowd x8
- Bjartur squeezed himself x8  
Other: (3/5 rating) Needs context, why or where was he squeezing?
- Then there was squeezing of oneself through the crowd x8
- Then there was squeezing (of oneself) x7  
No possible meaning x 1
- No possible meaning x2  
Bjartur squeezed (something) while moving through the crowd x4  
Bjartur squeezed through the crowd x2  
Other (4/5): Bjartur moved through the crowd
- Bjartur squeezed (something)x7  
Bjartur dunked x1
- No possible meaning x2  
Then there was squeezing (of something) through the crowd x2  
Then there was squeezing (of oneself) through the crowd x 5
- Then there was squeezing (of something) x6

Other: Then it was packed (with people)  
Then there was dunking

***brjótast*** ‘break (into/out of)’

P=3

<i>Type</i>	<i>braust/brotist</i>	<i>braut/brotið</i>
<i>Figure Reflexive</i>	<b>4, 5, 5</b>	<b>1, 1, 1</b>
<i>Fig. Refl. with no pP</i>	<b>1, 1, 1</b>	<b>2, 2, 5</b>
<i>Impersonal Passive</i>	<b>4, 4, 4</b>	<b>1, 1, 1</b>
<i>Imp. Pass. with no pP</i>	<b>1, 1, 1</b>	<b>2, 2, 4</b>

*Interpretations*

- a. Bjartur broke through the crowd x3
- b. Bjartur broke (into movement) x2  
No possible meaning  
Other: Needs context, otherwise no possible meaning
- c. Then there was breaking through the crowd (someone moved thru. the cwd.) x3
- d. No possible meaning x2  
Would mean ‘Then there was breaking into motion (moving oneself)’
- e. No possible meaning x2  
Would mean ‘Bjartur broke (something) while moving through the crowd’
- f. Bjartur broke (something) x3 = Other, needs context
- g. No possible meaning x2  
Would mean ‘Then there was breaking (of something) through the crowd’
- h. Then there was breaking (of something) x3 = Other, needs context

**böðlast** ‘struggle’

P= 6

<i>Type</i>	<i>böðlaðist/böðlast</i>	<i>böðlaði/böðlað</i>
<i>Figure Reflexive</i>	5, 4, 5, 5, 5, 5	2, 3, 1, 3, 2, 2
<i>Fig. Refl. with no pP</i>	4, 4, 3, 4, 4, 3	2, 3, 1, 2, 2, 1
<i>Impersonal Passive</i>	5, 3, 3, 4, 4, 2	2, 2, 1, 3, 1, 1
<i>Imp. Pass. with no pP</i>	3, 3, 3, 3, 4, 1	2, 2, 1, 3, 1, 1

*Interpretations*

- a. Bjartur struggled through the crowd x6
- b. Bjartur struggled (to move himself) x5  
Bjartur struggled (to move something) x1 (3/5)
- c. Then there was struggling through the crowd (someone moved through the crowd) x6
- d. Then there was struggling (to move oneself) x4  
Then there was struggling (to move something)x2  
No possible meaning x1
- e. Bjartur struggled (to move something) through the crowd x2  
Bjartur struggled through the crowd x3
- f. Bjartur struggled (to move something) x3  
Bjartur struggled to move himself  
No possible meaning x1
- g. Then there was struggling (to move something) through the crowd x2  
Then there was struggling (someone moved through the crowd) x2  
No possible meaning x2
- h. Then there was struggling (to move something) x3  
No possible meaning x2

**dröslast ‘drag’**

P=6

<i>Type</i>	<i>dröslaðist/dröslað</i>	<i>dröslaði/dröslað</i>
<i>Figure Reflexive</i>	4, 5, 4, 5, 4, 5	1, 3, 4, 5, 2, 3
<i>Fig. Refl. with no pP</i>	1, 5, 5, 5, 1, 4	1, 3, 4, 3, 1, 3
<i>Impersonal Passive</i>	3, 3, 3, 5, 2, 5	1, 4, 3, 2, 1, 4
<i>Imp. Pass. with no pP</i>	1, 3, 3, 3, 1, 4	1, 3, 3, 2, 1, 3

*Interpretations*

- a. Bjartur dragged (himself) through the crowd x6
- b. No possible meaning  
Bjartur dragged (moving himself) x4
- c. Then there was dragging (of oneself) through the crowd x4  
Then there was dragging (of something) through the crowd x3
- d. No possible meaning  
Then there was dragging (moving oneself) x 4  
Then there was dragging (of something)
- e. No possible meaning  
Bjartur dragged (something) through the crowd x 4  
Bjartur dragged (himself) through the crowd x1 (5/5), x1 (2/5)
- f. No possible meaning x2  
Bjartur dragged (something) x5
- g. No possible meaning x2  
Then there was dragging (of oneself) x2  
Then there was dragging (of something) x3
- h. No possible meaning x2  
Then there was dragging (moving oneself) x2  
Then there was dragging (of something) x3

***hlaupast*** ‘run away’

P=4

<i>Type</i>	<i>hljóst/hlaupist</i>	<i>hljóp/hlaupið</i>
<i>Figure Reflexive</i>	1, 1, 2, 2	4, 5, 5, 5
<i>Fig. Refl. with no pP</i>	1, 1, 2, 2	4, 5, 5, 5
<i>Impersonal Passive</i>	1, 1, 3, 1	4, 5, 3, 5
<i>Imp. Pass. with no pP</i>	1, 1, 2, 1	5, 4, 5, 5

*Interpretations*

- a. No possible meaning  
Would mean ‘Bjartur ran through the crowd’ x3
- b. No possible meaning  
Would mean ‘Bjartur ran from one place to another’ x2  
Bjartur ran in place x1  
Bjartur ran away x2
- c. No possible meaning  
Would mean ‘then there was running through the crowd’ x3
- d. No possible meaning, then there was running (moving oneself) x2, then there was running (away) x1
- e. Bjartur ran through the crowd x4
- f. Bjartur ran (from one place to another) x4  
Bjartur ran (away)  
Bjartur ran (in place) x2
- g. Then there was running through the crowd x4
- h. Then there was running (moving oneself) x4  
Then there was running (away) x2  
Then there was running (in place)

**klöngrast ‘clamber’**

P=3

<i>Type</i>	<i>klöngraðist/klöngrast</i>	<i>klöngraði/klöngrað</i>
<i>Figure Reflexive</i>	<b>5, 5, 5</b>	<b>3, 2, 1</b>
<i>Fig. Refl. with no pP</i>	<b>5, 3, 2</b>	<b>2, 1, 1</b>
<i>Impersonal Passive</i>	<b>4, 2, 4</b>	<b>3, 2, 1</b>
<i>Fig. Refl. with no pP</i>	<b>2, 2, 2</b>	<b>3, 1, 1</b>

*Interpretations*

- a. Bjartur clambered through the crowd x3
- b. Bjartur clambered (from one place to another) x3  
Bjartur clambered (moving something) x1  
Bjartur clambered (moving himself) x2
- c. Then there was clambering (moving oneself) through the crowd x3  
Then there was clambering (of an object) through the crowd x1
- d. Then there was clambering (of an object) x1  
Then there was clambering (moving oneself) x3  
Then there was clambering (not necessarily moving oneself) x1
- e. Bjartur clambered through the crowd x2  
No possible meaning x1
- f. Bjartur clambered (from one place to another), x1  
Bjartur clambered (moving himself) x1  
No possible meaning x2
- g. Then there was clambering (moving oneself) through the crowd x2  
Then there was clambering (not necessarily moving oneself) thru. the crowd x1  
No possible meaning x1
- h. Then there was clambering (moving oneself) x1  
Then there was clambering (not necessarily moving oneself) x1  
No possible meaning x2

**laumast ‘sneak’**

P=6

<i>Type</i>	<i>laumaðist/laumast</i>	<i>laumaði/laumað</i>
<i>Figure Reflexive</i>	4, 5, 5, 5, 5, 5	1, 3, 1, 2, 1, 2 (missing obj)
<i>Fig. Refl. with no pP</i>	5, 5, 5, 5, 5, 4	1, 3, 5, 3, 1, 2
<i>Impersonal Passive</i>	2, 3, 3, 3, 2, 4	3, 2, 3, 1, 1, 2 (missing obj)
<i>Imp. Pass. with no pP</i>	2, 3, 3, 3, 2, 3	2, 1, 3, 1, 1, 2

*Interpretations*

- a. Bjartur sneaked through the crowd x6
- b. Bjartur sneaked (moving himself) x5  
Bjartur sneaked (concealing himself) x6  
Bjartur sneaked (concealing something) x2  
Other: Bjartur tried to go unnoticed (moving himself)
- c. Then there was sneaking (moving oneself) through the crowd x6  
Then there was sneaking (concealing oneself) through the crowd x6  
Then there was sneaking (moving something) through the crowd  
Then there was sneaking (concealing something) through the crowd
- d. Then there was sneaking (moving oneself) x6  
Then there was sneaking (concealing oneself) x3  
Then there was sneaking (concealing something)
- e. No possible meaning x3, Bjartur sneaked through the crowd x1  
Other: Needs to specify what he is moving through the crowd. x1  
Other: Bjartur sneaked something x1
- f. No possible meaning x2  
Bjartur sneaked (moving something) x4 = Other: Needs context  
Bjartur sneaked (concealing something) x4 = Other: Needs context
- g. Then there was sneaking (concealing something) through the crowd x3  
Then there was sneaking (moving something) through the crowd x4  
Then there was sneaking (concealing oneself) x1  
Other: needs context of what is being sneaked or concealed, (moving oneself)  
No possible meaning x1
- h. Then there was sneaking (moving something) x3  
Then there was sneaking (concealing something) x3  
Then there was sneaking (concealing oneself)  
No possible meaning x2

*læðast 'prowl/sneak'*

P=5

<i>Type</i>	<i>læddist/læðst</i>	<i>læddi/lætt</i>
<i>Figure Reflexive</i>	4, 5, 5, 5, 5	1, 1, 3, 1, 1
<i>Fig. Refl. with no pP</i>	5, 5, 5, 5, 4	1, 1, 3, 1, 1
<i>Impersonal Passive</i>	2, 4, 5, 4, 3	1, 1, 3, 1, 1
<i>Imp. Pass. with no pP</i>	2, 3, 4, 4, 4	1, 1, 2, 1, 1

*Interpretations*

- a. Bjartur prowled through the crowd x5  
Other: Bjartur snuck through the crowd  
Bjartur tiptoed through the crowd  
Other: Very acceptable
- b. Bjartur prowled (moving himself) x4  
Bjartur prowled x3
- c. Then there was prowling (moving oneself) through the crowd x5  
Other: needs context
- d. Then there was prowling (moving oneself) x5
- e. No possible meaning x4  
Bjartur prowled through the crowd x1
- f. No possible meaning x4  
Bjartur prowled (moving himself) x1  
Bjartur prowled x1
- g. No possible meaning x4  
Then there was prowling (moving oneself) through the crowd x1  
Then there was prowling through the crowd x1
- h. No possible meaning x4  
Then there was prowling (moving oneself)

*ryðjast 'barge'*

P=2

<i>Type</i>	<i>ruddist/rust</i>	<i>ruddi/rutt</i>
<i>Figure Reflexive</i>	<b>5, 5</b>	<b>1, 3</b>
<i>Fig. Refl. with no pP</i>	<b>3, 4</b>	<b>1, 3</b>
<i>Impersonal Passive</i>	<b>1, 2</b>	<b>1, 2</b>
<i>Imp. Pass. with no pP</i>	<b>1, 2</b>	<b>1, 2</b>

*Interpretations*

- a. Bjartur barged through the crowd x2
- b. Bjartur barged (moving himself) x2
- c. Then there was barging through the crowd (if grammatical)  
Then there was barging (moving oneself) through the crowd x1
- d. Then there was barging (moving something)  
No possible meaning
- e. Bjartur barged through the crowd x2 (if grammatical)
- f. Bjartur barged (moving something) x1  
Bjartur barged (moving himself) x1 (if grammatical)
- g. Then there was barging through the crowd (if grammatical)  
No possible meaning
- h. No possible meaning  
Then there was barging (moving something) (if grammatical)

*ryðjast 'shove'*

P=3

<i>Type</i>	<i>ruddist/rust</i>	<i>ruddi/rutt</i>
<i>Figure Reflexive</i>	<b>5, 5, 5</b>	<b>1, 1, 3</b>
<i>Fig. Refl. with no pP</i>	<b>4, 4, 4</b>	<b>2, 1, 4</b>
<i>Impersonal Passive</i>	<b>4, 1, 1</b>	<b>1, 1, 4</b>
<i>Imp. Pass. with no pP</i>	<b>3, 1, 1</b>	<b>5, 1, 3</b>

*Interpretations*

- a. Bjartur shoved through the crowd x3
- b. Bjartur shoved (moving himself) x3 = Other: Needs context preferably  
Bjartur shoved (moving something)
- c. Then there was shoving (moving oneself) through the crowd  
No possible meaning x2
- d. Then there was shoving (moving oneself) = Other: Needs context  
No possible meaning x2
- e. No possible meaning x2  
Bjartur shoved through the crowd x1
- f. No possible meaning x2 = but could work with context (like a DO)  
Bjartur shoved (moving something) x2
- g. No possible meaning x2  
Then there was shoving (moving something) through the crowd
- h. No possible meaning x 1  
Then there was shoving (moving something) x2  
Other: like in the context of taking something out of the way

*skreiðast* ‘crawl’

P=4

Type	<i>skreist/skriðist</i>	<i>skreið/skriðið</i>
<i>Figure Reflexive</i>	1, 1, 3, 4	5, 5, 4, 5
<i>Fig. Refl. with no pP</i>	1, 1, 3, 1	5, 5, 5, 4
<i>Impersonal Passive</i>	1, 1, 3, 2	5, 3, 5, 4
<i>Imp. Pass. with no pP</i>	1, 1, 4, 1	5, 3, 4, 2

*Interpretations*

- a. No possible meaning  
Would mean ‘Bjartur crawled through the crowd’ x2
- b. No possible meaning x2  
‘Bjartur crawled (moving himself)’ x2  
Would mean ‘Bjartur crawled (in place)’ if possible
- c. No possible meaning  
Would mean ‘Then there was crawling (moving oneself) through the crowd’  
‘Then there was crawling through the crowd’ x2
- d. No possible meaning  
Then there was crawling (moving oneself)  
Then there was crawling x2
- e. Bjartur crawled through the crowd x4
- f. Bjartur crawled (in place)  
Bjartur crawled (moving himself) x4
- g. Then there was crawling through the crowd (moving oneself) x3  
Then there was crawling through the crowd x2
- h. Then there was crawling (moving oneself) x3  
Then there was crawling

P1, P2, P3 = Responses for Incorrect Version 1

P4 = Responses for Corrected Version 2

**skrönglast ‘move reluctantly’**

P=4

<i>Type</i>	<i>skrönglaðist/skrönglast</i>	<i>skrönglaði/skrönglað</i>
<i>Figure Reflexive</i>	5, 4, 5, 5	1, 2, 1, 3
<i>Fig. Refl. with no pP</i>	3, 3, 5, 5	1, 3, 1, 3
<i>Impersonal Passive</i>	4, 2, 3, 5	1, 2, 3, 4
<i>Imp. Pass. with no pP</i>	3, 2, 3, 4	1, 2, 3, 3

*Interpretations*

- a. Bjartur moved reluctantly through the crowd x4
- b. Bjartur moved reluctantly (from one place to another) x4  
Bjartur moved reluctantly x2  
Bjartur moved reluctantly (in place) x1  
Other: Needs context
- c. Then there was reluctant moving (of oneself) through the crowd x4
- d. Then there was reluctant moving (of oneself) x4  
Other: needs context of where one is moving
- e. No possible meaning x2  
Bjartur moved through the crowd x1  
Other: Bjartur moved something else through the crowd x1
- f. No possible meaning x2  
Bjartur moved (something) reluctantly x1  
Bjartur moved reluctantly (from one place to another) x1
- g. No possible meaning x2  
There was reluctant moving (of something) through the crowd  
There was reluctant moving (of oneself) through the crowd x2
- h. No possible meaning x2  
There was reluctant moving (of something)  
There was reluctant moving of oneself x2

**staulast ‘totter (along)’**

P=2

Type	staulaðist/staulast	staulaði/staulað
Figure Reflexive	4, 5	1, 1
Fig. Refl. with no pP	1, 4	1, 1
Impersonal Passive	4, 4	1, 1
Imp. Pass. with no pP	2, 1	1, 1

*Interpretations*

- a. Bjartur tottered through the crowd x2
- b. No possible meaning x2  
Other: *The verb staulast always requires a direction adverbial or PP (e.g. "staulaðist áfram", "staulaðist út") GH*
- c. Then there was tottering through the crowd x2  
Other: *Again, an impersonal construction to me always implies a 1sg or 1pl agent (so really 'we/I tottered...') GH*
- d. Then there was tottering x1  
No possible meaning x1
- e. No possible meaning x2  
Other: *To me there exists no such verb as "staula" (and I've never heard it)*
- f. No possible meaning x2
- g. No possible meaning x2
- h. No possible meaning x2

***þvælast*** 'wander'

P=3

<i>Type</i>	<i>þvældist/þvælst</i>	<i>þvældi/þvælt</i>
<i>Figure Reflexive</i>	<b>4, 4, 5</b>	<b>1, 4, 1</b>
<i>Fig. Refl. with no pP</i>	<b>1, 5, 1</b>	<b>1, 4, 1</b>
<i>Impersonal Passive</i>	<b>2, 3, 4</b>	<b>1, 3, 1</b>
<i>Imp. Pass. with no pP</i>	<b>2, 3, 1</b>	<b>1, 3, 1</b>

*Interpretations*

- a. Bjartur wandered through the crowd x3
- b. No possible meaning x2, Bjartur wandered (moving himself)
- c. Then there was wandering through the crowd x3
- d. Then there was wandering (in thoughts)  
Then there was wandering (moving oneself) x 2  
No possible meaning x1
- e. No possible meaning x2  
Bjartur wandered through the crowd x1
- f. No possible meaning x2  
Bjartur wandered (moving himself) x1
- g. No possible meaning x2  
Then there was wandering through the crowd x1
- h. No possible meaning x2  
Then there was wandering (moving oneself) x1

## APPENDIX 6: Summary of the implications of the results

The following table summarizes the implications of each possible result of the survey for the constructions involving verb roots with *-st*-marking. A simplified version of this table is given in Table 2 (p. 13).

**Table A. Implications of the results for verbs with *-st*-marking**

<i>Type</i>	Possible?	EXPLETIVE ARGUMENT	UNERGATIVE	DERIVED SUBJECT
<i>Figure Reflexive with pP</i>	Yes	Supported	No implication	No implication
	No	Contested	No implication	No implication
<i>Fig. Refl. with no pP</i>	Yes	Contested	Supported	Supported
	No	Supported	Not supported	Not supported
<i>Impersonal Passive with pP</i>	Yes	Supported	Supported	Contested
	No	Contested	Contested	Supported
<i>Imp. Pass. with no pP</i>	Yes	Contested	Supported	Contested
	No	Supported	Supported (with conditions)	Contested