

&⁰: The Syntax and Semantics of ‘Slash’ and ‘And/or’

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Abstract

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I claim that *slash* has become the first new coordinator in English in recent history. I use data from naturally observed spontaneous conversation and examples from corpora to demonstrate that *slash* is an English syntactic coordinator that combines readily with most syntactic categories, both heads and phrasal categories. *Slash* has a homoreferentiality requirement, where the denotata of the conjuncts must be fused. In cases of non-referring expressions, slash-coordination takes partial characteristics of all coordinands. With a series of three acceptability-judgment experiments, I demonstrate that speakers systematically judge sentences in a way that is consistent with this requirement. *And/or* is another English coordinator, which is essentially a device to specify the inclusive disjunction in English. It has an additional pragmatic component of ‘speaker uncertainty’ governing its use. These two conjunctions *slash* and *and/or* join the small class of coordinating conjunctions in English and help us understand the limits of speaker innovation in functional categories.

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Chapter 1

SYNTAX AND SEMANTICS OF COORDINATION

1.1 Introduction

This dissertation advances the hypothesis that functional categories are not only the locus of parameterization across languages, but the locus of innovation of new types of constraints. I focus on coordination in English, and particularly on two previously under-studied (or unstudied) coordinators: *slash* and *and/or*. I demonstrate that slash is categorized by speakers as a coordinator just like the traditional ones *and* and *or*. Slash has a special distribution and syntactic behavior that I propose is governed in part by a semantic restriction on *slash* being an intersective coordinator. *And/or* has unique pragmatic requirements including SPEAKER UNCERTAINTY that regulate its use as well. I present the results of three acceptability-judgment experiments, which support these proposals. I show that speakers are able to innovate new functional words that exhibit unique constraints, and that these words provide new evidence supporting the robustness of general constraints on the structure and semantics of coordinators in the mental grammar.

It remains useful to categorize coordination as a functional category, but the traditional assumption that coordination is a “the most closed class” is reexamined. There are more coordinating conjunctions in English than traditionally assumed, and I demonstrate that these follow

structural and processing constraints that are general to the coordination category.

Another goal of this dissertation is to revisit some of the syntactic and semantic structures and constraints associated with coordination, re-evaluate them based on novel data from unstudied or understudied coordinators *slash* and *and/or*, and provide experimental evidence of native speakers' systematic judgments about the behavior of both of these.

The structure of coordination has been recognized as a special topic in syntax from the early days of linguistics. There are several reasons why coordination is fascinating for syntacticians. First, it seems to be universal in natural language. Gil (1991) argues that Maricopa (Arizona; Yuman) has no overt equivalent for English *and*; speakers must rely on juxtaposition, where two conjuncts are placed directly next to each other. It has since been well-documented that many languages use this juxtaposition strategy to express exactly the meaning of *and* (Haspelmath 2004: 4). Coordination is also found in sign languages such as American Sign Language (ASL). ASL has a coordination strategy that appears much like juxtaposition, called 'general use coordination', which can be interpreted as either conjunction or disjunction, disambiguated by non-manual markers (Davidson 2013: 39).

Second, there seem to be well known constraints that affect coordination in particular, including the Law of Coordination of Likes (Schachter 1977, Williams 1981) and the Coordinate Structure Constraint (Ross 1967), as well as certain operations like Gapping. In modern syntax following the Minimalist Program (Chomsky 1995), construction-specific constraints in the grammar are discouraged. The fact that these constraints seem unique to coordination constructions, hence their names, suggests there are elements of the grammar unique to coordination, and

coordination is special in a way that, say, verb phrases are not.

Third, coordination seems to operate at many different levels of grammatical structure (Dik 1968). Not only can coordination combine words (*John and Mary*), but it also combines phrases (*Knut is hungry and will be eating soon*), and sentences (*Natalia wrote a book about statistics and Charles wrote one about poems*) of various sizes. It is also possible to coordinate below the word level (*pre- and post-syntactic*) (Chaves 2008, 2014).

Lastly, in terms of usage, coordinate constructions occur in over 50% of sentences in written text (Sturt & Lombardo 2005: 292). Despite its prevalence in language in use, and despite the large body of work on the topic, much is still unknown about coordination and coordinating conjunctions. The class of coordinators is still not conclusively defined. Hulsey (2008) and the present work contribute to that discussion. There is ongoing work in online processing discovering the predictive properties of coordinators like *let alone* and the correlative constructions *either...or*. (Harris & Carlson 2016, Harris 2016, Harris & Rich 2017)

The starting point of my investigation is the observation that coordinators can be a site of innovation. Most of the literature on coordination and coordinating conjunctions in English focuses only on *and*, *but*, *or*, with the vast majority focusing on just *and*. It is often assumed that the conclusions drawn about *and* generalize to the rest of the coordinators, but as we will see, each of these coordinators has their idiosyncrasies and special requirements. The first example of this is *slash*, as in (1a)–(1c).

- (1) a. I am a **linguist slash musician**.
- b. I ran into one of my **family friends slash customers**
- c. What is the politically correct way to ask about someone's **race slash ethnicity**?

I heard (1a)–(1c) in spoken, casual, unscripted American English conversation, from a variety of people. It originally struck me how speakers have begun using *slash* much like a coordinator, and, as I investigated further, I built the case that it *is* a coordinator. What's remarkable is that by most estimates you could count the number of coordinators in English that have accreted in the language over the centuries on a single hand, and we are currently witnessing the birth of a new one.

The second focus is the word *and/or*. Rather than creating a new coordinator from punctuation as in the case of *slash*, speakers have combined two existing coordinators to create a single complex expression with its own meaning, distribution and behavior.

- (2) a. So, who wants to **touch and/or be touched by** a famous person?
- b. There's nowhere I won't go. As long as it's horribly, horribly **true and/or wrong**.
- c. Give your figures **titles and/or captions**.

The interesting property of *and/or* is not that it is particularly new—it is not, it has been well-attested for over a hundred years. It appears to be a complex functional word formed out of two others. It is also difficult, at first glance, to determine its exact logical specification, yet speakers have good intuitions about its use.

Throughout this dissertation, I use the terms as follows: `COORDINATION` is the name for the general phenomenon of grammatically-required parallelism; `COORDINATION COMPLEX` is a particular instance of coordination in a sentence. Complexes contain a `COORDINATOR`,¹ which are the bridging or linking words like *and* and *or*; coordinators link two `CONJUNCTS`, which can be clauses, phrases, words, or sub-word components. In other words: `COORDINATION` manifests as a `COORDINATION COMPLEX`, which consists of a `COORDINATOR` linking two `CONJUNCTS`.

1.2 *Theoretical background*

I adopt the basic assumptions of the Minimalist program as described below and developed in Chomsky (1995, 2000, 2001, 2005, 2008, 2013), among many others. The basic organization of the grammar is the following: the lexicon provides the atoms of computation to the computational system of human language (C_{HL}). C_{HL} is responsible for assembling phrase structures out of a specific subset of the *Lexicon*, called the *Numeration*, for a given derivation. Phrase structure generation, which is derivational and bottom-up, involves two basic operations, *Merge* and *Agree*. At the point of *Spell-Out* the phrase structure is transmitted to the speech and thought systems (“the interfaces”). If the systems are able to read the information provided to them, that is, the phrase structure contains only interpretable features, the derivation converges. Phrase structures are built exclusively via the basic combinatory operation, *Merge*. There are at least two subcases of the operation *Merge*, following Chomsky (2005: 12) and De Vries (2010): External Merge and

¹ Another common name for this class of words is `CONJUNCTION`. However, because *and* roughly corresponds to logical conjunction, and *or* roughly corresponds to logical disjunction, I will use the word *coordinator* wherever possible to be more general.

Internal Merge. External Merge takes a syntactic object A and combines it with syntactic object B, which is outside A. Internal Merge takes a syntactic object A and combines it with syntactic object B, which is inside B. Non-local dependences like *wh*-movement are mediated in Narrow Syntax by Internal Merge, which is typically called “Move”. These two subcases work in tandem to express different semantic components: External Merge is generally used to express argument structure, while Internal Merge is generally used to express discourse-related and scopal properties (Chomsky 2008: 8). A verb combining with a new DP, as in External Merge yields a VP. Subject movement to Spec,TP, or *wh*-movement to the left periphery, do not—and cannot—yield new argument relations. These are instances of Internal Merge. A third subcase may be Parallel Merge, where one syntactic object is merged to a subpart of another object. This results in a multidominant structure, where a node may have multiple mothers (Citko 2005). To derive a standard complementation coordination structure (take Johannessen 1998 as representative), a coordinator selects for a complement and a specifier, which requires at least two operations of External Merge: one of the coordinator and the second coordinand (complement), and then one with the first (specifier).²

The second basic operation in a Minimalist grammar is Agree. Agree is the operation where one syntactic object *checks* the features of another object. Nouns enter a derivation with fully interpretable ϕ -features (one can speak of the person, number, and gender of a noun), but generally T has uninterpretable ϕ -features (it does not make much sense to ask about the gender of

² Although, see the discussion at the end of this subsection about labeling and Chomsky (2013) for an alternative view.

a verb). Uninterpretable features, as their name would suggest, should not be transferred to the interpretative interfaces, and must be deleted. Therefore, there must be a relation Agree which deletes uninterpretable features. (Chomsky 2001: 10)

Agreement is relevant to coordination because of problems like closest conjunct agreement that appear in languages like Serbo-Croatian (Bošković 2009), Slovenian (Marušič et al. 2015), Hungarian (Kiss 2012), Arabic (al Khalaf 2015), and Hindi-Urdu (Bhatt & Walkow 2013). One Slovenian example from Marušič et al. (2015) is enough to introduce the problem.

- (3) a. Vceraj so odsla/ *odsle teleta in krave na paso.
 yesterday AUX.PL went.N.PL went.F.PL calf.N.PL and cow.F.PL on graze
 ‘Yesterday calves and cows went grazing.’
- b. Vceraj so *odsla/ odsle krave in teleta na paso.
 yesterday AUX.PL went.N.PL went.F.PL cow.F.PL and calf.N.PL on graze
 ‘Yesterday cows and calves went grazing.’ (Marušič et al. 2015: 52)

When a postverbal subject is a pair of coordinated nouns, the one linearly closest to the verb governs the form of the verb. Given the choice between neuter and feminine forms of a verb, speakers will prefer the neuter if the neuter noun *krave* ‘calves’ is first in the coordination. Speakers will

prefer the feminine if the feminine noun *teleta* ‘cows’ is first.³

Labeling is the final piece of theoretical background I will discuss. In traditional phrase-structure grammars, the label of a larger constituent is given pre-emptively. In a phrase structure rule $VP \rightarrow VDP$, a verb phrase VP is a priori defined as the object that is composed of a verb V and a determiner phrase DP. This notion, an a priori definition of what a phrase is made of, is unformalizable in a Minimalist grammar. First of all, such rules simply don’t exist in the system. Second, the only operations possible are Merge and Agree. When two objects undergo Merge, what is the label of the resulting object? The label is derivationally important for determining what category information is available for continuing operations—as I’ll return to regarding coordination—and representationally important as labels are required for interpretation at the interfaces. It must be determined somehow.

Chomsky presents a labeling algorithm (LA) (Chomsky 2013: 43), which revisits the idea of projection and the question of what kinds of objects can be the result of Merge operations. In this system, syntactic objects can merge and result in unlabeled objects, so long as they are labeled by transfer to the interfaces. In the straightforward case, if one merges two syntactic objects, one

³ The masculine plural verb form seems always to be acceptable even if there is no conjunct with masculine gender. While the main point of the example is to show that speakers do have a preference for closest conjunct agreement, the possibility for masculine means that there are additional agreement patterns beyond closest conjunct agreement. Either Agree is not absolute and allows for some fuzzy matching, or speakers are doing some feature calculus where masculine always turns out to satisfy the criteria (which might be equivalent to saying that masculine is the ‘default’ gender), or something else. For additional interesting discussion on this latter idea, feature resolution, using data from Finnish, see Dalrymple & Nikolaeva (2006).

a head H and one a phrase XP, the LA will always select H as the label, so the result of the merge will be a SO with the label of H. If you merge a V head *eat* with a DP *the quinoa*, the resulting object will be labeled as a V, putting aside its phrasal/maximal status. In a more complex case, say one merges two syntactic objects, where both are phrases XP and YP, resulting in γ . If the labeling algorithm searches within these phrases for the closest head, the heads of both of these phrases will be equidistant, so it is not possible to determine the label for γ based on minimal search alone. In this scenario, there are two solutions to the labeling problem. The first solution is to move a phrase out. If one phrase XP moves out of the structure γ , the second phrase YP is left behind and the structure γ will then have a closest head, which is the head of YP, which will then label γ as Y. The second solution is to label by feature sharing. If XP and YP are merged and create γ , and XP and YP share a feature, that feature becomes the label of γ . One example of this is indirect questions. The phrase *in which Texas city*, the head of which bears an interrogative feature Q, raises to SpecCP in the embedded clause, merging with a CP headed by C, also bearing an interrogative feature.

(4) they wondered [α in which Texas city [β C [JFK was assassinated]]]

(Chomsky 2013: 45)

What is the label of α , the result of merging two phrases? In this case, the XP and YP share the feature Q, so that becomes the label of α .

Coordination is an interesting domain in which to discuss the details of labeling algorithms. How does labeling work in coordination? Is the '&-head' a selecting element, in exactly the

same way that a V selects for its complement? Will the label of a coordination phrase really be ‘&P’? If so, how does anything select for that? Chomsky (2013: 45–46) presents an interesting solution that addresses some of these problems. Rather than assuming two instances of External Merge, we assume an underlying structure for coordination where the two conjuncts are Merged to each other first, and then to the coordinator (5a). Such a structure reflects the close semantic relationship between conjuncts Z W (as in some analyses of small clauses). The first conjunct Z then raises (5b).

- (5) a. $[_\alpha \text{ Conj } [_\beta \text{ Z W }]]$
 b. $[_\gamma \text{ Z } [_\alpha \text{ Conj } [_\beta \text{ Z W }]]]]$

Under standard labeling procedure, β will be labeled W. It is not so clear what γ will be labeled, but Chomsky suggests that Conj is never eligible to be a label, drawing a parallel to first, head-head Merge in a derivation (Chomsky 2013: 47). If the first step in a derivation is Merging a functional, category element and a lexical meaning root, the root does not qualify for being a label. In the same way, Conj does not qualify as a label and the label must be chosen from another constituent. Fortunately in coordination, both conjuncts nearly always have the same label, so (5b) will be labeled Z (or W).

The nature of the label of the coordination structure is important not only for selection purposes, but some researchers have developed analyses that operationalize the label to account for closest-conjunct agreement and the Coordinate Structure Constraint. Al Khalaf (2015) proposes a novel labeling strategy for coordination. Extending the mechanism in Dalrymple & Nikolaeva

(2006), feature union, which is used for computing feature resolution, al Khalaf extends set unions to structure building, in particular the structure building of coordinate structures in order to account for closest conjunct agreement patterns in Arabic. The labels of coordinate structures are determined as the union of the labels of the conjuncts. A feature resolution calculation based on the label-union as well as the linear order of the conjuncts determines what agreement features and syntactic category are visible. Bošković (2018) operationalizes labels to deduce part of the Coordinate Structure Constraint. Bošković argues that coordinate structures are phases (following Oshima & Kotani (2008)) and that argues that movement out of coordinate structures must proceed via the edges of all conjuncts. Movement to the edge of a conjunct “delabels” the conjunct, by projecting an additional layer of structure that lacks a label. If a *wh*-word moves out of one conjunct but not the other, this results in a derivational violation of the Law of Coordination of Likes because one unlabeled category will be coordinated with a labeled one, deducing the part of the Coordinate Structure Constraint which bans extraction out of only one conjunct.

Another possibility is that we view the order of functional categories in a given clause as a result of a functional sequence or hierarchy, rather than the result of a series of selections. Research into the ‘left periphery’ has converged on the observation that functional items like complementizer particles always appear in distinct positions, in a set order. Functional categories don’t ‘select’ the objects that come after them. Instead, the order between functional categories is enforced by the sequence. In this view, & is a functional category whose position is determined by a functional hierarchy.

This summarizes the theoretical framework I am assuming. I now turn to the various propos-

als for the structure of coordination.

1.3 Structure of coordination

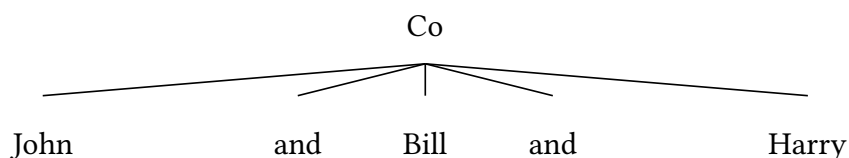
The literature on the syntax of coordination contains a large number of proposals about its structure. Proposals range from conventional Minimalist analyses that start with the assumption that, for the most part, coordination works as the rest of the grammar does, by projecting a phrase and selecting for particular arguments. The most conventional Minimalist analyses include the Coordination phrase or Boolean Phrase (Munn 1987, Johannessen 1998, Zoerner 1995). This is largely the approach I adopt for this dissertation, as it requires the simplest set of assumptions. Progovac (1998a,b) also supports the existence of a Coordination Phrase (&P) headed by a &. Alternative proposals include the Boolean Phrase as adjunction structure, where the second conjunct includes the coordinating conjunction and forms an adjunct to the first conjunct (Munn 1993, Fernandez-Salgueiro 2008, Hartmann 2001). There are proposals that focus on the symmetric and asymmetric aspects of coordination (Te Velde 2006, Weisser 2014, Camacho 2003, Oshima & Kotani 2008). Various mechanisms have been proposed that formalize the notion of coordination as ‘joining two phrase markers’ (Goodall 1987), or having phrase markers with multiple dimensions (Muadz 1991, Moltmann 1992). There are also arguments against the existence of a unique conjunction phrase ConjP (Borsley 2005). Some of the earliest proposals provide lots of empirical evidence that provided important insights (Chomsky 1957, Gleitman 1965, Dik 1968, Van Oirsouw 1987, Dougherty 1969, Dougherty 1970, Dougherty 1971, Tai 1969). There are also accounts of the properties of coordination in other syntactic frameworks such as Head-Driven Phrase Structure

Grammar (HPSG; [Sag 2003](#), [Chaves 2007](#)) and Lexical-Functional Grammar (LFG; [Peterson 2004](#)).

In this section, I distill the large empirical ground, the many structural proposals, and the key generalizations into the key points that are relevant to describe the properties of *slash* and *and/or*, focusing on two topics: the hierarchical structure of coordination and the distinction between complementation and adjunction analyses. I follow [Progovac \(1998a,b\)](#), who covers much of the same empirical ground as well as additional topics in the structure of coordination.

First, I briefly overview some of the proposals about the hierarchical structure of coordination (for additional discussion on asymmetry in coordination, see [Progovac \(1998a: 3\)](#)). The earliest proposals suggested a flat structure, all conjuncts occupying the same ‘level’, as sisters of the coordinator ([Dik 1968: 30](#)).

(6) Flat structure



This model is adopted by functional grammars ([Dik 1968](#)), which place emphasis on the fact that conjuncts play the same grammatical ‘role’ in the sentence and therefore must be at the same level. This analysis is also used to contrast *co*-ordination with *sub*-ordination. Coordination should have a flat structure because members of a coordination can be generally freely switched and the sentence will retain the same meaning.

(7) a. The boy laughed and the girl was silent.

- b. = The girl was silent and the boy laughed.

Both sentences in (7) describe the same scenario, where a boy is laughing and a girl is not making any noise. On the other hand, subordination should have a multi-level structure because members of a subordination cannot be freely switched.

- (8) a. The boy laughed because the girl was silent.
 b. ≠ The girl was silent because the boy laughed. (Dik 1968: 38)

However, this semantic argument for a flat structure does not hold in some cases, where switching the coordinands can result in sentences that do not have the same interpretations.

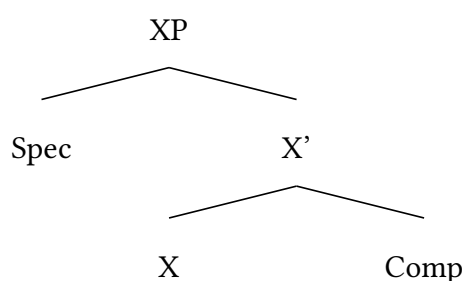
- (9) a. The lights came on and the singer stepped onto the stage.
 b. The singer stepped onto the stage and the lights came on. (Bjorkman 2013: 392)

The typical interpretation of (9a) is that the lights were activated, and *then* the singer arrived. The sequence of events is reversed when the coordinands are reversed in (9b). If a flat structure of coordination means that the reversal necessarily has the same meaning, then the flat structure cannot account for cases like (9), where switching gives another meaning. (For more discussion of this so-called asymmetric coordination, see Bjorkman (2013))

Finding a simple flat structure not explanatory, we turn toward other theories of phrase structure. Chomsky (1970) developed X-bar theory, which streamlined the growing number of phrase structure rules by providing a basic, generalized X-bar schema for every category. Instead of

containing of list of rules unique to nouns, verbs, and adjectives, each specifying what their respective phrases might look like, Chomsky proposed that all of these categories project the same type of structure, with a specifier and complement position.

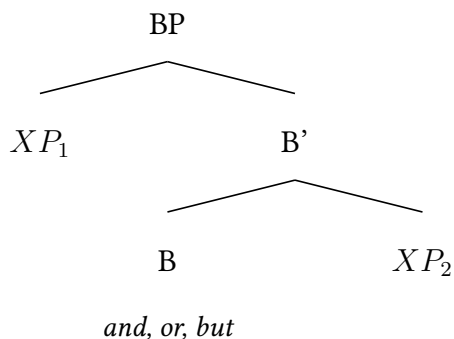
(10) X-bar structure



X-bar theory is incompatible with the flat structure of coordination in (6). Munn (1993: 12) names two problems with the flat structure in (6). In the flat structure, there is no obvious head, the coordinator does not seem to project to a maximal projection, and it is not clear what position the conjuncts occupy—specifier or complement. There is also evidence that flat structures are unformulable and that all structures must be binary branching for linearization purposes (e.g., Kayne 1994).

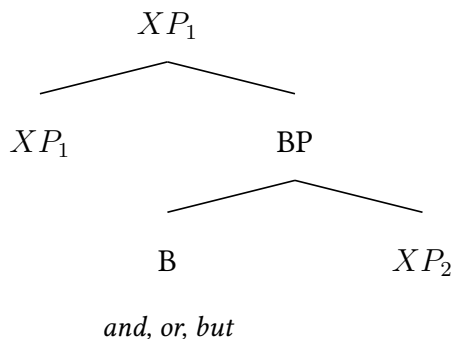
The natural move is to adapt the X-bar schema for coordination, and that is proposed in Munn (1987). Munn calls it the BOOLEAN PHRASE (BP). This is also known more generally as the complementation structure, and similar structures are proposed in Munn (1987), Johannessen (1998), and Zoerner (1995).

(11) Complementation structure from [Munn \(1987\)](#)



In later work, [Munn \(1993\)](#) proposes that the Boolean Phrase instead be analyzed as a phrase containing only the coordinator and second conjunct, which is then adjoined to the first conjunct.

(12) Adjunction structure from [Munn \(1993: 13\)](#)



The move to an asymmetrical structure has an important advantage. The conjunction now forms a constituent with the second conjunct. There are several arguments supporting the existence of this constituent. One argument comes from intonation. In English, a neutral pronunciation of the coordination in (13a) groups the conjunction with the second conjunct ([Ross 1967: 90–91](#)). It is even possible to start a new sentence with the conjunction and second conjunct, but it is not possible to group the conjunction with the first conjunct, intonationally or otherwise.

- (13) a. John left, and he didn't even say good-bye.
 b. John left. And he didn't even say good-bye.⁴
 c. *John left and. He didn't even say good-bye. (Munn 1993: 14)

Slash and *and/or* also group prosodically with the second conjunct, as shown in these attested examples. At least according to the diagnostics above, it seems that *slash* provides additional evidence that the conjunction is more closely related to the second conjunct.

- (14) (Person 1): (The class) is Brazilian.
 (Person 2): Slash hilarious.⁵

The second argument for the coordinator and second conjunct forming a constituent comes from extraposition. The coordinator and the second conjunct can be extraposed as a unit, but the first may not (Munn 1993: 15). Assuming that extraposition can only apply to constituents, this is a straightforward argument that the coordinator and second conjunct form a constituent, but the coordinator and first conjunct do not. We see examples of this same behavior in German and Iraqi (Haspelmath 2004: 8).

⁴ In this example it is interesting that the coordination starts a completely independent sentence. It would be interesting to further study these 'discourse uses' of conjunctions, if we adopt the strictest view that all coordinators head a phrase. For example the turn-initial *and*, which is used with rising intonation to prompt someone to continue their narration.

⁵ Example observed in the show "Bob's Burgers", Season 1, Episode 4 (FOX).

- (15) John bought [a book and a newspaper] yesterday.
- (16) a. John bought [a book *t*] yesterday, [and a newspaper].
 b. *John bought [*t* a newspaper] yesterday [a book and].
 c. *John bought [a book and *t*] yesterday, [a newspaper].⁶ (Munn 1993: 15)
- (17) Schröder hat mit [Fischer] telefoniert [**und** mit dem Agenten, der das Waffengeschäft aufgedeckt hat].
 ‘Schröder spoke to Fischer on the phone and to the agent who uncovered the weapons deal.’ (Haspelmath 2004: 7)
- (18) nee [masoomo] birt-ta doog-iyé’ [laqáa dasi]...
 with youth COND-REC;PERF meet-3PL:PAST or girl
 ‘If he meets a youth or a girl...’ (Haspelmath 2004: 8)

Slash and *and/or* both extrapose easily. There are readily attested examples where *slash* and the second conjunct move as a unit to the end of the sentence. This is additional evidence for a constituent containing the second conjunct and the conjunction, but not the first conjunct.

- (19) I’m so happy for you, slash jealous.
- (20) Sautéed chorizo may be added too, and/or a little chopped garlic.

I conclude that it is suitable to assume a hierarchical structure for coordination, where the second

⁶ This sentence is acceptable if *yesterday* receives parenthetical intonation, in which case, it is showing not attempted extraposition but where parentheticals can go.

conjunct is more tightly related to the coordinator.⁷ This is preferred over a flat structure, which is not only theoretically unformulable, it doesn't properly characterize the relationships of the conjuncts.

⁷ There is one additional argument for the second conjunct and coordinator forming a constituent that, interestingly, seems to be decreasingly valid in recent usage. [Zoerner \(1995\)](#) notes that the term 'etcetera' substitutes for what would be a &', or exactly the constituent formed by the conjunction and the second conjunct.

- (i) a. I bought [jam [bread [etc.]]]
 b. *I bought [jam [bread [and etc.]]] ([Zoerner 1995: 17](#))

If the facts are right, the test is interesting. But this claim is quite prescriptive in nature, and a cursory look at Google n-grams allows us to see an actual trend showing the opposite of the data claimed in [Zoerner \(1995\)](#). The use of 'etc' overall (either preceded by *and* or not) is decreasing.



The contemporary usage of the sequence *and etc* is increasing. (Note the axis scales; Queried in November 2018)



The second characteristic of the structure of coordination is the distinction between complementation and adjunction (for additional discussion on this distinction, see [Progovac \(1998b: 3\)](#)). The complementation and adjunction structures have different ways of implementing the different *linking devices*. *Linking device* refers to the nature and number of connective elements found that join conjuncts. In other words, the linking device of a particular instance of coordination in a language is the number of conjunctions relative to the number of conjuncts. One feature of *slash* and *and/or* I investigate is how they compare to the standard behavior of other connectives in English and other languages. The typical device in English is medial monosyndeton, where coordination involves a single connective for every pair of conjuncts (monosyndetic), and this connective is placed in the middle of the two conjuncts. [Stassen \(2000\)](#) presented a typological survey of 260 languages in order to determine the various strategies of NP-coordination in world

Since *and etc* seems to be on the rise, this particular test is weakened. Zoerner also offers colloquial version of the argument. Instead of *etc.*, speakers can say something like *blah, blah, blah*, which is again argued by Zoerner to replace only a '&’.

- (ii) a. I bought jam, bread, butter, blah, blah, blah.
- b. *I bought jam, bread butter, and blah, blah, blah. ([Zoerner 1995: 18](#))

In this case, *and blah, blah, blah* does seem to me fairly unacceptable, or at least more unacceptable than *and etc*. So I would argue the *blah blah blah* test is a more valid substitution test to argue for the second conjunct and coordinator forming a constituent.

languages.⁸ Monosyndeton is found all over the globe, with particular prominence among languages of Europe and Sub-Saharan Africa (Stassen 2000). Stassen provides many examples of monosyndeton, a selection of which is shown in (21)–(24).

(21) Ander eta Mikel
Ander and Mikel
'Ander and Mikel' (Basque: isolate)

(22) akoon ku miir
elephant and giraffe
'the elephant and the giraffe' (Dinka: Nilo-Saharan, Nilotic)

(23) bir ug tubig
beer and water
'beer and water' (Cebuano: Austronesian, Philippine)

(24) gaa-gi 'inda taji'
Crow and Turkey
'Crow and Turkey' (Navaho: Athabaskan), (Stassen 2000: 12)

Asyndeton, also called juxtaposition or zero-marking, is coordinate structures without any overt connectives. This strategy is also widespread, although notably absent from western Europe and African languages (Stassen 2000: 8).

(25) ngari niigar njammi jaraang
this man woman go.PST
'This man and woman went together.' (Gumbainggir: Australian, Pama-Nyungan)

⁸ Drellishak (2004) revisits the theory, providing evidence from an additional 30 languages that are argued to be more representative of different language families than Stassen's sample.

(26) intay nakut-ny-ch ?ahuut-kj iduum
 mother father good-SS be-NOTFUT
 ‘his mother and father are good’ (Mojave: Yuman)

(27) muduri tasha daham-bi
 dragon tiger follow-PRS
 ‘The dragon and the tiger follow. (Manchu: Tungusic), (Stassen 2000: 8)

There are also languages that use *polysyndeton*, which shows one conjunction per each conjunct. This strategy is fairly rare compared to the other strategies, yet is also found all over the world (Stassen 2000: 12).

(28) bayi yuri-gara bayi bargan-gara
 CL1.ABS kangaroo-and CL1.ABS wallaby-and
 ‘a kangaroo and a wallaby’ (Dyirbal: Pama-Nyungan), (Stassen 2000: 12)

Table (29) summarizes the coordination strategies discussed here.

(29) Coordination strategies, where N is number of conjuncts

Type	Pattern	Coordinators
Asyndetic	A B A B C D	0
Syndetic Monosyndetic	A & B A B C & D	1
	A & B A & B & C & D	N-1
Polysyndetic	A & B & A & B & C & D &	N

English clearly uses monosyndeton, with some qualifications. In the normal case, there is one conjunction per pair of conjuncts, whether the conjuncts are single words (30a) or coordinations

themselves (30b). Asyndeton (no conjunctions) is not a viable strategy (31) nor is polysyndeton (one conjunction for each conjunct) (32).

- (30) a. Tom and Fred
 b. [[Tom and Fred] and Harry]

(31) *Tom Fred

- (32) a. *and Tom and Fred
 b. *Tom and Fred and

Conjunctions can appear on the surface to join three or more conjuncts.

(33) Tom, Dick, Harry, and Fred (Munn 1993: 24)

In monosyndetic cases like this it is interesting to note that the meaning of *and* affects each conjuncts. It is not possible to interpret the conjuncts with other coordinators. The interpretation is not available:

(34) *Tom (or) Dick (or) Harry and Fred.

It is possible to repeat *and* between each conjunct to indicate a group of four individuals who may not necessarily be affiliated in any smaller groups.

(35) Tom and Dick and Harry and Fred

It is also possible to combine two coordinate phrases, each with two conjuncts, to express a combination of two pairs of individuals.

(36) [Tom and Dick] and [Harry and Fred]

True juxtaposition (asyndesis) is likely not an available strategy in English, but apparent juxtaposition can be achieved in poetic or similar literary prose. The interpretation is always *and*.

- (37) a. On the windowsill rested a sparrow, silent, unmoving.
 b. I woke up in the morning and found myself a wreck, a disaster, a failure.
 c. *I did not know whether to consider her a lover, a fighter. [*or* is unavailable]

Disjunction, expressed by *or*, behaves similarly. It is monosyndetic, and recurses.

- (38) a. Tom, Dick, Harry, or Fred
 b. Tom or Dick or Harry or Fred
 c. [Tom or Dick] or [Harry or Fred]

The coordinator *but*, does not behave like *and* or *or*. It is indeed monosyndetic, occurring once between a pair of conjuncts. *But* has at least three use cases, with unique semantic restrictions—counterexpectational, corrective, semantic opposition (Toosarvandani 2014: 5)—and because of these limited uses it often cannot recurse (39b). Unlike *and* and *or*, it is not possible to delete all but the last instance of *but* as in (39c).

- (39) a. The player is tall, but agile.
 b. *The player is tall, but agile, but strong.
 c. *The player is tall, agile, but strong. (Intended: tall, but agile, but strong)

Slash has an exceptional pattern. It exhibits obligatory monosyndeton—one instance of *slash* between every pair of conjuncts—as in (40c). While it is possible to delete all but the last instance of *and* as in (40a), it is never possible to completely delete *slash* as in (40b).

- (40) a. a bartender slash ski instructor slash babysitter slash lecturer
 b. *a bartender, ski instructor, babysitter, slash lecturer
 c. a bartender slash ski instructor slash babysitter slash lecturer

And/or behaves more like *and* and *or*. It is possible to repeat *and/or* for each pair of conjuncts, and it is possible to delete all but the last. And just like the others, when only the final conjunction is retained (41a) the interpretation of the other ‘silent’ conjunctions is the same as the final one (41b).

- (41) a. chorizo, beans, and/or rice
 b. chorizo and/or beans and/or rice

I would argue that the underlying coordinator in (41a) is *and/or* and not something like *and*, as in (42).

(42) ?chorizo and beans and/or rice

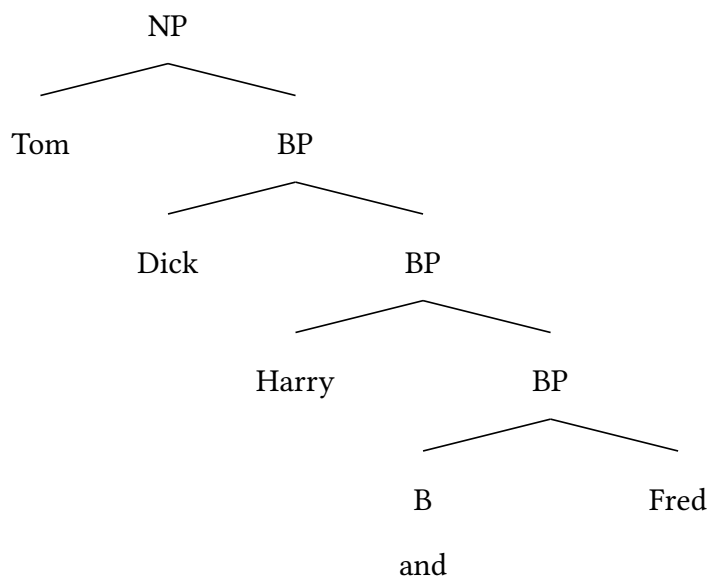
This might be a surprising claim, since the unexpressed coordinator *and/or* in (41b) in some sense includes the string ‘*and*’ as in (42). But *and* is more restrictive than *and/or* and doesn’t admit ambivalence: a request for *chorizo and beans* requires both ingredients to be satisfied. I would argue that someone asking for a burrito containing *chorizo, beans, and/or rice*, is expressing their ambivalence over what specific combination of the ingredients goes into the burrito, and they should be satisfied if they were to receive a burrito containing any mix of the three ingredients, as long as it contains at least one, including just beans. If we were in a world where the unexpressed coordinator were *and*, a person requesting a burrito containing *chorizo, beans, and/or rice* would not be satisfied just receiving beans because that would not be a logical possibility—which I suspect is not the case. By this argument, the underlying unexpressed coordinator could neither be *or*, as in (43)

(43) ?chorizo or beans and/or rice

Someone requesting a burrito containing *chorizo, beans, and/or rice* is still ambivalent about the combination and may accept a burrito containing all three ingredients. This interpretation is not possible if the unexpressed coordinator was *or* as in (43).

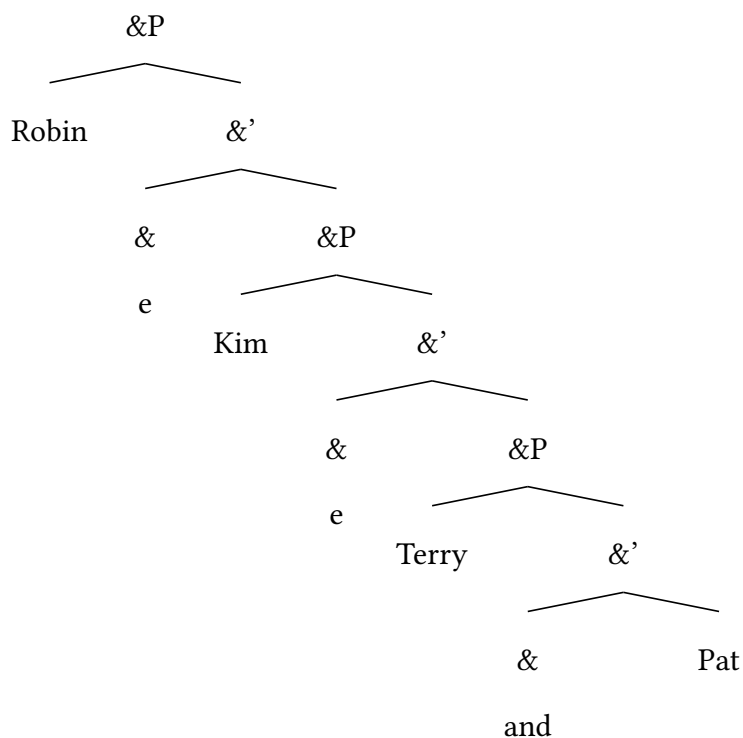
The analysis of the structure of coordination should be able to admit these different possibilities for all coordinators. Munn (1993) says that “there is no reason to assume iterative conjunction cannot be accounted for simply by adjoining to the BP”, as in (44).

(44) Adjunction structure from (Munn 1993: 24)



For Munn, this is a natural extension of the adjunct BP analysis, where the additional conjuncts are left-adjoined to the BP. This adjunction strategy accounts for cases where there are more than two conjuncts, as long as there is just a single conjunction. However, a generalized structure for coordination must also account for phrases with multiple conjunctions. Zoerner (1995: 26) provides a structure that does just that, which keeps the complementation structure. Under the complementation analysis, additional conjuncts are additional &P's, each headed by null & heads.

(45) Four-termed coordination



Under Zoener's analysis, the *and* moves through each of the higher & heads. This both allows and enforces the identical interpretation of the coordinator for each of the conjuncts. Each of the unpronounced conjunctions must be interpreted the same way as the final conjunct; in this case it is *and*.

Zoener's analysis provides an alternative structure that allows for true multiple-termed conjunction, which isn't simply recursion of a binary structure. For example, the sequence in (46) has at least two interpretations.

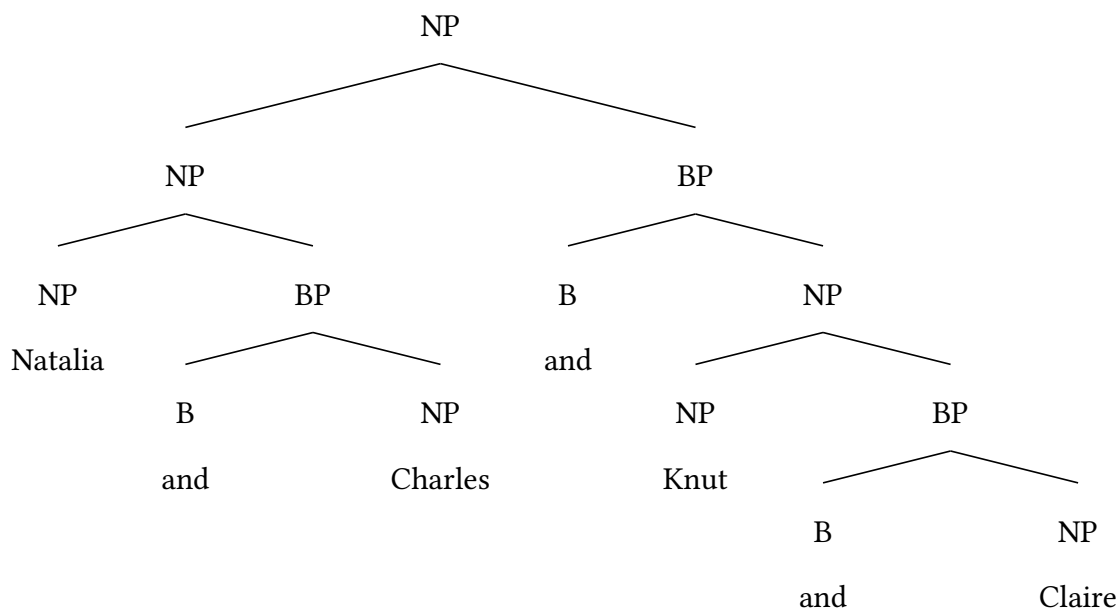
(46) Natalia and Charles and Knut and Claire met.

On one interpretation (47a), Natalia and Charles might be a team, and Knut and Claire might be another team, and these two teams meet. In the second interpretation (47b), Natalia, Charles, Knut, and Claire are independent people who perhaps previously did not know each other, but now met each other. These two meanings are represented with the following bracketings.

- (47) a. [Natalia and Charles] and [Knut and Claire] met.
b. [Natalia and Charles and Knut and Claire] met.

The first interpretation (47a) is able to be captured with either the adjunct or complementation analysis. Both of these structures are able to coordinate two conjuncts, and then join the two into a larger coordinate structure. Under the adjunction structure analysis, the second individual in each team is adjoined as a Boolean Phrase to the first individual in each team. The second team NP is then adjoined to the first team NP. The adjunction structure of (47a) is shown in (48).

(48) Adjunction structure of the interpretation of two teams of two people (47a)



The second interpretation (47b) is true multiple-termed conjunction, where we truly have four conjuncts, where no conjunct is grouped together internally with another one. This is easily represented with a structure like (45), if *and* is pronounced in each &-head. Under this interpretation and structure, “Natalia and Charles” do not, and should not, form a constituent, and are not interpreted as a separate unit. Munn’s adjunction structure does not explicitly allow the individuated interpretation in (47b), the only example he gives of coordination with more than two conjuncts is given in (44). These are the basic considerations taken into account when determining the structure of coordination.

1.4 A constraint on coordination

Another aspect of coordination that must be addressed is the set of constraints proposed to be unique to coordination. Just as one example, I present the Coordination of Likes Constraint. The

observation that conjoined constituents must be of the same type goes back at least to Chomsky (1957: 35–7). Chomsky noted that there was a difference in acceptability in coordinating two elements that were the same, as in (49a), which shows coordination of two PPs. In (49b) acceptability is degraded. Even though *of the movie* and *that I wrote* are separately legitimate phrases, a PP cannot be coordinated with a relative clause, because they are not ‘of the same type’.

- (49) a. The scene [of the movie] and [of the play] was in Chicago.
 b. *The scene [of the movie] and [that I wrote] was in Chicago.

Likewise, the coordination of two adverbs is grammatical (50a), while an adverb and an DP is not (50b).

- (50) a. John ate quickly and greedily. (Schachter 1977: 87)
 b. *John ate quickly and a grilled cheese sandwich. (Schachter 1977: 87)

In Chomsky’s original statement it isn’t clear exactly what “same type” means. Schachter (1977) showed that merely requiring syntactic category to be identical is not enough. Schachter (1977) proposed that both syntactic properties and semantic properties must be identical.

- (51) *John ate with [his mother] and [good appetite].

In (51) both of the coordinands are the same category DP, but have different functions: *his mother* is a companion and playing a comitative role, while *good appetite* is a kind of adverbial manner

modifier. Therefore coordinands must have the same category and semantic function.

There are apparent counterexamples, where coordinands appear to have different syntactic categories.

(52) John ate quickly and with good appetite.

(53) Terry turned out to be [longwinded] and [a bully] (Sag et al. 1985: 141)

Problems of this type can be solved by assuming an extra level of structure. Schachter proposes analyzing (52) as containing *with good appetite* which is a PP within an AdverbP, while *quickly* is also an AdverbP, so that we are actually coordinating two AdverbPs. The two coordinands certainly have the same semantic function and are doing the same modification of manner modification, so it is reasonable to treat the two as the same syntactic category here. A similar strategy is used in Sag et al. (1985) for the analysis of (53). The phrases *longwinded* and *a bully* share a [+PRD] predicate feature, and it is possible to coordinate two things as long as they share such a feature. Bowers (1993: 595) also proposed a Predication phrase (PrP), where subjects of predicates would be base-generated in Spec,PrP. Predication phrases can be conjoined in order to derive sentences that otherwise look like they are conjoining different lexical categories. The sentence (54b) looks on the surface to be conjoining an adjective phrase and a determiner phrase which would violate the Law of Coordination of Likes. Under the PrP analysis, each predicate forms a PrP, the subject of both predicates *John* base-generates in Spec of both PrPs, then ATB-moves out of both PrPs.

- (54) a. I consider John crazy and a fool.
 b. I consider John_j [_{PrP} [_{PrP} t_j e crazy] and [_{PrP} t_j e a fool]]

Evidence that the phrases have a predicate specification comes from the fact the phrases must be coordinated in predicate position as in (53), and cannot be coordinated attributively as in (55).

- (55) *The longwinded and a bully man was my brother.

Furthermore, we even find examples where coordinands merely being the same syntactic category is not sufficient to license grammaticality. In (56), coordinands *running* and *to overeat* are both verbal elements, and it is plausible to entertain their being some kind of verb phrase. Yet, (56) is degraded, despite the coordinands being similar syntactic category. Same for (57): both *for John to be busy* and *that Helen is idle now* are full clausal complements with complementizers.

- (56) *Running and to overeat may be unhealthy.

- (57) *It's odd for John to be busy and that Helen is idle now.

There must be a different kind of constraint ruling these out, as for all syntactic reasons the coordinands are exactly parallel.

- (58) *What are you doing and shut the door. (Gleitman 1965: 263)

- (59) *John ate with his mother and with good appetite.

(60) *John probably and unwillingly went to bed.

These all coordinate the same category. But Schacter observes the coordinands seem to differ in “semantic function”, ruling them out.

There are other ways to deal with semantic equality. [Lang \(1984\)](#) proposes that coordinated elements should have a *common integrator*: there must be an umbrella conceptual space that the two elements can be combined within. This is another perspective to look at the bizarre result of combining two unrelated sentences: there is no common integrator for the two sentences so the complex is judged to be odd.

(61) ??The youngsters went off to a dance and the equator is equidistant from the two poles.

([Lohmann 2014](#): 10)

(62) ?My mum went to the mall and carpenters fix stairs. ([Lohmann 2014](#): 10)

This leads [Schachter](#) to state the constraint:

(63) THE COORDINATE CONSTITUENT CONSTRAINT (CCC). The constituents of a coordinate construction must belong to the same syntactic category and have the same semantic function.

There are also some apparent exceptions that [Schachter](#) notes, which tend to be slightly idiomatic.

(64) a. John up and left.

b. Come any closer and I'll scream. ([Schachter 1977](#): 93)

He notes that *up and* is likely a kind of idiom in English, and the second *and* is more like a conditional, and not the *and* that is subject to the CCC. These are discussed in more detail by Lakoff (1986) and Weisser (2014). As I show in Chapters 2 and 3, both *slash* and *and/or* are subject to the Law of Coordination of Likes and the Coordinate Structure Constraint.

1.5 Research questions

On encountering *slash* and diving deeper into *and/or*, I was driven by a number of questions about the nature of these coordinators and how they work. What is their behavior, and how do speakers use them? I have distilled these questions down to four central research questions:

RQ1. What is the syntactic behavior of these coordinators? What is their syntactic category and how do they combine with other objects? What makes *slash* different from coordinative compounds (also known as *co-compounds*, or hyphenated compounds; as in *bartender-psychologist* (Olsen 2007: 87)), *dvandva* (a particular type of compound found in Sanskrit and typically translated with *and*; as in *ahoratra* ‘day and night’ (Bauer 2008: 2)), Latin *cum* in English compounds (as in *grave-cum-shrine*, *lover-cum-husband* (Renner 2013: 62)), or any other number of similar morphological strategies for combining the meanings of words? Where does *and/or* fit in the grammar and how does it interact with other words?

The results of these investigations provide evidence for a certain syntactic structure for coordination. The structure of coordination must allow for the insertion of these coordinators. I show that Coordination-specific constraints (Law of Coordination of Likes, Coordinate Structure Constraint) can be defined over the general Coordination Phrase (CoP), which means that we need

not propose additional functional layers or syntactic structure to account for the distribution of *slash* and *and/or*. The constraints on these coordinators are shown to be partly extra-syntactic, with elements coming from semantic constraints on interpretation or pragmatic constraints on use. This must take into account work like [Zhang \(2010\)](#), which argues there is no special structure, constraint, operation, or category for coordination. These questions are discussed at length for both *slash* and *and/or* in Chapters 2 and 3.

RQ2. What is the meaning of these coordinators? In addition to the informal description above of the meaning of *slash* and *and/or*. I explore their semantic and pragmatic requirements. There has been much work on determining the exact semantic specifications for *and*, *but* and *or* (see [Gazdar \(1980\)](#), [Partee & Rooth \(1983\)](#), [Lang \(1984\)](#), [Krifka \(1990\)](#), [Winter \(2001\)](#), [Schein \(2017\)](#)). *And* is polysemous, especially when compared to restricted coordinators of other languages. Therefore, any denotation of *and* must be either underspecified or general enough to be compatible with all use cases, or have multiple specific denotations whose implementations are constrained by syntax. Not to mention coordination interacts in complex ways with distributive predicates, negation, and quantifiers. These questions are discussed in Chapters 2 and 3.

In addition to all of these issues above, it is possible to construct a semantic typology of connectives based on [Malchukov \(2004\)](#). Malchukov presents a semantic map for coordinating connectives, which maps the connectives of natural language to semantic categories, which include comitative, disjunctive, and concessive meanings. Using data from English and Russian, Malchukov claims each connective covers a particular, contiguous segment of semantic categories on this map. I include discussion of where these coordinators fit on this semantic map of

coordinating connectives in Chapter 3.

RQ3. Why these coordinators, and not other ones? Functional categories in general are considered closed classes, closed off to innovating new forms easily (Muysken 2008). Coordinators are considered a ‘very’ closed, and very small, class (Zoerner 1995: 20). How is it possible, despite these characterizations, to innovate a new coordinator? What was the path these words took to integrate into the grammar? Mithun (1988) and Heine & Kuteva (2002) outline the traditional ‘paths of grammaticalization’ that trace the history of coordinators in English. Coordinators typically come from *with*-type adpositions or other comitative particles. There are examples of coordinators coming from nouns, verbs, and other categories. *Slash* appears to have traced a new path into the grammar, from punctuation in the written language. What conditions allowed *slash* but not *hyphen* to enter the grammar in this way? I discuss this in Chapter 2. *And/or*, as well, is the unexpected result of orthographic concatenation. But why not *but/or*? I discuss this in detail in Chapter 3, and conclude that these items represent new paths into the functional lexicon.

RQ4. How and why do speakers use these coordinators? In Chapter 4, I present acceptability-judgment experiment results that demonstrate the constraints on *slash* proposed in Chapter 2 are robust, systematic, and they explain the data. I present corpus analyses showing that the distribution of *slash* show systematic usage, and present analyses of use in two balanced corpora to demonstrate contemporary usage.

Although these were the main guiding questions, I hope to have raised and answered many more along the way.

1.6 Outline of the dissertation

In Chapters 2 and 3, I analyze and discuss the syntactic and semantic properties of coordinators *slash* and *and/or*. I present the first in-depth exploration of the properties of these NEOLOGISTIC COORDINATORS. The term *neologistic* is intended to highlight that the literature has discussed these coordinators hardly at all. I present the arguments that these words are indeed coordinators.

Slash is the focus of Chapter 2. I show that *slash* is a coordinator by conventional diagnostics, and I present its distribution and behavior. I propose a semantics and syntactic structure for it. I discuss its origin as punctuation and path into the grammar.

I discuss *and/or* in Chapter 3, by focusing on its distribution and behavior, and its origin as the union of *and* and *or*. I include a discussion of the Finnish *ja/tai*, the equivalent of *and/or*, and what it tells us about agreement.

In Chapter 4 I provide experimental support for the ideas set out in Chapters 2 and 3. For theoretical syntacticians, the native speaker judgment is a powerful tool. The conventional understanding of the term EXPERIMENTAL SYNTAX is the same kind of judgment-collecting, but from larger numbers of people. Wayne Cowart's 1997 book *Experimental Syntax* is a good introduction to the topic: why should theoreticians concern themselves with collecting judgments, rather than introspection? In a sense, every time a linguist asks for a judgment, either of another person or introspectively, he is conducting an experiment on a single person (Arunachalam 2013: 228). It will be useful to collect systematic judgments on a larger-scale for the first time for both of these coordinators, to reinforce the acceptability patterns based on the author's intuition. In Chapter 4,

I present experimental evidence showing speakers' systematic and consistent judgments of *slash*. I present the results of a corpus study showing the patterns of distribution of *slash* in two balanced corpora. Using these experiments, I explore the semantic restrictions and preferences of speakers using *slash*, and present judgment studies reinforcing the theory set out in Chapter 2, which constrains the possible categories and meanings of *slash*. We discover a surprising semantic constraint of *homoreferentiality* operating on *slash* that influences how acceptable speakers find *slash* when it co-occurs with different syntactic categories and semantic classes.

Chapter 2

SLASH: SYNTAX, SEMANTICS, AND HISTORY

2.1 Introduction

In this chapter I focus on the observation that speakers have innovated the use of the word *slash* as a coordinator, as shown in the following examples.¹

- (1) Orange County cities are blocking projects because of **NIMBYism slash selfishness**.²
- (2) she was also my **receptionist slash research assistant** who was darned near becoming a fantastic skiptracer.³
- (3) He's a part-time **bartender slash ski instructor slash mountain guide**.⁴

The object of study in this chapter is what I call the EFFABLE SLASH, which is defined as follows: in spoken English, it is the word pronounced *slash*; in written English, it is represented as a

¹ This chapter has been previously published in condensed form as Woo (2017a), and appears here with the permission of the *English Language and Linguistics* editor, Bernd Kortmann. The material is revised and expanded here.

² COCA: 2015 NEWS OrangeCR

³ COCA: 2014 FIC Bk:SeventhGraveNo

⁴ COCA: 2013 FIC Bk:MountainBetween

word spelled out *slash*. I am differentiating this from similar devices, like the orthographic slash \langle/\rangle . I am also separating this from instances where a written orthographic slash is not actually pronounced *slash*, such as in *m/hr* ('miles per hour') or *he/she* (usually⁵ read as 'he or she') or *washer/dryer* (usually read as 'washer dryer').⁶ By analyzing data from spoken and written speech in formal and informal domains, I argue that this word *slash* exhibits all the properties that are expected of coordinating conjunctions and so is best categorized as one. This provides a new empirical domain to test theories about the syntax and semantics of coordinators. The identification of *slash* as a coordinator is unexpected since the category of coordinators is a functional category and expected to be a closed class category.

I proceed as follows. In Section 2.2, I discuss its meaning. I show *slash* in use in a variety of contexts, and I demonstrate that *slash* is a productive syntactic coordinator that differs in distribution and meaning from other linkers in English grammar like the hyphen $\langle-\rangle$ in noun-noun compounds (*singer-songwriter*), the Latin *cum* (*house-cum-office*), and others. This addresses my overall Research Question 2, *What is the meaning of these coordinators?* In Section 2.3 I address the question of what category *slash* is. I discuss its categorial properties and present an array of tests that show that it is a coordinator. In Section 2.4 I examine its syntactic behavior in finer detail, compared to other coordinators, and discuss its implications for a general theory

⁵ In my experience of SAE. I am not ruling out other possibilities for reading this combination aloud in other communities of practice.

⁶ There is also something to be said about the subject of Chapter 3, *and/or*. It doesn't seem possible to pronounce it as *and slash or*, because this is not a true effable *slash*. The combination of *and/or* does not have the semantic requirements of effable *slash*, namely *and/or* does not mean the "intersection of *and* and *or*".

of the structure of coordination. This section advances several answers to my overall Research Question 1, *What is the syntactic behavior of these coordinators?* In Section 2.5, I propose a path of lexicalization that *slash* took. This forms an answer to my overall Research Question 3, *Why these coordinators, and not other ones?* Section 2.6 presents future research directions and Section 2.7 concludes the chapter.

The source of each data point is indicated in footnotes. Many examples were obtained from a search in the Corpus of Contemporary American English (COCA, Davies 2008).⁷ Examples without footnotes are observations of natural speech.

2.2 ‘*Slash*’ and its meaning

Slash appears in hundreds of examples in COCA in spoken and written modalities, formal and informal contexts, and published works and broadcast media. I present here a wide selection of examples demonstrating its diverse and widespread usage. In all the examples (4)-(31), *slash* and its associated constituents are highlighted by a bold font.

Examples (4)-(24) were instances I have personally heard or seen. The examples of *slash* I observed showed a wide range of novelty and flexibility. These examples all occurred in natural speech, with no prompting or priming. I did not record speaker metadata, and therefore cannot begin to suggest generalizations of people who tended to use this, but the sources range from native and non-native speakers of English I talked to while exploring Seattle, coworkers in Cam-

⁷ Examples from COCA were retrieved in September 2016.

bridge, and several come from YouTube videos, TV shows, radio segments, or podcasts.⁸ In cases where I observed the listener as well, the use of *slash* never caused any hesitation or interruption from listener (or derision, which is sometimes the reaction to forced neologisms), and ensuing conversation suggested that it was understood, at least as some sort of linking device. It might appear that *slash* is so widely used it is practically unconstrained, but this is not the case, as I show in the following section.

- (4) I ran into one of my **family friends slash customers** at the Bartell's on R_____.
- (5) I invited **my sister slash anyone else who wants to come**.
- (6) My **cats slash best friends** sauntered in.
- (7) My friend was doing a **Ph.D. slash career change**.
- (8) I'm **rapper slash actress** Queen Latifah.⁹
- (9) We got your notebook back from your **best friend slash enemy**.¹⁰
- (10) Franz is a **free messaging app slash former Emperor of Austria** and combines chat

⁸ A related area of study would be to explore the speaker populations who *don't* use this, or *don't* understand it in the conventional usage. It is easy to anecdotally observe who uses it and suppose the listener understands it in the particular way the speaker intends. But suppose there was a listener for whom *slash* really made no sense, or was not interpreted in the same way? What might that say about acquiring such a coordinator?

⁹ TV Show *Bob's Burgers*. Season 2, Episode 11. "Halloween".

¹⁰ TV Show *Bob's Burgers*. Season 2, Episode 8. "Bad Tina".

and messaging services into one application.

- (11) Egli declined **politely slash embarrassedly**.
- (12) *Of Mice and Men* is a good example of a **play slash novelette**.
- (13) Louis just shot his HBO special... which is, uh, I'm very very **happy for you slash jealous**.¹¹
- (14) This weekend I'm reflecting on how fortunate I was to have grown up in a place where one of my best friends in high school was a gay, Thai, male cheerleader and my **neighbor slash faux big brother** was a die hard conservative.
- (15) What is the politically correct way to ask about someone's **race slash ethnicity**?
- (16) we have to **work on design slash plan that blitz**
- (17) we have **the get_content script slash whatever it's gonna be**
- (18) this depends on **the organization's timetable slash whether Brian cares about it right now**
- (19) it's going to be done on **5/30 slash 11/30** (pronounced: may thirtieth slash november thirtieth, intended to mean that something is due on the former date but will probably be actually completed the latter)
- (20) and then I'll chat you **late wednesday slash early thursday**

¹¹ Radio talkshow *Opie and Anthony*. Episode #2. "Uncle Willy's Pickles".

- (21) that's **exciting**. (Pause.) **Slash terrifying**.
- (22) it's a full apple **pie slash tart**
- (23) there's gonna be a **handoff slash transition** to other people who are gonna do that work
- (24) my question is: **when would you need it by, slash when would it be useless**

Examples in (25)-(31) are examples from the Corpus of Contemporary American English (COCA; Davies (2008)) and are all recorded examples of speech. This is a different source of data from the previous section, where I just listed down examples from my everyday life and various media I would encounter. COCA is a curated set of English text from a wide variety of sources. Many are transcriptions of recorded speech, usually scripted or semi-scripted. Some data comes from published books or magazines, or scholarly articles. When I searched COCA I did not limit by medium or genre. Most of the examples of *slash* I found come from transcriptions of news broadcasts or interviews, which is generally semi-scripted, formal language, vastly different than the spontaneous, informal language from my own observations. Yet, there were many examples of *slash* being used as fluidly as ever.

- (25) Drew and I have shared **clients slash patients** countless times and there is kind of a tug-of-war.¹²
- (26) PALIN: I think it's funny that the **cocktail circuit slash circuit** gives me a hard time for

¹² COCA: 2014 SPOK CNN

eating elk and moose.¹³

(27) the thing that has fueled me more than anything in my career is being a **Canadian slash British actor**¹⁴

(28) we're going to get an exclusive look inside the small box off which **magician slash contortionist slash performance artist** David Blaine is going to step tomorrow for 44 days.¹⁵

(29) I'm going to, for, for my money, for my **entertainment slash education** dollar, I'm probably going to spend a little bit more time writing¹⁶

(30) This is the **kitchen slash washroom**.¹⁷

(31) CHRIS-CUOMO-1-ABC: (Off-camera) I hear that a 20-something-year-old is having some kind of **friendship, slash, sexual relationship** with another man, what do I think?¹⁸

I describe the meaning of *slash* by comparing it with three other existing connective elements: the coordinator *and*, the Latin linker *cum*, and the orthographic *slash*.

¹³ COCA: 2012 SPOK Fox_OReilly

¹⁴ COCA: 2006 SPOK CBS_Morning

¹⁵ COCA: 2003 SPOK ABC_GMA

¹⁶ COCA: 1997 SPOK NPR_Sunday

¹⁷ COCA: 2007 SPOK ABC_20/20

¹⁸ COCA: 2010 (100521) THE MAN WHO HAD ENOUGH; MURDER ROCKS SMALL CALIFORNIA TOWN SPOK: ABC_20/20

2.2.1 ‘Slash’ vs. ‘and’

One use of *slash* is similar to the intersective use of *and*. The coordinator *and*, when coordinating two nouns, is sometimes ambiguous between an INTERSECTIVE reading and a COLLECTIVE reading (Bergmann 1982, who brings this fact up in response to Gazdar 1980; see also Heycock & Zamparelli 2005, Champollion 2016). The intersective reading of *and*, seen in (32), is the one talking about “a person in the intersection of the sets denoted by the predicates *liar* and *cheat*” (Champollion 2016: 561).

(32) Intersective *and* = denotes one individual

a. That liar and cheat cannot be trusted. (Champollion 2016: 561)

b. My friend and colleague always sang too loudly.

(Heycock & Zamparelli 2005: 161)

The collective reading, seen in (33), is the one talking about “a collective entity” formed from the individuals specified in the conjuncts, either a *farmer* and an *X-ray technician* in (33a) or a *mother* and a *father* as in (33b) (Champollion 2016: 561).¹⁹

(33) Collective *and* = denotes multiple individuals

¹⁹ In this dissertation I continue to use Champollion’s (2016) terms *intersective* and *collective* with these definitions, acknowledging that they may have different definitions elsewhere in the literature. Other researchers even use different terms for the same bifurcation. Heycock & Zamparelli’s (2005) discussion uses the terms split reading (Champollion’s ‘intersective’), and joint reading (Champollion’s ‘collective’).

- a. The farmer and X-ray technician both claimed the right to asylum.
- b. My mom and dad were always shouting at each other.

(Heycock & Zamparelli 2005: 161)

Slash has only an intersective meaning, and can denote only one and the same individual.

(34) Intersective *slash* = denotes one individual

- a. That liar slash cheat cannot be trusted.
- b. My friend slash colleague always sang too loudly.

(35) Collective *slash* = denotes multiple individuals

- a. *The farmer slash X-ray technician both claimed the right to asylum.
- b. *My mom slash dad were always shouting at each other.²⁰

Many observed examples of *slash*, in both corpora and media, denote only a single individual, supporting the claim that *slash* is intersective.

(36) When a mysterious cowboy slash Santa says, ‘Come with me’, you climb on that horse and ride.²¹

²⁰ The construction *mom slash dad* is unacceptable if it intends to refer to two separate individuals. I speculate that it may be possible in some communities to refer to a single person who fulfills two parental capacities, or perhaps a transgender parent, as a *mom slash dad*, but I do not have the present data to assert its acceptability.

²¹ Bob’s Burgers. Season 5, Episode 6

(37) This is more an extended jingle jam slash demo reel.²²

(38) This is the kitchen slash washroom.

Another illustration of the same contrast comes from quantifiers.²³ The sentence in (39), with *and* is ambiguous between two meanings: either we are concerned with individuals who are both linguists and philosophers—the intersective reading (39a), or we are picking out people who are linguists and also people who are philosophers—the collective reading (39b).

(39) Every linguist and philosopher knows the Gödel Theorem. (Winter 1998: Ch.8)

- a. Everyone who is both a linguist and a philosopher knows the Gödel Theorem.
- b. Every linguist knows the Gödel Theorem, and every philosopher knows the Gödel Theorem.

This perfectly ordinary ambiguity vanishes when the coordinator is instead *slash* (40). The only reading is the intersective one picking out people who are both linguists and philosophers (40a), while the collective reading is impossible (40b).

(40) Every linguist slash philosopher knows the Gödel Theorem.

- a. Everyone who is both a linguist and a philosopher knows the Gödel Theorem.
- b. #Every linguist knows the Gödel Theorem, and every philosopher knows the Gödel

²² Bob's Burgers. Season 3, Episode 8.

²³ Thanks to Toshiyuki Ogihara for pointing this example out.

Theorem.²⁴

When the different coordinators are used to join predicates, the possible referents of the subject change as well. With *and*, both sentences (41a) and (41b) are true since *a neoliberal technocrat* can refer to more than one person. Coordinating the predicate with *and* does not put any so-called 'restriction' on the possible referents of the subject. There are two predicates; so too may there be two (different) referents.

- (41) a. A neoliberal technocrat governs Britain and presides in France. (Schein 2017: 261)
- b. A Russian composed the most famous piano concerto and wrote the best novel of all time. (Schein 2017: 261)

In (41b), the sentence is intended to refer to two distinct individuals in the real world. The most famous piano concerto, Piano Concerto No. 1 in B-flat major, is written by a Russian, Pyotr Tchaikovsky. The best novel of all time, *War and Peace*, is also written by a Russian, Leo Tol-

²⁴ The interpretations still contain the coordinator *and* because the interpretations are spelling out the meta-semantic language, which doesn't change between the *and* and *slash* examples. The (a) intersective interpretations are equivalent between the *and* and *slash* examples, and the (b) examples are in fact spelling out the logical operator (&) between two propositions, which is best expressed as *and*. Besides, **Every linguist knows the Gödel Theorem slash every philosopher knows the Gödel Theorem* is likely unacceptable, and probably would mean something totally different than we intend.

stoy.²⁵ The sentence (41b) is true in this world, because *and* does not enforce homoreferentiality and the subject may refer to an individual separate for each predicate.

In (41a), *a neoliberal technocrat* must pick out a single person. In Section 3, I show more examples where *slash* readily coordinates VP, so VP slash-coordination does not seem to be syntactically ruled out.

- (42) a. A neoliberal technocrat governs Britain slash presides in France.
 b. A Russian composed the most famous piano concerto slash wrote the best novel of all time.

Similarly, (42b) can only mean that there was a single person, one mythical Russian, who both composed the famous concerto and wrote the best novel. The interpretation of (41b), where the two predicates are verified by two different individuals, Tchaikovsky and Tolstoy separately, is unavailable.

Schein analyzes (41a) as coordination of two clauses, where the subject of the second conjunct (*a neoliberal technocrat*) is elided. Therefore, it can be ‘reconstructed’ in the second conjunct and be interpreted as a separate person. If this analysis is correct, it explains why in (42a) and in (42b) with *slash* you cannot get the reading of multiple people. I show in Section 3 that *slash* does not allow clause-level coordination, in which case it must be coordinating something smaller than a clause, like a verb phrase (VP). Even assuming the *vP*-internal subject hypothesis, a VP does not

²⁵ Other contenders for the most famous concerto are Rachmaninoff’s Piano Concerto No. 2, for the best novel Dostoevsky’s *Crime and Punishment*. Regardless, the sentence remains true.

have a position for the subject, so there is nothing to reconstruct.

The term ‘intersective’ is used from here on only to contrast against the collective sense. *And* has both collective and intersective meanings, but *slash* has only the intersective one. This is not to say that ‘intersective’ exhaustively describes the meaning of *slash*. We will see in later discussion about its syntactic behavior, *slash* can also coordinate categories like A (43) and VP (44).

(43) I’m very, very **happy for you slash jealous**.

(44) I am **working at home slash conducting meetings** all day.

It’s not immediately clear what the ‘intersective’ meaning would mean for these phrases, since (using [Champollion](#)’s terms) there is no ‘person in the intersection of the sets’: we are dealing with modifiers, or descriptions, and events. There are no people at all. The term ‘homoreferential’ may be more accurate in describing the meaning of *slash*.

[Renner \(2008\)](#) uses the useful term ‘homoreferentiality’, to describe English compounds, where entities are formed by the fusion of the denotata of the compounding elements, giving either ‘multifunctional’ or ‘hybrid’ meanings ([Renner 2008](#): 609). A multifunctional compound is something like *hunter-gatherer*, where the person in question is both a hunter and a gatherer; the person is not ‘midway between’ a hunter and a gatherer. A hybrid compound is something like *poly-cotton*, which is a mixture of polyester and cotton; the material is not itself a type of *polyester* nor a type of *cotton* (**polycotton is polyester, *polycotton is cotton* ([Renner 2008](#): 609). These two sub-meanings

of homoreferential compounds can be paraphrased in (45).

- (45) a. Multifunctional: an X.Y is an X who/which is also a Y
- b. Hybridity: an X.Y is about midway between an X and a Y, OR
an X.Y is a mixture of an X and a Y

These are the exact meanings we see in *slash*-coordination. A *linguist slash musician* is a multifunctional coordination indicating a person who is a *linguist* and also a *musician*. The VP *working at home slash conducting meetings* is a multifunctional coordination indicating an event where someone is *working at home* and also *conducting meetings*, with the suggestion that these are happening at the same time. With adjectives, the person is in an emotional state that can be described as both *happy* and *jealous*, or, invoking the hybridity meaning, can be a complex mixture of happiness and jealousy.²⁶ Homoreferentiality, as the umbrella term for these two meanings, is an essential property of *slash*-coordination.

It does not seem straightforward to identify a correlation between the semantic requirements of *slash* and its syntactic structure.²⁷ *Slash*-coordination is essentially unconstrained with the syntactic categories it may combine; any deviance can only be attributed to a violation of its se-

²⁶ For a definitive example of the hybrid meaning of *slash*, see the discussion on musical instruments in Chapter 4, Experiment 3 (specifically section 4.4.5 and (37)).

²⁷ Thanks to Karen Zagona for raising this topic and discussing it.

mantic requirement, which seems to be evaluated independent of structure.²⁸ Take [Champollion \(2016\)](#)'s analysis as a starting point. Champollion focuses on deriving the semantics of the intersective and collective interpretations of *and*-coordination, but he also assumes a certain syntactic structure for these coordinations. He notes that (46a) and (46b) are interpreted the same way, namely with the collective reading, yet they have different structure: he says *a man and a woman* is a conjunction of 'noun phrases', which he is using as the term equivalent to [Abney \(1987\)](#)'s DP), while *man and woman* is a conjunction of 'nominals', or simply N.

- (46) a. A man and a woman met in the park last night.
 b. A man and woman met in the park last night. ([Champollion 2016](#): 562)

The only intersective cases that Champollion discusses are those that are conjunctions of N.

- (47) John is a liar and cheat. ([Champollion 2016](#): 612)

If *slash* only has the intersective meaning, we might claim that *slash* is limited to N-coordination only, but typing these interpretations so closely to structure would suggest that *slash* should be able to create a collective meaning as well, like (46b), which is N-coordination but collective. Stating that *slash* is limited to N-coordination is also empirically false given that A- and VP-coordination, among other categories, are acceptable.

²⁸ Later in this chapter I will present examples that suggest DP slash-coordination is unacceptable, but ultimately, after the experiments in Chapter 4, I conclude it is due to semantics.

Furthermore, according to Longobardi (1994: 622), names occupy N and raise to D just in case there is no overt determiner, suggesting that in most cases proper names in English are DP. And we have some examples of *slash* coordinating proper names.

(48) Brian slash Katya arrived on time.

This suggests that DP is, in at least some cases, a valid category for slash-coordination. It remains to be explained why other DP coordinations are not valid.

(49) *The doctor slash the lawyer arrived on time.

And since the structure for (49) and (48) are, for the relevant parts, identical, it falls to semantics to explain the difference.

2.2.2 'Slash' vs. 'cum'

The pattern of use of the Latin connective *cum* is similar to *slash*. Latin *cum*, which originally meant 'with', is used in modern formal English to indicate two roles that one individual is fulfilling (Lewis & Short 1879). A classic use is to link multiple jobs that one person has, as in (50a). There are also examples of *cum* with adjectives (50c) and generic places (50d), as well as being fossilized in toponyms (50e).

- (50) a. In the winter months, I moonlight as a bartender cum ski instructor.
 b. Sites such as this show the full power of the Internet as a propaganda medium cum

travel service cum organizing tool. Oh, and nightlife directory.²⁹

- c. The fervent mediaevalism developed a philosophic cum economic tinge. [OED]
- d. The atmosphere of laboratory-cum-workshop... [OED]
- e. Prestwich-cum-Oldham was an important place in present-day Lancashire, England.

In all examples in (50), except for the place names, *cum* can be replaced by *slash*. In addition, Renner (2013: 64) notes that *cum* can only be used if it is repeated between all conjuncts (*driver-cum-waiter-cum-porter*, but not **driver-waiter-cum-porter*), a property that *slash* also has (*driver-slash-waiter-slash-porter*, but not **driver-waiter-slash-porter*). The meaning and distribution of *slash* and *cum* do overlap.

Still, *cum* differs from *slash* in at least three ways. First, I perceive a significant register difference between the two. *Cum* is unmarked only in relatively formal contexts, and it's nearly obsolete in contemporary, casual conversation. *Slash* is very common in informal conversation, and as shown by the many examples we have seen so far, appears in other domains like news reporting and published media, indicating its widespread acceptance. Second, *cum* sometimes has an additional 'transformative' component, meaning 'turned-into' or 'became'. Compare this pair of sentences.

- (51) a. Ronald Reagan is the only actor cum President of the United States.
- b. Ronald Reagan is the only actor slash President of the United States.

²⁹ 2001 Nov/Dec, David Sachs, "LET THEM EAT BITS", in *American Spectator*, volume 34, number 8, page 78.

In (51a), *cum* refers to Ronald Reagan’s unique status of being an actor who later became President. The *slash*-alternative does not have this meaning (moreover, it sounds false in the real world – at no time was Reagan simultaneously an actor and President). The latter carries no meaning of a temporal relation between the two positions; they are held simultaneously. Third, Renner (2013: 64) notes *cum* is limited to combining nouns or adjectives only, while verbal and adverbial combinations are unattested. *Slash* does not have these restrictions, and can combine all four of these categories.³⁰

2.2.3 ‘Slash’ vs. compounds

The meaning and distribution of coordinative compounds (see Olsen 2000, 2004, see also appositional compounds in Bauer 2008) is similar to that of *slash*.³¹ Coordinative compounds “encompass a coordinative relation between the two constituents such that both concepts are predicated equally of the same referent” (Olsen 2007: 87). A typical coordinative compound has to do with jobs like *auditor-investigator*, but they occur with many different semantic categories like kinship

³⁰ As we’ll see near the end of this chapter, Mithun (1988) has charted several common evolutionary paths for coordinators, and it is common for coordinators to start out as a comitative preposition, then expand to be used for all nominal conjunction, then become more versatile still and coordinate other categories. It seems *slash* is well on its way in the evolution of a coordinator.

³¹ I focus on copulative compounds, a specific subcategory of coordinative compounds, which refers to these combinations that modify or predicate of a subject equally, like *bartender-psychologist*. There are other types of coordinative compounds, such as locative compounds, like *London-Edinburgh*, the parts of which are not functioning as equal descriptors; rather they are describing the extreme ends of, say, a train line. I set these aside. For discussion of other compound types see Bauer (2008) and Bauer (2010).

(*gardener-husband*) and things *sleeper-sofa*). There are many more such examples in the Appendix of Olsen (2007). A typical noun-noun compound links two professions much like Latin *cum*.

- (52) a. The poet-translator was present at the lecture.
 b. I consulted with my bartender-psychologist.

There are several differences in the distribution and use of *slash* compared to coordinative compounds. Olsen (2000) notes that compounds grow unwieldy the more complex they are (*film-studio-mogul-television-network-owner*). *Slash* does not degrade with complexity or length, and there are some attested long examples including slash which read easily (*This is more of an extended jingle jam slash demo reel*). Olsen (2004) observes that compounds can express kinship and profession simultaneously (*his engineer-father*). This sounds unusual with *slash* (*?his engineer slash father*). Compounds can express a ‘between’ relationship for the component parts (*lawyer-client relationship*). *Slash* cannot express this ‘between’ relationship (*?lawyer slash client relationship*). Compounds can define a collection or companionship (*mother-daughter duo*). This is strictly unavailable with *slash* (**mother slash daughter duo*). Lastly, compounds and *slash* involve different categories. Compounds and *slash* both productively join nouns. Compounds can be created with adjectives (*bitter-sweet, red-brown*) and, to a very limited extent, verbs (*drop-kick* is one candidate) (Bauer 2010: 215). *Slash* has no such restriction and freely coordinates adjectives, verbs, and some functional categories and phrases, as I show in Section 3.

Slash and coordinative compounds are close but not identical in meaning. The sentence in (53) is adapted from an attested example from COCA. For speakers who can utter sentences like

(53), noun-noun compounds and *slash*-coordination are not equivalent.

(53) I'm not a student-athlete, I'm a student slash athlete.³²

The comparison between *student-athlete* and *student slash athlete* demonstrates a difference between morphological and syntactic coordination. *Student-athlete* is a compound formed by a morphological process that combines two originally separate words into one—compounding. A compound denotes a hyponym of its head—a *student-athlete* is a specific type of athlete. *Student slash athlete* is not a word but a construction formed by syntactic coordination. In syntactic coordination, a hyponym is not formed, but two constituents are combined and contribute equally to the meaning of the whole. A *student slash athlete* functions equally as a student and as an athlete.

This difference in meaning also arises in common expressions like *singer-songwriter*. A singer-songwriter describes a person who is both a singer and a songwriter, and this person “carries out both professions simultaneously” (Bauer 2010: 204). The expression *singer slash songwriter* also describes a person who is both a singer and a songwriter, but leaves room for the possibility that the two roles don't necessarily interact.

This contrast is not limited to very frequent expressions like *singer-songwriter*, which may be considered a fixed expression. If we look at less common, or novel copulative compounds, such as *teacher-astronaut*, *lawyer-novelist*, *author-cartoonist*, *developer-architect*, *plumber-inmate* (from

³² I have reversed the order of conjuncts in the second sentence for clarity in the argument. The original example is: *I'm not a student-athlete, I'm an athlete slash student*. Reversing the order of conjuncts does not otherwise affect the discussion.

Olsen 2004), the contrast persists. Each of these combinations express something different when combined with *slash*. If someone is a *teacher-astronaut*, she is an astronaut, but happens to teach (likely on astronomical topics). If someone is a *teacher slash astronaut*, it is more likely that she is a teacher and an astronaut, acting in full capacities of both at separate, unrelated times.

Blends like *Brangelina* appear to express what the coordinative compound **Brad-Angelina* would denote if it were possible: the meaning of a single individual made of two parts. *Brangelina* denotes a single individual—in this case a team or couple. **Brad-Angelina* would in principle denote the same thing, but blends are preferred for expressing this concept. Such compounds are indeed possible with nonhuman mergers, for example *AT&T-TimeWarner merger* (Olsen 2000: 299). *Slash* is unavailable for both of these cases. **Brad slash Angelina* would denote alternatives for a single individual.³³ **AT&T slash Timewarner* is not possible because *slash* does not express fusing two parts into a whole, as in a merger.

There is some controversy about the status of heads in compounds. It is not clear whether heads of English compounds are always on the left or always on the right. One interpretation of the compound *writer-directors* (Olsen 2000: 293) is that it describes an occupation that is a hyponym, or subtype, of a director. A writer-director is a type of director, not a type of writer. However, this interpretation of *writer-director* this is not uncontroversial. There are even examples where speakers consciously identify the head of a compound on the left. The example in (54)

³³ Which is possible if *Angelina* were a stage name for *Brad*, or vice versa, or this were any scenario where we know the names independently refer to the same person. But it is not possible here where we know the names refer to separate people.

suggests that the speaker interprets co-compounds as being left-headed (Bauer 2010: 206).

(54) “I am a lawyer-musician, not a musician-lawyer,” he says. “My calling is the law.”

This is surprising. In order to address these possibilities, Fábregas & Scalise (2012: 113) argue it is possible to analyze compounds as having two heads. Each component has an equal semantic contribution, and in certain languages each constituent carries inflection. For example, co-compounds in Spanish are marked for plural on both constituents (Fábregas & Scalise 2012: 115):

(55) filósofos economistas ‘philosopher-economists’ (Fábregas & Scalise 2012: 115)

(56) poetas-pintores ‘poet-painers’ (Fábregas & Scalise 2012: 115)

However, by the same argument English compounds seem to be right-headed: only the rightmost constituent carries plural marking (Olsen 2000: 293).

(57) the writer-directors (Olsen 2000: 293)

(58) the attorney-archivists (Olsen 2000: 293)

There is no controversy when it comes to heads of *slash*-coordination. It is possible to mark the first constituent of *slash*-coordination with plural (*clients slash patients*), but this is not possible in

compounds (**clients-patients*).³⁴ This is possible if *slash* is coordination at the syntactic level, since each constituent can be inflected. This is not possible in compounding, where such word-internal inflection is not possible in English. In slash-coordination, both conjuncts always contribute meaning equally, but in compounds sometimes one component contributes more meaning, or is more central to determining properties of the compound as a whole.

2.2.4 ‘Slash’ vs. orthographic </>

Lexical *slash* has its origin in the orthographic symbol </>, but they are not equivalent in every case. The (a) sentences use the orthographic </> to indicate a definite disjunction. It is not possible to replace orthographic </> with lexical *slash*, as in the (b) sentences. The question in (59a) concerns one’s spouse, where it is assumed only one of *wife* or *husband* applies. The question in (59b) is asking about someone’s spouse who is simultaneously a *wife* and *husband*, which is not a coherent concept.

- (59) a. What did you find out about your wife/husband only after you got married?
 b. #What did you find out about your wife slash husband only after you got married?

³⁴ If I am on the right track, then it should in principle be possible for the Number feature for each conjunct to differ, in something like *clients slash patient* (just as it is perfectly ordinary to say *Seven dogs and one cat stampeded down the highway*). However, as we will see this possibility is bled by the overall semantic requirement *slash* imposes on its conjuncts, that they must be homoreferential, and refer to the same thing. It is not generally possible for a plural noun to indicate the same thing as a singular noun, for example, excluding such a morphological mismatch.

- (60) a. While taking the survey, you should use Chrome/Firefox/Safari.
 b. #While taking the survey, you should use Chrome slash Firefox slash Safari.
- (61) a. Eileen will travel to the conference by air/rail.
 b. #Eileen will travel to the conference by air slash rail.

In these examples, the orthographic `</>` cannot be pronounced as *slash*, it is more likely to be read out as *or*.

I claim above that *slash* cannot be used in examples like *wife slash husband* because an intersection of those roles seems impossible, yet it seems that *slash* can sometimes be used to coordinate alternatives, or to introduce a clarification. The examples in (1), (5), (7), (11), (29), (93), (95), repeated below, illustrate these additional uses.

- (62) a. NIMBYism slash selfishness
 b. my sister slash anyone else who wants to come
 c. a Ph.D. slash career change
 d. politely slash embarrassedly
 e. entertainment slash education dollar
 f. to tapdance slash sing
 g. you lived slash work here

In *my sister slash anyone else who wants to come*, *slash* indicates the relevant options to choose from. There is no intersective meaning. In *NIMBYism slash selfishness*, the second conjunct *self-*

ishness is used to clarify the perspective on the issue. In each of the examples in (62), *slash* has no intersective meaning. I conclude there is a second meaning of *slash*: a distributive meaning that indicates alternatives or two available perspectives of the same entity or concept.

Both *and* and *or* easily link proper names.

(63) Brian and Katya arrived on time.

(64) Brian or Katya arrived on time.

The most natural interpretation of *Brian and Katya* is that there are two individuals, one name Brian and one named Katya, and these two people arrived. The most natural interpretation of *Brian or Katya* also holds that there are two separate individuals in question, and one of those two people arrived. Consider the same construction, but with *slash*:

(65) Brian slash Katya arrived on time.

Instead of holding that there are two individuals, *slash* forces an intersective reading of these names, giving two alternatives or perspectives about a single individual. Imagine that *Brian* and *Katya* are separate personas of a stage performer, where both names refer to the same individual. *Brian slash Katya* can be used to refer to that performer, indicating two sides of that personality.

These are additional constructed examples showing *slash* combining proper names. All of the following are examples where one name is a stage persona (Katya, Macklemore, Bono) and the other is a birth name (Brian, Ben, Paul Hewson).

- (66) Brian slash Katya wore a scandalous red dress that he bought at a consignment store.
- (67) I have a picture of Macklemore slash Ben's football jersey.
- (68) This school was given \$10,000 from Paul Hewson slash Bono.

In each case, *slash* cannot be substituted by *and* and retain the same meaning. *Macklemore and Ben* is not equivalent to *Macklemore slash Ben*. It is also not possible to create coordinative compounds for these name combinations (**Macklemore-Ben*, **Paul Hewson-Bono*).

2.2.5 *Interim summary*

To summarize this section, *slash* looks similar to other connective elements or processes in English, such as *and*, *cum*, compounding, and orthographic *</>*, but I have described ways that the distribution and use of *slash* differ from each of these. In comparing *slash* to these connectives, we have discovered two distinct meanings of *slash*: the first is an intersective meaning (*rapper slash actress*), and the second is a distributive meaning indicating alternatives or perspectives of a single entity or concept (*NIMBYism slash selfishness*, *Brian slash Katya*).

2.3 '*Slash*' is a coordinator

In this section, I use syntactic diagnostics to show that *slash* is a coordinator, to be added to the same category as *and*, *but*, and *or*.

The literature standardly assumes the class of coordinators is both very small and closed. Haspelmath provides the following definition for coordinating constructions.

- (69) ‘Coordinating constructions can be identified on the basis of their symmetry: A construction [A B] is considered coordinate if the two parts A and B have the same status, whereas it is not coordinate if it is asymmetrical and one of the parts is clearly more salient or important, while the other part is in some sense subordinate.’ (Haspelmath 2004: 3)

Slash exhibits all of these properties. It coordinates two parts, where the two parts have the same status. In *clients slash patients*, both *clients* and *patients* play an equal part in the description. Neither flanking parts are considered more primary than the other, in meaning or structure. Coordinating constructions are contrasted with subordinating constructions, like those formed with a preposition. In *movies about pets*, the word *pets* is but a part of a modifier about *movies*, which is the primary part of the phrase.

There are several syntactic arguments to be made that qualify *slash* as a coordinator. The surface distribution of *slash* is similar to that of *and* and *or*. It always links two similar conjuncts. We’ve seen examples of nominal categories (N, A), but there are also examples of larger categories like verb phrases (VP).

Slash satisfies the reversability criterion for coordinators. There is no other syntactic category where reversing the order of the associated elements yields truth-conditionally equivalent sentences. (Chaves 2007: 17). In (70) I show examples of *and*: (70a) and (70b) are truth-conditionally equivalent sentences, even though the clausal associates of *and* have been reversed. In (71) the same property holds for *slash*: the two sentences are equivalent even though the coordinands are

switched.³⁵

- (70) a. Tom likes to sing and Jane likes to dance.
 b. Jane likes to dance and Tom likes to sing.

- (71) a. John is a bartender slash ski instructor.
 b. John is a ski instructor slash bartender.

³⁵ All this is true only if we assume there is no temporal relationship between the conjuncts, which is why these examples only have stative predicates. Coordination often does encode a temporal, usually causal, relationship:

- (i) Bill pushed John, and John fell over.

Most native speakers would take this to mean the event of the second conjunct (John fell over) happened immediately after, and was probably a direct consequence of, the event in the first conjunct (Bill pushed John).

Speakers would likely not rate this as equivalent in meaning to the reversed example:

- (ii) John fell over, and Bill pushed John.

Meaning that *and* itself would fail the reversability criterion. Hence the examples I've given in the text above have only stative predicates with no possible or implied temporal relationship. So it seems the reversability criterion is not that robust outside this exact condition.

No other category satisfies this reversability criterion.³⁶ (72) shows this for a preposition: (a) and (b) are not equivalent.

- (72) a. I like stories about pictures.
 b. I like pictures about stories.

Slash is monosyndetic, like English coordinators – there is one coordinator per pair of coordinands.

- (73) a. David Blaine is a magician slash showman slash entertainer.
 b. David Blaine is a magician slash showman slash entertainer slash musician.

Iteration of *slash* doesn't necessarily create subordinate relations, as shown in (74a); unlike prepositions, as in (74b).

- (74) a. I like stories slash pictures slash movies.
 b. I like stories about pictures about movies.

Only coordination allows the ambiguity of distributed modifiers. (75a) is ambiguous: John can

³⁶ This is a property of both syntactic coordination and some compounds. For example, *poet-painter* could be reversed with no significant change in meaning: *painter-poet*. For this reason, reversability is not a property that distinguishes syntactic coordination from morphological coordination (i.e. compounding); rather it is property that distinguishes the head category of coordination from something like prepositions, which cannot reverse.

be a skilled bartender and a mediocre ski instructor, or skilled at both professions (or the third subtle reading, unique to *slash*, is that John is skilled at *being a hybrid* of both professions). We see the same interpretive possibilities with *and* in (75b).

- (75) a. John is a skilled bartender slash ski instructor.
 b. John is a skilled bartender and ski instructor.

Coordinators can appear as ‘heads’ of a parenthetical aside.

- (76) a. John is Mary’s neighbor (and best friend).
 b. John is Mary’s neighbor (or best friend).
 c. John is Mary’s neighbor (slash best friend).

Coordinators can function as a discourse particle at the beginning of a conversation partner’s turn.

- (77) A: The class is Brazilian.
 a. B: ...And hilarious!
 b. B: ...Or hilarious!
 c. B: ...Slash hilarious!

In sum, *slash* shows a similar syntactic distribution to traditional coordinators.

There is also psycholinguistic evidence that *slash* is a coordinator. Speakers show evidence

of both conscious and unconscious knowledge of *slash*. Conscious knowledge comes in the form of meta-awareness of *slash* as a word and speaker commentary on it as such. This newsreporter consciously comments on *slash*, in the context of coordinators:

- (78) Welcome back. We are live at the Provo courthouse, bringing you the latest in the trial of Martin MacNeill, a **doctor slash lawyer – I’ve got to add some more slashes – slash Sunday school teacher, slash bishop**, who is accused of murdering his wife.³⁷

This type of meta-linguistic commentary is available for other coordinators such as *and* and *or* (even aside from the frozen expression *no ifs, ands, or buts*). This is shown in (79):

- (79) ‘We need to push as hard as we can for renewable energy and energy efficiency, and on reducing carbon emissions from coal,’ says Stanford University researcher Sally Benson, who specializes in carbon storage. ‘We’re going to need **lots of ‘ands’** – this isn’t a time to be focusing on ‘**ors.**’ The carbon problem is just too big.³⁸

Such a use is unattested and bizarre for our alternatives for *slash*, such as Latin *cum*. Consider this constructed example:

- (80) ??John moonlights as a bartender-cum-ski instructor-cum-barista-cum ... we need **so many**

³⁷ COCA: 2013 (131022) Facelift Murder Trial Day Five SPOK: CNN

³⁸ COCA. Date 2014 Publication information Apr2014, Vol. 225 Issue 4, p30-40. 11p. Title COAL: Part one The invisible carbon Author Nijhuis, Michelle; Source MAG: National Geographic

cums ... cum-professor.

A search for *cums* in COCA results in zero hits. It is possible this has to do with the fact that *cum* has no ‘predecessor’ in orthography, like *slash* does. Speakers are already familiar with *slash* as a common punctuation mark, contributing to their meta-awareness of it as a connecting device in running text. But there is no analog for *cum*—speakers don’t have prior familiarity with *cum* as a common written punctuation mark, for example, making such a meta-awareness less likely.³⁹

Making this meta-linguistic comment on noun compounding like *singer-songwriter* is also nearly unformulable, even hypothetically (‘??we need so many dashes’).

This display of conscious appreciation for *slash* shows that it has reached such a high level of integration in the mental lexicon that speakers are aware of it and can usefully make meta-linguistic comments on this.

Speech errors provide evidence that speakers have unconscious knowledge of *slash*. Speech errors strongly obey the *syntactic category rule*: where one word erroneously replaces another, the replacement is almost always the same category as the intended word (Fay & Cutler 1977: 507, Dell 1995: 191). Examples of word substitution errors show that speakers replace words with another within sometimes very narrow semantic categories, but always within the same grammatical category. On the left is the intended utterance, on the right is the actual utterance. (81a) and (81b) are noun substitution errors, within narrow semantic subcategories of nouns, and (81c) is an example showing that functional categories are susceptible as well. All these examples

³⁹ Thanks to Karen Zagona for pointing out this possible factor in the explanation.

are from Fromkin (1984: 262).

- (81) a. he's not that happy in Illinois → ... happy in Hawaii
 b. don't forget to return Aspects → ...to return Structures - uh - Aspects
 c. I think your honor has really put your finger on it → ... put the finger

In (82) and (83), we see examples of *slash* occurring with other coordinators, *or* and *and*, respectively. The discourse context makes it likely that this is repair, and not a type of juxtaposition.

(82) KEMAL-KIRISCI: The conflict in Syria that sometimes has been defined in Turkey as a conflict between a regime that is **minority base or, slash, Alawite base**, vs. a Sunni majority, has had a spillover effect in Turkey.⁴⁰

(83) GROSS: Well Artie, I really want to wish you the best in all ways and thank you so much for coming back to FRESH AIR and talking with us. And I wish you good health and good moods and some happiness. Thank you very much.

Mr-LANGE: Thanks, Terry. And I'll see you at **the NPR and slash Sirius** Christmas party I guess.⁴¹

Since it has been independently shown that word substitution errors are almost always within-category, I conclude that these errors, where coordinators are 'repaired' by *slash*, are evidence

⁴⁰ COCA: 2012 (121121) PBS NewsHour For November 21, 2012 SPOK: PBS

⁴¹ COCA: 2009 (090612) Comic Artie Lange On Being Too Fat To Fish SPOK: NPR_FreshAir

that *slash* is within the coordinator category.

2.4 ‘*Slash*’ and its syntactic behavior

Here I examine in much finer detail the syntactic behavior of *slash*, presenting a range of contexts and tests. I focus on comparing *slash* to two other coordinators *and* and *or* for two reasons. These are the most common coordinators in English. The literature also concentrates on these two, for example: ‘Concerning the connectors, I shall (not surprisingly) take *and* to be the connector *par excellence*. That is, *and* is the most basic and the least specific connector, *or* comes close to it’ (Lang 1984: 23).

2.4.1 Syntactic categories

In this section I describe the categories we see flanking *slash*. *Slash* in many examples we’ve seen so far simply coordinates bare nouns (N).

(84) Just a sip of beer... that’s what they serve these days at the **home slash beach slash pub**.⁴²

(85) Michael Scott: There are four kinds of business: tourism, food service, railroads, and sales.
(pause)

Michael Scott: And **hospitals slash manufacturing**. And air travel.⁴³

(86) The patient has a **teratoma slash neuroblastoma**.

⁴² Mike Birbiglia. *My Girlfriend’s Boyfriend*. 1:08:42.

⁴³ *The Office* (US). Season 3, Episode 16

Slash does not coordinate full noun phrases with an article (DP), though.

(87) ***A doctor slash a lawyer** walked in the room.

Nor does it work that well with any pair of determiners (D).

(88) a. *I saw **a slash the** movie yesterday.

b. ***This slash that** box should go in the closet.

Adverbs and adjectives readily coordinate with *slash*.

(89) Egli declined **politely slash embarrassedly**.

While it is possible to coordinate heads, it also seems possible to coordinate whole Adjective Phrases, as in (90).

(90) I'm very very **happy for you slash jealous**

How do we know this is phrasal coordination? We could entertain the idea that (90) is actually head coordination, as in (91).

(91) ?I'm very, very [happy slash jealous] for you.

Coordination in general allows extraposition, and head coordination is no exception. If we ex-

trapped the coordinator and second conjunct, we would get (92), which on the surface reads as (90).

(92) ?I'm very, very happy t_i for you [slash jealous] $_i$.

This would derive head coordination as an analysis of (90), and (90) would not prove there is coordination of Adjective Phrases after all. Except, (91) is not a valid underlying form. It is not possible to be *jealous for you*. Therefore (90) must simply be phrasal coordination to begin with. Extraposition (92) is unavailable because the ostensible source (91) is ungrammatical.

Slash coordinates bare verbs (V).

(93) Tom wants to **tapdance slash sing onstage**.

There are examples where *slash* is attested to coordinate verb phrases (VP).

(94) I am working at home slash conducting meetings all day.

(95) I forgot that you **lived slash work here**.

(96) A: What are you doing?

B: **Office hours slash watching Olympics.**⁴⁴

Slash coordinates T heads.

(97) Excuse me, who **is slash was** this guy?⁴⁵

(98) I **could slash should** help you clean the kitchen, but I'm lazy so I **can't slash won't**.

Assuming subjects end up in Spec,TP, T' coordination seems to be the limit, possible but likely marginal, as in (99). Coordination of anything larger seems extremely unwieldy, like the TP in (100).

(99) ?John **was cleaning the kitchen slash will be leaving soon**.

(100) ??John **was cleaning the kitchen slash Mary was replacing the carpet**.

Finally, C and unambiguous CP (that is, unambiguously not TP) resist co-occurrence with *slash*.

(101) ?I know **what slash when** John sang.

(102) *I know **what John sang slash when he did so**.

⁴⁴ “Office hours” is not a VP on the surface. However, it is not possible that the speaker is straightforwardly coordinating a DP and a VP, because reconstructing the full response is incoherent (**I'm doing [office hours slash watching Olympics]. / *I'm doing [watching Olympics and office hours]*). It is assumed the speaker is coordinating VPs and deleted the *doing* in the first conjunct.

⁴⁵ Bob's Burgers. Season 3 Episode 9.

Coordinated *wh*-words in English are possible in questions like *What and when did John sing?* (Citko & Gračanin-Yuksek 2016: 394). It is also possible to coordinate the CPs with *and* (*I know what John sang and when he did so*). This means the restrictions in (101) and (102) are due to *slash*, rather than a general prohibition against coordinating multiple *wh*-words in English.

These results are summarized in the table in (103).

Category	CP	C	TP	T	vP	VP	V	DP	D	NP	N	AdjP	AdvP	PP
Slash coordinate	*	?	?					*	*					

To sum up these findings, *slash* is sensitive to the category of the elements it can combine, but in an idiosyncratic way. It is not the case that simply small elements like words are allowed and larger units like phrases are not. Nor is it the case that *slash* coordinates only nouns or adjectives, as *cum* does (Renner 2013: 64). The attested examples of VP coordination disproves both of these (*I am working at home slash conducting meetings all day*). There is a rough division between lexical categories, which are allowed to coordinate (N, NP, V, VP) and functional categories, which are not (D, DP, C, CP). In Chapter 4, I use acceptability-judgments to probe the reasons for this category restriction.

2.4.2 Negation

When coordination appears under the scope of negation, the logical interpretation differs depending on the coordinator used. Disjunction under the scope of negation results in independently negating both conjuncts. In (104), if *Alex is not a lawyer or judge*, then it follows that *Alex is not*

a lawyer, **and** it follows that *Alex is not a judge*. He may in fact be in some third occupation, an accountant.

(104) Alex is not a lawyer or judge. (... He is an accountant.)

$$\neg L \wedge \neg J$$

Conjunction under the scope of negation does not lead to any special interpretation. It simply means that the particular combination of predicates cannot hold of the subject. If *Alex is not a lawyer and judge*, it could be true that he is in only one of those roles, or it could also be true that he is something else entirely, like an accountant. The sentence can only assert that Alex is not ‘this particular combination of two things’.

(105) Alex is not a lawyer and judge. (... He is ONLY a lawyer.)

$$\neg(L \wedge J)$$

Slash is generally interpreted the same way as *and*. If *Alex is not a lawyer slash judge*, it could be true that he is only a lawyer, or it could be true that he is a judge, or it could be true that he is an accountant. Like *and*, the sentence with *slash* can only assert that Alex is not ‘this particular combination of two things’.

(106) Alex is not a lawyer slash judge. (... He is ONLY a lawyer.)⁴⁶

$$\neg(L \wedge J)$$

But there are some examples where distributivity is the more natural reading.

(107) When you're not married slash in a relationship, it's incumbent on you to be proud of yourself for things.

$$\neg M \wedge \neg R$$

The data are inconclusive, but they suggest that *slash* can be interpreted like either *and* or *or* under negation.

2.4.3 Law of Coordination of Likes

The Law of Coordination of Likes (LCL) states that coordinands must be of the same category, or 'type' (Williams 1978). For *and* and *or*, category identity is too restrictive, as Sag et al. (1985) shows with these and other examples.

(108) Pat is either stupid or a liar.
 ADJ DP (Sag et al. 1985: 117)

⁴⁶ In the logical shorthand, I use the logical *and* symbol \wedge , although the symbol is not exactly equivalent to what *slash* means. It serves the purpose here to illustrate the parallelism between *and* and *slash*, and the difference from *or*.

(109) Pat is either a lunatic or under the influence.
 DP PP (Sag et al. 1985: 117)

(110) Pat is a Republican and proud of it.
 DP ADJ (Sag et al. 1985: 117)

Slash generally does not allow these exact kinds of exceptions to the LCL. Coordinands must be the same category, as the (b) examples show.⁴⁷

(111) a. Pat is stupid and a liar.
 ADJ DP

b. *Pat is stupid slash a liar.
 ADJ DP

(112) a. Pat is a Republican and proud of it.
 DP ADJP

b. *Pat is a Republican slash proud of it.
 DP ADJP

(113) a. Svidrigailov brushed the question aside, gruffly and with loathing.
 ADV PP

b. *Svidrigailov brushed the question aside, gruffly slash with loathing.
 ADV PP

⁴⁷ If the conclusion about categories is on the right track, where DP *slash*-coordination is out, then this example (111b) could be bad simply because of the presence of a DP. As we will see in Chapter 4, there is more to the story, and DP *slash*-coordination is in fact acceptable just in case the DPs unambiguously identify the same referent. (111b) is still not saved by this. *Stupid* and *a liar* both *describe* Pat, they are not *identified* with Pat (as would be the case in the identificational use of a copular sentence (Roy 2013)).

There is at least one instance where *slash* appears to join unlike categories, an ADJ and a PP.⁴⁸

- (114) When you're not married slash in a relationship, it's incumbent on you to be proud of
 ADJ PP
 yourself for things.

It is possible to preserve the LCL by analyzing this as coordination of a Predicate Phrase or general subject complement. The Predicate Phrase (PrP) analysis (Bowers 1993) holds that examples like *I consider John crazy and a fool* still obey the LCL. This sentence does not contain coordination of an AP and a DP; rather it is coordinating a supercategory called a Predicate Phrase, of which the labels AP and DP are subtypes. Such predicate expressions can be conjoined, as in (115a). In (115b) it looks like an AP coordinates with a PP, but under Bowers's analysis, these are two Predicate Phrases.⁴⁹

- (115) a. I consider John crazy and a fool (Bowers 1993: 605)
 b. Bill is unhappy and in trouble.

2.4.4 Coordinate Structure Constraint

Slash also obeys the Coordinate Structure Constraint (Ross 1967).

⁴⁸ Claire Hellar, p.c.

⁴⁹ Prazmowska (2015) for details of these and related analyses, and a concise overview of the literature on the Law of Coordination of Likes.

(116) **The Coordinate Structure Constraint (CSC)**

In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct. (Ross 1967: 161)

Coordinate constructions don't allow such extraction (120b), and neither does *slash* allow such extraction (118).

- (117) a. *Who did you see [_] and [Tim]?
 b. *Who did you see [Tim] and [_]?
 c. *Who did you see both [_] and [_]?
 d. *Which of her books did you find both [[a review of _] and [_]?

- (118) a. *What is Lila a cat slash [_]
 b. *What is Lila a [_] slash [friend]?
 c. *What is John both [_] slash [_]? (A bartender slash ski instructor.)

However, Ross (1967), Goldsmith (1985), Lakoff (1986), and others noted that the CSC can be circumvented in certain cases, using the coordinator *and*, in the (a) examples. These examples are not acceptable with *slash*, as shown in the (b) sentences.

- (119) a. Here's the whiskey that John [_{&P} [went to the store] and [bought _]].

Ross (1967: 168)

- b. *Here's the whiskey that John [_{&P} [went to the store] slash [bought _]].

(120) a. How many lakes can you [_{&P} [pollute _] and [not arouse public furor]]?

Goldsmith (1985: 213)

b. *How many lakes can you [_{&P} [pollute _] slash [not arouse public furor]]?

It was shown that *slash* is independently capable of coordinating VPs, so the ungrammaticality of the (b) sentences is not due to the fact that *slash* cannot coordinate such large structures. Instead, we see that *slash* remains subject to the CSC, unlike certain types of asymmetric *and*.

2.4.5 Intensifying iteration

In ordinary coordination, both *and* and *or* require the conjuncts to be distinct in meaning.

(121) *This year the winter has been surprisingly mild and this year the winter has been surprisingly mild. (Lang 1984: 99)

(122) *John is looking for Lollek and Lollek is being sought by John. (Lang 1984: 99)

Yet there are cases of *and*-conjuncts where the conjuncts are not only semantically non-distinct, but they are identical in form. This construction is a somewhat idiomatic but nevertheless productive use of *and*, and yields a particular ‘intensifying’ reading (Gleitman 1965). *Faster and faster* is an idiomatic construction that means “increasingly fast”. *Slash* does not allow this; neither does *or*.

(123) a. Garraty walked faster and faster.

- b. *Garraty walked faster or faster.
- c. *Garraty walked faster slash faster.

2.4.6 *Collective predicates*

A key property of *slash* is that there is no ‘summative’ property of *slash* that will license collective, reciprocal, or similar predicates. *Or* behaves the same way; *and* does not. This follows from the observation in section 2 that *slash* only combines proper names if they refer to the same individual.

(124) Comitative predicates

- a. James and Maria went to the wedding together.
- b. *James or Maria went to the wedding together.
- c. *James slash Maria went to the wedding together.

(125) Collective predicates with proper names

- a. Ethan and Laura met (each other) in semantics class.
- b. *Ethan or Laura met (each other) in semantics class.
- c. *Ethan slash Laura met (each other) in semantics class.

(126) Collective predicates with bare nouns

- a. A doctor and lawyer met.
- b. *A doctor or lawyer met.
- c. *A doctor slash lawyer met.

2.4.7 Relational modifiers

Relational modifiers like *same* and *different* are sometimes ambiguous between an INTERNAL READING and an EXTERNAL READING (Carlson 1987: 532). (127) is ambiguous. One interpretation emphasizes the fact that Zac and Jessica are singing the same song as each other. This is the internal reading. A second interpretation emphasizes the fact that Zac and Jessica are singing the same song as a third person or a previous discourse referent. This is the external reading. (127b–c) do not have internal readings: they cannot be continued with “...as each other...”.

- (127) a. Zac and Jessica sang the same song. (external and internal reading)
 b. Zac or Jessica sang the same song. (external only)
 c. *Zac slash Jessica sang the same song. (external only)

Moreover, *slash* forces the proper names to refer to the same individual, so (127c) is impossible if *Zac* and *Jessica*, as might be assumed, are separate individuals. In cases of performers with multiple names, or individuals with split-personality, it may be possible to obtain a variant of (127c) with an internal reading that is true in some remote sense.

- (128) Brian slash Katya sang the same song.

If *Brian* and *Katya* are one and the same individual, and it is possible for a single event to give rise to an internal reading (in other words, if one considers *I sang the same song as myself* acceptable), then it is possible for him (*Brian*) to sing the same song as herself (*Katya*). I find this interpretation

difficult, but logically possible given the right scenario.

2.4.8 Unique behavior of slash

In this section I highlight two behaviors that are unique to *slash*: obligatory monosyndeton and its interpretation.

Slash does allow more than two coordinands, but unlike *and* and *or*, it requires additional instances of *slash*. It is OBLIGATORILY MONOSYNDETIC: for N number of conjuncts, there are $N - 1$ instances of *slash*. In (129) there are 3 conjuncts, and 2 slashes.⁵⁰

- (129) we're going to get an exclusive look inside the small box off which **magician slash contortionist slash performance artist** David Blaine is going to step tomorrow for 44 days.⁵¹

And and *or* allow this very naturally as well.

- (130) You are a magician, **and** contortionist, **and** performance artist.
- (131) You are a magician, **or** contortionist, **or** performance artist.
- (132) You are a magician, **slash** contortionist, **slash** performance artist.

But *and* and *or* allow, for stylistic and/or meaning reasons, 'all but last' omission, where all but the

⁵⁰ It is worth noting here that *and/or* has the same syndetic behavior as *and* and *or*.

⁵¹ COCA: 2003 SPOK ABC_GMA

last coordinator is dropped, as in (133) and (134). If we attempt this with *slash* (135) the sentence becomes degraded, and prosody is stilted.

(133) You are a magician, contortionist, **and** performance artist.

(134) You are a magician, contortionist, **or** performance artist.

(135) ??You are a magician, contortionist, **slash** performance artist.

The sentence in (138) shows us that *but* has the same property as *slash*. *But* can combine two conjuncts.

(136) You are a magician **but** shy.

But cannot sequentially combine more than two conjuncts.

(137) *You are a magician, **but** shy, **but** happy.

Although, *and* and *or* can be elided if there are more than two conjuncts, as above in (133) and (134), *but* cannot likewise be elided, as shown in (138).

(138) *You are a magician, shy, **but** happy.

Slash exhibits a hybrid behavior. It can join more than two conjuncts. But it also must appear between each pair of conjuncts and cannot ever be elided.

As noted earlier, *and* can have either a collective or an intersective interpretation.

(139) A cat and dog ran in. (collective only; 2 animals)

(140) That liar and cheat was licensed. (intersective)

Or has only a disjunctive reading.

(141) A cat or dog ran in. (disjunctive only; 1 animal)

Slash refers to an animal that is somehow both a cat and a dog.

(142) A cat slash dog ran in. (intersective only; 1 animal)

Consider the additional illustration in (143) and (144). While (143) is ambiguous between meeting with two individuals or one, (144) can only mean meeting with one individual.

(143) Meeting with your colleague **and** therapist can be therapeutic.
[ambiguous: 2 or 1 persons]

(144) Meeting with your colleague **slash** therapist can be therapeutic.
[unambiguous: 1 person]

While *and* has both the collective and intersective meanings, *slash* has only the intersective meaning.

A table summarizing the observations is shown in (145).

(145) Summary of the observations. + means the property holds for that coordinator.

	and	or	slash
Exceptions to the Law of Coordination of Likes	+	+	+
No exception to the Coordinate Structure Constraint			+
No iterative intensification		+	+
No comitative meaning		+	+
No collective meaning (proper names)		+	+
No collective meaning (bare nouns)		+	+
No internal readings of relational modifiers		+	+
Strict binarity			+
Bare noun coordinands	collective/ intersective	disjunc.	intersec. only

In sum, *slash* syntactically behaves more like *or*, yet has the semantics of intersective *and*. There aren't many contexts where I can make a meaningful comparison with *but*, because *but* has such a limited distribution due to its independent requirements, but it partially shares with *slash* the property of strict binarity. What seems to unify these observations is a constraint on reference: the result of *slash*-coordination must denote a single, coherent individual.

2.5 '*Slash*' comes from punctuation

In this section, I present an explanation for how *slash* entered the spoken language. I also discuss historical and typological support for *slash* as a coordinator.

2.5.1 Innovation in functional categories

The appearance of *slash* as a coordinator is unexpected for at least two reasons. First, coordination has long been considered a ‘very’ closed functional category (Zoerner 1995: 14). Many works on coordination discuss only *and* and *or*, possibly *but*. Some include a few more members in the class: ‘in English... there are only five coordinating conjunctions: *and*, *or*, *but*, *for*, and *so*’ (Johannessen 1998: 98). By any estimate the class is small and does not gain new members easily.

Second, there is little precedent for a coordinator to originate from *punctuation*. Functional categories in general can originate from seemingly any other category, including lexical categories. Conjunctions are reported to come from verbs, nouns, case markers, adpositions, deictics, or even mutated versions of conjunctions themselves. *And* derives from an Indo-European adverb or locative preposition, one of Ancient Greek *anti* ‘anti-, opposite’, classical Latin *ante* ‘before’, or Sanskrit *anti* (‘near’ adv.). (OED Third Edition, June 2008). *Or* is a reduced form of *other*, which was itself being used as a conjunction (OED Third Edition, June 2008). We see that *and* derives from either an Indo-European preposition or adverb, and *or* derives from a conjunction. What is unprecedented about *slash* is that it almost certainly derives from a punctuation symbol, the orthographic slash `</>`.⁵²

2.5.2 From written to spoken language

I propose that *slash* has followed this path from written to spoken language:

⁵² There is no entry for *slash* the coordinator in the OED (OED Third Edition, June 2008).

(146) **The Path of Lexicalization for Effable Punctuation**

1. Established as punctuation in orthography (written language only)

↓

2. Speakers began pronouncing the names of punctuation for emphasis (spoken language)

↓

3. Names of punctuation grammaticalized (spoken, written language)

There are a few other very well-attested examples of new members of functional *and* lexical categories entering the spoken language through orthography. These include *period* and *quote*.

(147) **period / full stop**

- a. ‘Esports is the future of competition. **Period**,’ UCI’s Acting Director of Esports Mark Deppe says.⁵³
- b. No. He sent her out to go get a sandwich, **period**.⁵⁴
- c. There is an official order gone out from the pope that senior Vatican people are not to gossip with the media. **Full stop**.⁵⁵

⁵³ Retrieved from <https://www.engadget.com/2016/09/14/>

esports-arena-college-uc-irvine-leage-of-legends/?sr_source=Facebook, 9/15/16

⁵⁴ COCA: 2015 (150106) Did Princeton Grad Murder Millionaire Dad?; Cops Try To Identify Newborn Left To Die
SPOK: CNN

⁵⁵ COCA: 2005 (20050306) Critique of Worldwide Media Coverage SPOK: CNN–Intl

Period is interesting because both common names for the mark <.>, *period* and *full stop*, have been lexicalized. This further supports the central idea that it is really the *names* for the punctuation marks that are entering the language. There is some cross-linguistic support for this idea as well. For example, the Russian word *tochka* ('period') has a similar discursive use and function as the English *period*, emphasizing finality or inflexibility.

(148) Ja skazal - i tochka!
I said - and period
'I said it - end of story!'⁵⁶

(149) Eto samyj luchshij muzykant. Tochka!
this best better musician. period
'He is the absolute best musician. Period.'⁵⁷

Quote has a number of interesting properties, some of which are demonstrated in these examples.

(150) **quote**

- a. they have a new, **quote**, 'strategy' to work with Congress on some things of mutual interest.⁵⁸
- b. It reads, **quote**, 'It appears that I am now being unjustly victimized again.'⁵⁹

⁵⁶ Olga Zamaraeva, p.c.

⁵⁷ Ibid.

⁵⁸ COCA: 2015 (150104) Interview With Delaware Senator Chris Coons; SPOK: CBS

⁵⁹ COCA: 2015 Royal Sex Scandal: Prince Andrew SPOK: CNN

It can interrupt very small units, like breaking up an ADJ from its N as demonstrated in (150a). It can be used to deride (150a), or to report verbatim language (150b). *Quote* might also be the only kind of correlative spoken punctuation, with the optional correlate *unquote* used to delimit the boundaries of the quoted material. These are used where open and closing quotation marks are used in written language.

(151) One can not, as war correspondent Michael Herr testifies in dispatches, simply, **quote**, run the film backwards out of consciousness, **unquote**.⁶⁰

(152) bad topiary is, **quote**, the senseless torture of shrubs, **unquote**.⁶¹

The combined expression *quote-unquote* can also be uttered entirely before the quotation, as in (153) and (154).

(153) The last words in one of his emails was, **quote, unquote**, ‘You are not getting off that easy.’ [Spoken transcript]

(154) ‘That, I think, is much better than being **quote/unquote** ‘religious,’ ’ the crow said. [In a print book]⁶²

⁶⁰ COCA: 2015 (150120) In The Evil Hours, A Journalist Shares His Struggle With PTSD SPOK: NPR

⁶¹ COCA: 2014 (140125) Not My Job: How Much Does A Former Hedge Fund Manager Know About Hedges? SPOK: NPR

⁶² Sedaris, David. 2010 *Squirrel seeks chipmunk*. p.78

This spoken innovation differs from written language, which does not conventionally allow reporting speech that way (**That, I think is much better than being “ ” religious.*). In oral language, effable “quote” is often accompanied by the gesture “air quotes”, which doubly-emphasizes its origin from written punctuation.⁶³

Other attested examples of spoken pronunciation include *dot dot dot* and *question mark*.

(155) MAYOR WEST: Well **dot dot dot** hello!⁶⁴

(156) AUDIENCE QUESTION: Will the Alumni Association hold social events in the coming year?

PRESENTER: **Yes question mark?** [All high tone] I’ll have to ask our Social Chair about that.

Slash differs from all of these instances (*period/full stop, quote-unquote, dot dot dot, question mark*) in that its distribution corresponds to an already-established syntactic category.

The proposed path of lexicalization does not admit all types of punctuation. There are some punctuation marks that have never reached step 2, and resist quite strongly being pronounced. All of the following in (157) are seriously anomalous compared to those in (158). These are all highly anomalous utterances in spoken English.

⁶³ Sometimes the spoken form is eliminated all together and the force is conveyed through the use of “scare quote” intonation and the “air quotes” gesture or some other paralinguistic cue like raised eyebrows.

⁶⁴ *Family Guy*, Season 9 Episode 15: “Brothers & Sisters”. FOX.

(157) *Ineffable Step 2 punctuation marks.*

- a. ?Nerzhin shoved his cap farther back **dash** he was feeling hot **dash** and rested his head in the fork of the tree again
- b. ?You'll become an indispensable expert **exclamation mark**
- c. ?They've never given remission here **semicolon** you know that.
- d. ?So the murderers **apostrophe** hearts bleed for Russia now, do they?
- e. ?Wasn **apostrophe** t it you who butchered Russia in 1917?

In contrast, these are all acceptable utterances in spoken English.

(158) *Attested Step 2 punctuation marks.*

- a. Sport is the opiate of the people **period**
- b. The prisoner asked **quote** was it to keep the air clean that not one of the prisoners was smoking? **endquote**
- c. A Russian Orthodox priest **slash** warden just happened to walk into the cell

This set of ineffable punctuations in (157) likely corresponds to the ones that already have phonetic correlates in speech. Commas <,> used to set off items of a list indicate a kind of non-falling 'list' intonation, and pronouncing "comma" does not provide any additional information, even in emphasis (*?Please go to the store and buy pineapples comma seltzer comma and rum*). This use of "comma" is not likely to enter spoken language because its spoken version serves no extra purpose. The comma can sometimes be pronounced for extra rhetorical effect, such as introducing

a dramatic counterpoint (*However, comma, the man was not at home when the crime happened*).

This use of spoken “comma” does serve an additional purpose and it is readily pronounced.

Emphasis is a likely driving factor behind *slash* entering spoken language. A number of attested coordinative compounds are written using the orthographic *</>*: *composer/conductor*, *actor/winemaker/singer* (Olsen 2000: 293, 318). For any of these compounds, it is plausible that speakers began pronouncing the *slash* as a way to emphasize or clarify the fact that the words are combined in this specific way (and eventually reanalyzed it as a syntactic coordinator). In an imagined dialogue, speaker A makes an assertion about a person’s occupation, but speaker B has more accurate information and tries to correct speaker A.

(159) A: I met Mr. Holland yesterday. He’s an interesting musician, he’s like a composer or conductor, I can’t remember which.

B. Glenn Holland? He’s a composer *slash* conductor.

The lexical item *slash* gives speakers a way to put emphasize on the hybridity of his profession, something you can’t do with compounds—In “He’s a composer-conductor” there’s nothing to put emphatic intonation on.

It seems that the two meanings of *slash* could derive from speakers pronouncing the orthographic slash *</>* as used in two different constructions. The first, intersective meaning of *slash* could have originated as the emphatic pronunciation of *</>* in coordinative compounds (*bartender/psychologist*). The second, distributive meaning of *slash* could have come from non-intersective uses of *</>*, such as *NIMBYism/selfishness* or *race/ethnicity*. Speakers pronouncing

slash in these combinations are expressing not intersection but options and perspectives.

The words *period*, *full stop*, *quote*, and *slash* are all homophonous with common words already established in the language. For *slash*, it is the common verb *slash*, as in *The government won't slash taxes*.⁶⁵ This is a potential precondition for these punctuation names to enter the language: the name must already be a standard word in order for speakers to bring the punctuation into productive functional use in the language. This would explain why the technical, typographical terms for *</>*, *virgule* or *solidus*, haven't as easily entered the functional lexicon: they aren't common words in the first place.

In the set of effable punctuation marks, we can make a further, useful distinction between purely orthographic items and symbols with semantic content. Purely orthographic items are those like 'full stop' (.), which mark structure in the sentence, but don't add any extra meaning of their own. Symbols with semantic content are those like 'plus' (+) which can be used a replacement for 'and', or indicates the addition operation. We have seen purely orthographic items enter the spoken language, but they have no real linguistic functional category. 'Full stop' is not an adverb or verb. On the other hand, symbols with semantic content readily enter existing categories, like how 'plus' became a noun and a verb. 'Slash' also seems like a symbol with semantic content, and it has readily entered the functional category of coordinators.

Lastly, in terms of the timeline, in the traceable history of English orthography, *</>* actually predates all other marks (including *<, >* and *<.>*) in punctuated written texts (Crystal 2015). It is

⁶⁵ In fact, by one source, the *verb* is itself the origin of the name for the *punctuation mark*. (<https://www.wired.com/2015/10/the-secret-history-of-the-hashtag-slash-and-interrobang/>)

interesting that it did not also enter the spoken language earlier than all others.

2.5.3 *Typological and historical perspective*

Although the traditional English coordinators *and* and *or* are not category-sensitive, it is not uncommon for world languages to have coordinators with category restrictions (Haspelmath 2004: 10). Many languages have different coordinators depending on the syntactic or semantic properties of the conjuncts. No language, however, has unique coordinators for collective and intersective coordination. *Slash* is potentially an example of the latter. *And* is ambiguous between these meanings (and others), and this ambiguity may have propelled *slash* to enter the language as an unambiguous coordinator, allowing speakers to express intersection unambiguously.

Although there is no other language that has a specific conjunction used for this purpose, there are languages that make differences along other semantic lines. Chechen has different conjunctive constructions for when the conjuncts form a *conceptual unit* (A-ii B-ii) and when they form *separate entities* (A 'a B 'a).

(160) shish-ii stak-ii
 bottle-AND glass-AND
 'a bottle and a glass' (Haspelmath 2004: 13)

(161) waerzha mazh 'a, q'egash shi bwaerg 'a
 black beard AND shining two eyes AND
 'black beard and two shining eyes' (Haspelmath 2004: 13)

So, there is precedent in other languages for conjunctions to be sensitive to fine, sometimes sub-

jective semantic distinctions, where their distribution and use is not solely governed by syntactic properties.

Mithun (1988), writing about the historical changes and development of coordination in general, claims that it is common for coordinating conjunctions to originate as noun phrase linkers, then eventually grow to coordinate predicates and clauses (Mithun 1988: 350). As a punctuation mark, </> was limited to combining small units: *actor/director, king/queen, colleague/therapist*. As *slash* entered the spoken language, speakers reanalyzed *slash* as syntactic coordination, which allowed speakers to coordinate larger units, like whole verb phrases – *doing office hours slash watching Olympics*.

2.6 Future research

I strongly suspect at this point in time *slash* is age-graded, rated as more acceptable and more productively used by younger speakers. There is substantial individual variation in the use of *slash*, at this point impressionistically attributed to social variables. Reviewers and colleagues have supported the intuition that *slash* is a relatively *new* entry into English, and therefore may be age-graded. Some informants have reported not having *slash* as a coordinator at all. It would also be interesting to explore which sociolinguistic variables are indexed by the use of *slash*. Iyeiri et al. (2010) studied transcripts of meetings in the White House and showed that women use sentence-initial ‘and’ more often. Shapiro (1997) found that sentential coordination was negatively correlated with formality. Is the use of *perceived* as informal or language from younger speakers? The corpus results come from a variety of published media as well as transcripts of

news anchors, *prima facie* suggesting it is available to all registers and ages.

Coordination features in a number of idioms and binomials, such as *raining cats and dogs* and *spic and span* (Grant & Bauer 2004: 41, Gleitman 1965: 293). The coordinator used, and the associated conjuncts are generally fixed and cannot be modified or omitted without dissolving the idiom (#*It's raining cats*, #*It's raining cats or dogs*, #*The kitchen is spic*.) Austin & Kuiper (1988: 6) states that all “central coordinators”, except *but* (since it has independent constraints, see Toosarvandani 2013, 2014), are found in English idioms. Some examples are given in (162).

- (162) a. bow and scrape
 b. for better or worse
 c. rain or shine
 d. neither hide nor hair (Austin & Kuiper 1988: 6)

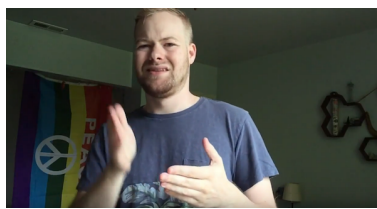
Since the other coordinators are found in these completely conventional expressions, I expect that *slash* will eventually become established in some similar idioms or fixed expressions.

I have also seen the emergence of an equivalent of *slash* in younger users of American Sign Language (ASL). The dominant hand traces the shape of a ‘slash’ with an open hand.⁶⁶

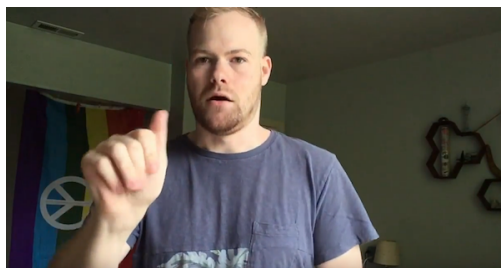
⁶⁶ Rogan Shannon. “Queer Media Thoughts”. Youtube, 64–66s. Accessed May 2018. Shannon was born deaf and has no access to the spoken, effable *slash*.



MOVIE



SLASH



#MEDIA

Figure 2.1: Native ASL user incorporating *slash* into an expression: “movies slash media”.

ASL has various strategies for coordination, including two generalized coordinator expressions using indexing and body shift (Davidson 2013: 6), as well as fingerspelling O-R and A-N-D, in limited contexts (Davidson 2013: 13). It is interesting to witness this iconic coordinator enter the language even though sign language users may not have access to the spoken, effable *slash*. Its use and interpretation in ASL must be studied further.

2.7 Conclusion

I have argued that *slash* is a new coordinator in English, as demonstrated by its systematic and productive use in both spoken and written language and informal and formal contexts. *Slash* syntactically behaves as a coordinator and integrates into theories of the structure of general coordination, meaning that there is no immediate need to propose a new type of syntactic structure to account for the data. There are some restrictions, however. DP slash-coordination does not appear as acceptable as slash-coordination with other categories. In Chapter 4, I explore the possible explanations for this, and propose that there is a semantic requirement of homoreferentiality that *slash* imposes on its conjuncts that causes DP coordination to be degraded. This is interesting because speakers are latching onto a very specific kind of semantic requirement, deploying it successfully, and systematically judging the use of *slash* against this requirement. No other coordinator in English has this exact kind of syntactic or semantic restriction, showing that *slash* is truly a new innovation. Despite the traditional characterization of coordinating conjunctions comprising a ‘very closed’ functional category that is impervious to expansion, *slash* is a case study of innovation in this category, demonstrating that speakers are more creative and

innovative than previously thought.

Chapter 3

AND/OR: SYNTAX, SEMANTICS, AND TYPOLOGY

3.1 Introduction

The syntactic literature on coordination in English typically discusses a select few coordinating conjunctions in detail: *and*, *but*, and *or* (e.g., Munn (1993), Zoerner (1995)). Recent research has proposed the class of coordinators is larger than previously thought, including the focus-sensitive coordinators *let alone*, *much less*, and *never mind* (Hulsey 2008, Harris & Carlson 2016, Harris 2016). Hulsey (2008) proposes that these focus-sensitive coordinators are possible only in structures with obligatory ellipsis, including in her view gapping, right node raising, and stripping. Harris (2016) and Harris & Carlson (2016) have provided experimental evidence supporting this analysis, using self-paced reading time and eye-movement data, showing that readers do expect certain types of contrast with these particular coordinators and when that contrast is not supplied, their reading time is affected adversely.

To the best of my knowledge *and/or* has not been analyzed as a unique coordinator with its own set of properties. *And/or* is a complex coordinator that shows properties of both *and* and *or*. It is well-attested in many formal domains, including linguistics (1), law (2), and medicine (3).

(1) Linguistics

- a. researchers who have defined grammaticality **and/or** acceptability in other ways might make a principled distinction between two types of judgment¹
- b. It is standard to find that object extraction is more liberal than subject **and/or** adjunct extraction²
- c. What could we predict about the difficulty **and/or** speed of pronouncing regular words, irregular words, and pseudo words?
- d. The passive serves to topicalize an argument that is not normally a subject **and/or** to de-emphasize the argument that normally IS the subject.³
- e. If the importance of beginning **and/or** end letters can be fully explained by perceptual salience.
- f. Bibliography for Haj Ross **and/or** John Robert Ross
- g. Headedness **and/or** Grammatical Anarchy⁴
- h. In them, more words are feminine than masculine, a new word created or brought into the language is spontaneously marked feminine, **and/or** when there are males and females present, it's the feminine pronoun that is used. (John McWhorter. *The Language Hoax*, p. 143)

(2) Law

¹ Schütze 1996:26

² Phillips 2013:94

³ Goldberg 2013:221, in Sprouse & Hornstein 2013

⁴ Conference title: <http://linguistlist.org/callconf/browse-conf-action.cfm?ConfID=272296>

- a. Video [and/or] sound recordings obtained by police personnel [...] shall be made available for hearing **and/or** viewing by defense counsel.⁵
- b. If you are applying for both a passport book and/or card, you may receive three separate mailings: one with your returned citizenship evidence; one with your newly issued passport book, and one with your newly printed passport card.⁶

(3) Medicine

- a. Brachydactyly **and/or** clinodactyly was a consistent feature in the hands and/or feet.
- b. A CHD means a child is born with an abnormally structured heart **and/or** large vessels.

It is also found in informal domains, including entertainment, spontaneous speech, and other casual contexts. These include nationally-broadcast TV-shows like “Bob’s Burgers” (4a), stand-up comedy routines (4b), and even official guidelines for formatting (4c).

- (4) a. So, who wants to touch **and/or** be touched by a famous person?⁷
- b. There’s nowhere I went go. As long as it’s horribly, horribly true **and/or** wrong.⁸
- c. Give your figures and tables titles and/or captions. You can also use indentation, bold

⁵ Washington State Code; RCW 9.73.090b

⁶ USA Application for passport or passport card Form DS-82:<https://travel.state.gov/content/passports/en/passports/information/card.html>

⁷ *Bob’s Burgers*, Season 2, Episode 9

⁸ Louis CK

or italic font, outlining or borders, symbols, **and/or** bullets to highlight important information.⁹

And/or is well-attested in numerous spontaneous conversations that I have heard, or in internet discussion forums. Its use is never met with hesitation or scrutiny, telling us that it is considered a natural component of casual speech.

- (5) a. I sometimes read books that are not that great **and/or** boring and/or difficult to enjoy, simply because I want to be able to have an opinion about certain books.
- b. Heaven forbid a game developer, when wanting to make a level/map, takes influence from real life and/or history.
- c. What are some dubious **and/or** controversial biographies you have read?

And/or is a unique, lexicalized combination of *and* and *or*, combined by an orthographic slash *</>*. It is an established coordinator in English that shows systematic, regular, robust, and intentional use. The many published and televised instances of *and/or*, as well as corpus instances, are seldom followed by self-correction. This suggests it is not a production error. As shown above, *and/or* is not stylistically limited, and is attested in many contexts that cross-cut formal, informal, published, and spontaneous domains. *And/or* is fully lexicalized and integrated into the grammar, and is not ad-hoc compounding by orthographic slash *</>*. The orthographic slash *</>* is usually

⁹ The LSA Poster guidelines has 6 total instances of and/or: <https://www.linguisticsociety.org/resource/lsa-poster-guidelines>

available in written language as shorthand for alternatives.

- (6) a. Heaven forbid a game developer, when wanting to make a **level/map**, takes influence from real life and/or history.
- b. **How/why** is it even a road?

The *</>* in these examples is typically pronounced out loud as “or”: level or map, how or why. It is not pronounced *slash*, nor is it pronounced as a single word, as in *and/or*. While orthographic slash is a general strategy available to speakers, speakers are not actively combining two coordinators to create *and/or*.

There are two more observations that support this: other functional categories do not combine at all by orthographic slash, such as determiners, complementizers, prepositions: **a/the*, **that/if*, **from/of*. In principle, it should be possible to construe a meaning out of combining alternative prepositions but the result is less than optimal.

- (7) ?This is the book by/about John.

This could potentially be pronounced as “by and about” or “by or about”, but this is a different kind of word combination than the one we see with “and/or”, which is never pronounced “and and or”.

There are also virtually no instances of other binary combinations of coordinators: **and/but*, **or/and*, **but/and*, **but/or*, **or/but*, and so on. The vanishingly rare exceptions seem to be either

special literary devices or idiosyncratic to a specific author.

- (8) The challenge must be seen not as “either/or” but as “**and/and**.”¹⁰
- (9) ...when using encoding **or/and** decoding variables to predict ending performance¹¹
- (10) This is a diamond if you love appreciate book covers (who doesn't?) **or/and** are a designer.¹²

Although there is one example of a well-published author who is a native English speaker using the anomalous combination *or/and* in a published work:

- (11) Each side in the debate tends to regard the other as mentally ill or/and blinded by ideology.
(David Foster Wallace, Authority and American Usage, in Consider the Lobster, p. 105)

Wallace is known for wordplay, creating idioms, and using unusual literary devices, so the reversal could very likely be intentional and have some textual significance. I have not verified if he uses it more than once.

Speakers consider variants like *or/and* anomalous. Google searches reveal *and/or* is found in a random sample of several other languages, as in Table 1. In these languages, the only combi-

¹⁰ AfricaArts journal; only found here. This use is acceptable in an emphatic or rhetorical sense, but is it is not observed elsewhere to be used in a logical sense (indeed what would the meaning of such a coordinator be?).

¹¹ Weiser 2012.

¹² Posted by a non-native English speaker from Lithuania: <https://www.goodreads.com/review/show/1265423403?booksh>

nation found is the exact translated equivalent of *and/or*, apparently excluding any alternatives like *or/and*, as in English. Since this was a casual Google search, I have no way of verifying the native-ness of the data, nor when these entered their respective languages. I assume given my non-native knowledge of these languages that the instances of “and/or” have plausible, similar interpretations.

Table 3.1: Attested versions of *and/or* in multiple languages.

Language	<i>and/or</i>
Czech	<i>a/nebo</i>
French	<i>et/ou</i>
Spanish	<i>y/o</i>
Italian	<i>e/o</i>
Russian	<i>i/ili</i>
Finnish	<i>ja/tai</i>
Serbo-Croatian	<i>i/ili</i>
Hebrew	<i>v/o</i>

I have also observed some examples from German, one in a published grammar of German (clearly intending *und/oder* as a unit and not as alternatives) and one in a natural conversation.

(12) German

- a. Peter und/oder Hans wird/werden die Aufgabe übernehmen.
Peter and/or Hans will.3SG/3PL the task take.over
'Peter and/or Hans will take over the task.' (Zifonun et al. 1997: 2383)
- b. Herkunft und/oder Haltung...
Origin and/or attitude...
'Origin and/or attitude...'

The last section of this chapter discusses data in Finnish, where a Finnish corpus shows robustly the use of *ja/tai*, the Finnish equivalent to *and/or*.

This chapter suggests inclusion of *and/or* in the standard repertoire of English coordinators.

The existence of *and/or* raises a series of questions:

- (13) **Status in the grammar:** What is its status in the grammar? Is it a unitary, grammaticalized lexical entry?
- (14) **Effect on coordination:** What does that mean for the syntactic analysis of constructions containing *and/or*? Is it another member of the & category, as has been argued for *and*, *but*, *or*, *slash*? How does *and/or* enforce its distributional constraints?
- (15) **Limits of orthographic slash 1:** What is the orthographical symbol “/”, not to be confused with “effable *slash*” discussed in Chapter 2, and how did speakers use it to create *and/or*?
- (16) **Limits of orthographic slash 2:** What does the orthographical symbol do more generally? Does this symbol productively join some categories but not others? Why?

- (17) **Typology and History of *and/or*.** In English, the only “slashed coordinator” is *and/or*, and we don’t find other combinations like *or/but* or *and/but*. Do other languages also have this restriction? What equivalents of *and/or* do we find in other languages like Finnish, which already have dedicated inclusive and exclusive disjunction, and what might this tell us about the meaning of *and/or*?

I propose the following responses to the questions.

- (18) One of the functions of orthographic slash is to combine two words. If the resulting combination is semantically coherent, the combination can be used to indicate that the two words are alternatives, options, possibilities. This is different from the meaning of a blend, which is another way to combine two words. The blends *smog* and *Brangelina* don’t indicate the alternative entities of *smoke* and *fog*, and *Brad* and *Angelina*, rather the blends indicate the hybrid entity formed by the combination of characteristics from both of the words.
- (19) In the case of *and/or*, speakers have reanalyzed *and/or* as a separate lexical item, namely a coordinator. The behavior of *and/or* is systematic and predictable: wherever there is a syntactic or semantic constraint on either *and* or *or*, *and/or* takes the more restricted distribution.
- (20) Within the paradigm of available coordinators, *and/or* is a pragmatically *weaker* coordinator: it allows the speaker to report their uncertainty about two propositions, properties,

relations, or descriptions, rather than committing to two with *and* or only one *or*.

In Section 2, I present a brief discussion of its meaning. In Section 3, I present the results of a corpus study, showing attested examples of *and/or* in use. In Section 4, I show its syntactic behavior by comparing it to other coordinators in environments known to interact with coordination like negation and gapping, in order to demonstrate the central observation of this chapter: the set of constraints on *and/or* is the union of the set of constraints on the conjunction *and* and the disjunction *or*. I include an appendix to the chapter exploring the use of Finnish *ja/tai* ‘*and/or*’, in terms of its categories and agreement properties.

3.2 *Meaning*

In this section I discuss the basic semantic properties, on the way to a formal semantic definition. I also discuss the status of *and/or* in a semantic map of the functions of coordinators.

3.2.1 *Basic semantic properties*

And/or has received much attention in the legal domain, with many published articles in various law reviews, mostly proscribing its use.

- (21) a. “And/Or: Its Uses and Abuses” (1935-36) 42 West Va LQ 235
- b. Maurice B Kirk, “Legal Drafting: The Ambiguity of ‘And’ and ‘Or’ ” (1971) 2 Texas Tech Law Review 235.
- c. “Some Cases on ‘And/or’ ” (1994) 31 Clarity 21.

- d. David Elliott, “The Orians, the Andians and the Andorians” (2004) 51 Clarity 10.
- e. Roger Shuy, “Legal Uses of And/Or... or Something” Language Log (blog) (April 17, 2008), <http://languagelog.ldc.upenn.edu/nll/?p=47>.

As most of the titles would suggest, scholars of law have identified that *and/or* is a particularly ripe source of confusion, and this ambiguity is to be avoided in legal documents. To excerpt some choice words about the expression:

- (22) a. The involvements of the contract are accentuated by the frequent use of the baffling symbol “and/or”-a disingenuous modernistic hybrid, inept and irritating.¹³
- b. The pleading is replete with the device “and/or” which was accurately described by Viscount Simon . . . as the “Bastard conjunction”¹⁴.

While courts of law and legal commentators are quick to lambast the coordinator, *and/or* is far from “inept” or “baffling” when it comes to everyday speech. Speakers have systematic and regular intuitions about its use and behavior, and there is little surprising in its syntactic distribution. There is a sense that the speaker is underspecifying some relationship between the conjuncts. If you are discussing a topic and that topic involves *A and/or B*, why not specify whether you are

¹³ 1935: *Bell v Wayne United Gas Co*, 181 SE 609 at 618 (W Va 1935), dissenting judge (on other grounds). Cited from <http://www.slaw.ca/2011/07/27/grammar-legal-writing/>

¹⁴ 2010: *St Clair v Timtalla Pty Ltd Anor* (No 2), [2010] QSC 480 at para 11. Cited from <http://www.slaw.ca/2011/07/27/grammar-legal-writing/>

discussing *A and B*, or *A or B*?

There are situations and cases where that is not possible, and I argue that this is precisely the optimal use for *and/or*. Speakers can choose to underspecify the relationship between the conjuncts, and the hearer is not informed exactly which entity or entities is involved. Sometimes the speaker simply doesn't know, and uttering *and/or* is closer to the truth in the speaker's mind because to be any more specific would be asserting unfounded knowledge.

And/or is, simply put, the semantic combination of *and* and *or*. There is an additional pragmatic component of *speaker uncertainty*: a speaker who uses *and/or* is either unsure or intentionally underspecifies which of the conjoined alternatives is the appropriate one. This *speaker uncertainty* component is derived as an implicature from the speaker's decision not to use a more "specific coordinator" (Gricean Maxim of Quality). A more "specific coordinator" is either *and* or *or*, both of which have narrower, more specific meanings. Consider these utterances.

- (23) a. John worked with Adam and Brice.
 b. John worked with Adam or Brice.
 c. John worked with Adam and/or Brice.

The sentences in (23) have the corresponding interpretations in (24).

- (24) a. John worked with both Adam and Brice. (...definitely the two of them)
 b. John worked with either Adam or Brice. (...definitely just one person)
 c. John worked with Adam and/or Brice. (...and I don't even know whether it was one

or two people.)

The most felicitous interpretation of (23c) with *and/or* is (24c), where the speaker is totally uncertain which combination of people John worked with, and whether it was 1 or 2 people that John worked with. The use of *and/or* conveys this extra component of speaker uncertainty.

Another example that demonstrates the speaker uncertainty component comes from contrasting the acceptability of sentences where the speaker is obviously aware of the relevant mental states, and sentences where the speaker may not be aware. For a sentence with a first-person subject, the speaker of that sentence must be aware of his mental status. For a coordinator like *and*, it is completely ordinary to answer the neutral question *What beverage do you like?* with a statement like (25).

(25) I like coffee and tea.

There is no syntactic reason that the same sentence with *and/or* should be degraded. It should be able to combine two perfectly conventional nouns like *coffee* and *tea*.

(26) ??I like coffee and/or tea.

Yet this seems an odd answer to the question, and that oddness stems from how it seems that the speaker is uncertain about their mental state. This response suggests that the speaker likes either one or both of the beverages, but oddly doesn't know which. Although logically the same oddness should occur with *or*, it is conventionally acceptable to respond with something like (27).

(27) ?I like coffee or tea.¹⁵

Malchukov (2004) notes that the rigid distinction between disjunction and conjunction in *or* and *and* may be neutralized in a modal or generic-habitual context, as observed above. Each of these cases is improved if we situate the sentence within a concrete setting, where the sentence becomes not so much a generic statement about abstract mental preferences, but specific habits.

(28) In the mornings after breakfast,

- a. I like coffee and tea.
- b. I like coffee or tea.
- c. I like coffee and/or tea.

And/or becomes acceptable here it because instead of describing an uncertain mental state, which is unlikely, it is describing the vagaries of habit: it allows for the possibility of taking two beverages or just one in the morning, which is a reasonable habit.

All the statements are acceptable with a third person subject, even without restricting the setting, because it is plausible that the speaker does not know the precise mental state of another person. In answering the question *What beverage does John like?* all of the following are fine:

- (29) a. John likes coffee and tea.
- b. John likes coffee or tea.

¹⁵ As a habitual sentence, *?I like coffee or tea* is fairly marginal, but it improves in *I would like coffee or tea*.

- c. John likes coffee and/or tea. (cf. (26))

Not to mention the cases of habits of concrete situations. It's just as plausible that John's habits are unknown to the speaker, so *and/or* is fine.

(30) In the mornings after breakfast,

- a. John likes coffee and tea.
- b. John likes coffee or tea.
- c. John likes coffee and/or tea.

The improvement of *and/or* when used with a third person subject is expected if *and/or* conveys speaker uncertainty. It is more likely to be the case that the speaker is uncertain about John's preferences than the speaker's own, therefore it is easier to use *and/or* with third person subjects.

3.2.2 Towards a formal semantic analysis

There are a number of studies on the formal semantics of coordination in general (Winter 2001, Lang 1984) and several on *and* alone (Champollion 2016, Schein 2017), among others. Most of the coordinators have complex denotations, especially *and*, because each of them appears to be polyfunctional and operate in different ways depending on the syntactic context. Part of the debate on the semantics of coordinators is whether these complex meanings are all part of one complex word (argued in Schein (2017)) or there are multiple words (such as left-subordinating and (LS-and) and normal coordinating and (C-and) in (Culicover & Jackendoff 2005).

I will discuss the syntactic properties in more detail below, but for now it seems that some of the cases of multiple *ands* do not exist for *and/or*, making our job simpler. Culicover & Jackendoff (2005) assert the existence of left-subordinating *and* in their analysis of asymmetric coordination, a phenomenon noted in Lakoff (1986). In these sentences, *and* is a conjunction that is interpreted like a conditional (Culicover & Jackendoff 2005: 475).

(31) You drink another can of beer and I'm leaving. (Culicover & Jackendoff 2005: 475)

Based on arguments that the two conjuncts here do not share equal status, they cannot be reversed and remain truth-conditionally equivalent, and others, Culicover & Jackendoff call this use of *and* a special word 'left-subordinating *and*'. This use is not available with *and/or*.

- (32) a. *You just point out the thief and/or we arrest her on the spot.
 b. *This is the senator that the Mafia pressured and/or (consequently) the senate voted for health care reform.
 c. *That is one rock star that I see another cover story about and/or I'll scream.

The 'left-subordinating' meaning of *and* is presumably blocked by the *or* component.¹⁶ So *and/or*

¹⁶ *Or* is not traditionally identified as having this consequential meaning, but it seems fine in a sentence like *You stop drinking or I'm leaving*, which has a very clear 'counter-conditional?' meaning *You stop drinking or (if you don't then) I'm leaving*. There is also a strong sense of conditional/consequence with the set phrase 'or else': *Stop touching me or else.*, where *or else*, even though idiomatic has the same paraphrase of: *if you don't stop, then (something bad will happen)*. Culicover & Jackendoff (2005: 496–498) discuss this use of 'subordinate or'.

does not seem to be polyfunctional like *and*, at least in the case of LS-*and*, and we do not have to provide such an additional semantic definition for *and/or*.

Consider some possible definitions for *and/or*.¹⁷ The simplest assumption is to assume that *and/or* is giving the possibility that, for a given conjunction, either *and* or *or* apply. Under normal conditions, the truth conditions for *and* (&) are as follows.

(33) Truth table for *and*

p	q	p&q
1	1	1
1	0	0
0	1	0
0	0	0

The truth conditions for inclusive *or* (\vee) and exclusive *or* (*exv*) are as follows, the key difference being in the first row, where exclusive *or* is false just in case both propositions are true.

¹⁷ Thanks to Toshiyuki Ogihara for the material for this discussion.

(34) Truth table for inclusive *or* (\vee) and exclusive *or* (exv)

p	q	$p \vee q$	$p \text{ exv } q$
1	1	1	0
1	0	1	1
0	1	1	1
0	0	0	0

With the truth conditions for the basic connectives established, there remain two possibilities for that of *and/or*. If *or* is inclusive, then *and/or* ($[p \& q] \vee [p \vee q]$) means the same thing as \vee , inclusive *or*.

(35) Truth table for *and/or*, if *or* is inclusive

p	q	$p \& q$	$p \vee q$	$[p \& q] \vee [p \vee q]$
1	1	1	1	1
1	0	0	1	1
0	1	0	1	1
0	0	0	0	0

On the other hand, if *or* is exclusive, then *and/or* is ($[p \& q] \text{ exv } [p \text{ exv } q]$), with the following truth conditions.

(36) Truth table for *and/or*, if *or* is exclusive

p	q	p&q	p exv q	[p&q] exv [p exv q]
1	1	1	0	1
1	0	0	1	1
0	1	0	1	1
0	0	0	0	0

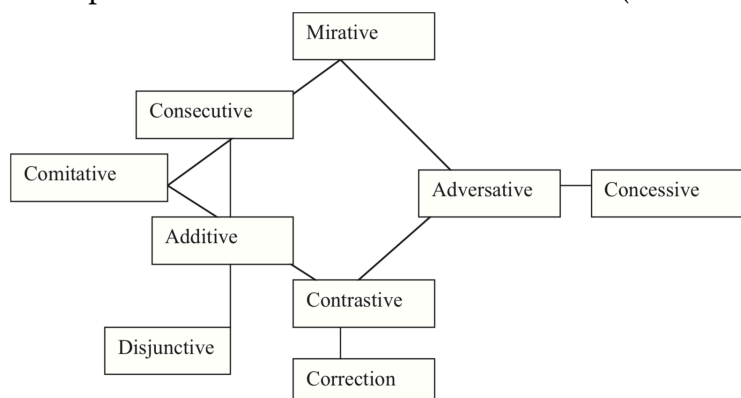
The result is the same. In both cases, *and/or* has truth conditions ultimately equivalent to inclusive *or* (\vee), which is consistent with the semantic observations given earlier in this section.

3.2.3 On its status in a semantic typology

A semantic map is a method for visualizing multiple meanings of words or morphemes (Haspelmath 2003: 412). Meanings, or ‘functions’, are represented as labeled nodes on a network that are connected by lines. A particular morpheme is said to have a range of functions on the map, and the contiguous range of functions must all be connected by lines in the network. A semantic map, then, constitutes a typological claim about possible words. Possible words are those words that have a range of meanings all connected by lines. Impossible words are those words that have a range of meanings that are not connected by lines. (Haspelmath 2003: 413)

The meaning of coordinating conjunctions, like most other categories, can be broken down into primitive functions like comitative, additive, and contrastive. Malchukov (2004) proposed the following map of semantic functions for coordinators.

(37) The map of semantic functions for coordinators (Malchukov 2004: 178)



On this map, functions that are related are placed together and linked by lines. It is proposed that coordinators can have any number of functions, as long as they are contiguous along the map's lines. This makes a number of predictions. If a connective is found to express an adversative meaning and an additive meaning, then it is predicted to have the "contrastive and/or mirative functions" as well as the functions in between, which may include the comitative and/or consecutive functions. The disjunctive, correction, or concessive functions would not be necessarily expected. (Malchukov 2004: 179)

English *and* roughly corresponds to the comitative–consecutive–mirative branch and the comitative–additive–contrastive branch, while *but* is the adversative function. (Malchukov 2004) It is left unsaid but presumably the English *or* is the disjunctive function on this map. Some examples of these uses are gathered below.

(38) Functions of *and*

a. Comitative

Abdu and Balki went to school.

- b. Consecutive

John went to the store and bought some ice cream.

- c. Mirative

Ivan tripped and died (surprisingly).

- d. Additive

New taxes are levied and peasants suffered bad harvests.

- e. Contrastive

Peter is diligent, and Vanya is lazy.

(39) Functions of *or*

- a. Disjunctive

Batman solves crime by day or by night.

(40) Functions of *but*¹⁸

- a. Adversative

Amanda ate three apples but one banana. (Vicente 2010: 382)

- b. Concessive

¹⁸ One might notice *but* has discontinuous functions: correction is not linked directly to Adversative. One solution is to consider there to be a contrastive use of *but*, as in *Peter is diligent but Vanya is lazy*. Or, it might be the case that there are two different kinds of *but* that have very different uses and structure in the grammar. Toosarvandani (2013, 2014) discusses these possibilities.

John is short but good at basketball.

c. Corrective

Max didn't eat chard but spinach (Toosarvandani 2013: 828)

This map allows us to systematically explore the various functions of *and/or* and make predictions about its use. As a starting hypothesis, *and/or* covers the functions of both *and* and *or*, meaning, the two branches from comitative–mirative and comitative–contrastive, as well as the disjunctive. If we consider the examples from above, but replace each of the coordinators with *and/or*, we can test whether the appropriate interpretations are possible.

(41) Functions of *and/or*

a. Comitative

Abdu and/or Balki went to school.

b. Consecutive

John went to the store and/or bought some ice cream.

c. Mirative

Ivan tripped and/or died (surprisingly).

d. Additive ('moreover')

New taxes are levied and/or peasants suffered bad harvests.

e. Contrastive

Peter is diligent, and/or Vanya is lazy.

f. Disjunctive

Batman solves crime by day and/or by night.

In each of these, the function remains *as a possibility* for *and/or*. None of the functions are lost as a possible interpretation for the sentence. For *Abdu and/or Balki*, it is possible that both of them went, in which case we would be making use of the comitative function. It is also possible that only one of them went, in which case we would make use of the disjunctive possibility. *And/or* does not reduce the possibility of functions, rather it allows the speaker to remain agnostic about which semantic function they are asserting between the two entities or propositions. *And/or* still occupies a contiguous portion of the map, which supports [Malchukov](#)'s proposal that connectives must do so.

3.2.4 Section summary

And/or is largely interpreted as the semantic combination of *and* and *or*, meaning that it allows the speaker to be ambiguous and flexible between the two. Because it is pragmatically weaker than *and* or *or*, it contributes the pragmatic component of speaker uncertainty. If the speaker is cooperative and had more information, they would use a more specific or stronger coordinator. However, speakers use *and/or* to show their uncertainty. When comparing the functions of *and/or* on a semantic map like that of [Malchukov \(2004\)](#), we see all of the expected semantic functions—including comitative, consecutive, and disjunctive—in its productive use.

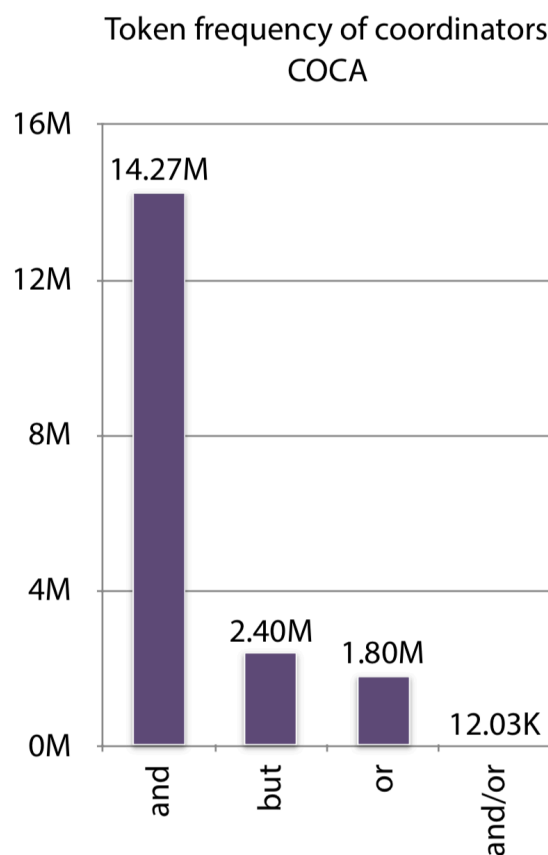
3.3 *Distribution*

The regular and systematic use of *and/or* is supported by its substantial presence across several English corpora. I looked at three BYU English corpora to get a picture of its rate of usage in contemporary English, its rate of usage across time, and its rate of usage by Englishes around the world.

First, I consulted the Corpus of Contemporary American English (COCA; Davies 2008). COCA has 440 million words from 1990–2012, from both spoken and written language. I conducted a simple search for four coordinators: *and*, *but*, *or*, and *and/or*. For the simple coordinators *and* and *or* I ensured that a whitespace was found on either side, to prevent false positives from *and/or*. The results are shown in the figure.¹⁹

¹⁹ COCA search conducted in November 2016.

Figure 3.1: Token frequency of coordinators in COCA.

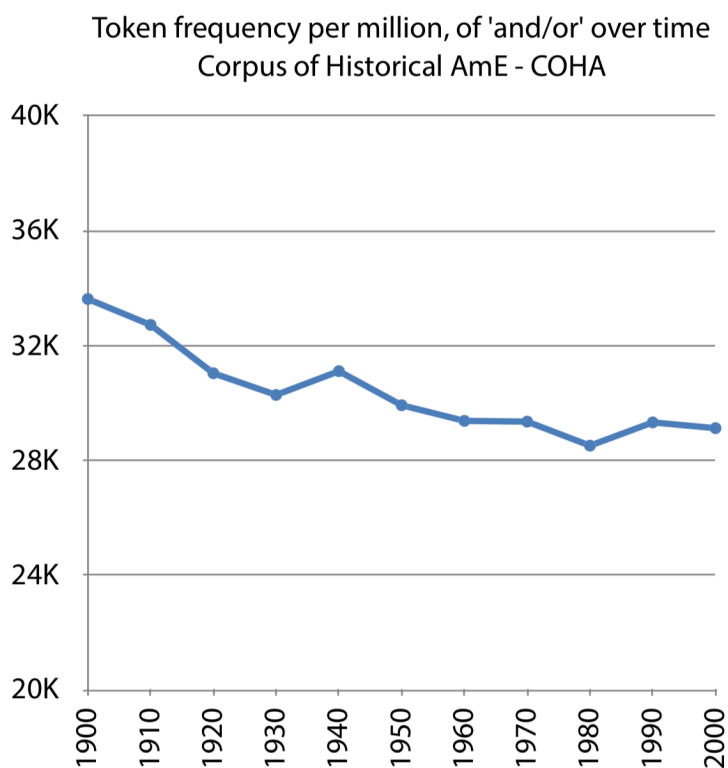


And is by far the most common coordinator, with over 14 million occurrences in COCA, followed by *but* with 2.4 million, and *or* with 1.8 million. *And/or* has just about 12 thousand occurrences in COCA. It is fairly rare compared to the other coordinators, but nevertheless has thousands of diverse attestations in the corpus.

Next, I looked at the usage of *and/or* over time. I consulted the Corpus of Historical American English (COHA; Davies 2010), and again performed a search for *and/or*. COHA has 385 million words from 1810–2009 and provides the number of instances for a given decade. The results are

shown in Figure 2.

Figure 3.2: Token frequency per million, of *and/or* over time, in COHA. COHA search conducted in November 2016.

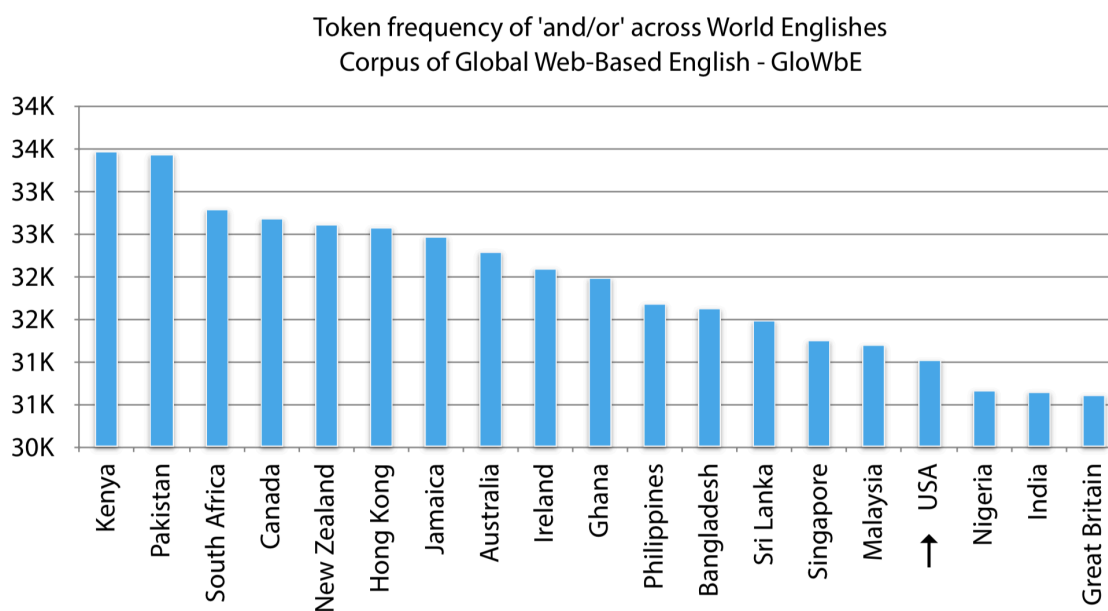


The downward trend suggests that usage of *and/or* is decreasing, but this may only be apparent. I attribute this to shift in genres represented in the corpus over time. Although *and/or* is attested in all domains in contemporary English, it still retains a slightly formal flavor. It is possible there are more ‘formal’ texts in earlier decades, explaining the apparent higher rates of usage.

Lastly, I looked at the use of *and/or* by country. I consulted the Corpus of Global Web-Based

English (GloWbE; Davies 2013), which has 1.8 billion words from 20 English-speaking countries, collected from 2012–2013. 60% of the texts are from blogs. The results are shown in Figure 3. USA is highlighted by an arrow simply for comparison. Countries on the horizontal axis have English as official language in some capacity. GloWbE search conducted in November 2016.

Figure 3.3: Token Frequency of *and/or* across World Englishes, in GloWbE.



Countries show roughly the same rate of usage, in the low 30 thousands. It is interesting to note that countries like the United States, Nigeria, Great Britain, and India tend not to use it *as much* as countries like Kenya, Pakistan, South Africa, and Canada. *And/or* is not unique to American English, nor a particularly recent innovation.

I have demonstrated its robust use and attestation in several English corpora of both American English and World English varieties. I now turn to a deep look into its syntactic behavior in American English, in order to examine more closely its constraints and interpretation.

3.4 *Syntactic behavior*

This section explores the syntactic properties of *and/or* and coordinating constructions containing it, its structure, behavior and constraints.

The descriptive generalization of the behavior of *and/or* is as follows:

(42) Any syntactic context where either *and* or *or* is ungrammatical, *and/or* is ungrammatical.

Put another way, *and/or* is only allowed where both *and* and *or* are. *And* and *or* have conflicting requirements when it comes to collective predicates, relational modifiers with an internal reading, anaphors, ‘respectively’, semantic contradiction. Moving onto advanced properties, I look at ATB wh-questions, quantifiers, and gapping with negation.

3.4.1 *Basic properties*

Collective predicates are those like intransitive *meet* which require a plural subject (Winter 2001: 46). There are a number of strategies to create the necessary plural subject. The subject could denote a plural because it is a group noun like *committee*, as in *The committee met*. By definition, group nouns specify a group of individuals, and are lexically-specified for plural features. Another way to denote a plural subject comes from a conjunction of two nouns with distinct reference, like *The linguist and the hermit met*. This strategy, called *non-boolean conjunction* makes an assertion about a set of singular individuals (Montague 1970, Krifka 1990).

Boolean conjunction combines two objects and allows for distribution over the argument.

For the intransitive verb *sing*, it is possible to distribute the argument (subject) of this complex intransitive verb over each of its terms.

- (43) a. John and Mary sing. =
 b. John sings and Mary sings. (Krifka 1990: 162)

Non-boolean conjunction combines two objects and does not allow for distribution over the argument.

- (44) a. Manfred and Mats wrote an article together. \neq
 b. Manfred wrote an article together and Mats wrote an article together. (Krifka 1990: 164)

Rather than being a property of the predicate *sing* or *wrote an article together*, Krifka (1990) concludes these are different uses of *and*. In (43a), two singular noun phrases are combined with the boolean coordinator *and* and do not create a group nor a complex individual. In (44a), two singular noun phrases are combined with the non-boolean coordinator *and*, which creates the complex set of singular individuals.

In English, *and* is claimed to be the only coordinator with this non-boolean interpretation (Winter 2001: 33). Any other coordinator ought not to be able to form the proper set of singular individuals that is needed to license a collective predicate. *Or* is not able to; neither is *and/or*.

- (45) a. Kyle and Pat met at the park.

- b. *Kyle or Pat met at the park.
- c. *Kyle and/or Pat met at the park.

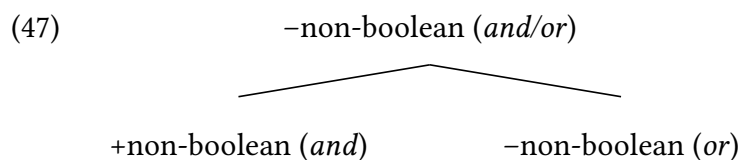
There are various other collective predicates that require different types of plural subjects. *Swarm* for example, is a verb that is felicitous with a subject that is not only plural but a mass of small organisms. Some predicates require the plural subject to be individuatable, or divisible into individuals. For example, bodily processes like *coughed* or mental state verbs like *knew the answer* can only occur on an individual, animate basis. In *The committee coughed*, the only possible interpretation is one where each individual on the committee coughs; the committee ‘as a whole’ cannot cough. *And/or* is unable to create the appropriate plurality for any of these predicates.

(46) John and/or Bill...

- a. are identical
- b. are a motley crew.
- c. swarmed / teemed / interspersed / en masse
- d. en masse
- e. were plentiful / abundant / homogenous
- f. milled around
- g. border each other
- h. have strict parents

This tell us two things. First, *and* remains the only non-boolean conjunction. Second, *and/or*

does not inherit the non-boolean interpretation from *and*. The lexical process that generated *and/or* in the first place, presumably the orthographic juxtaposition of *and* and *or* mediated by the slash punctuation mark, either fails to preserve the non-boolean interpretation in the result, or the presence of the *or* cancels out the non-boolean interpretation. This is illustrated in the inheritance diagram. Suppose there is a coarse feature $\pm non\text{-boolean}$ that specifies whether a conjunction (or any word) is able to have a non-boolean interpretation. When combined with orthographic slash, the resulting word must be *-non-boolean*.



All the examples show that *and/or* is unable to create the non-boolean interpretation: it is not ambiguous (\pm) or some other combination of (+) and (-) values, its value is clearly *-non-boolean*. Why should the output be *-non-boolean* and not *+non-boolean*? According to Winter (2001: 33), *+non-boolean* is the marked feature, appearing only on one conjunction of the many in English. At this point we can assume the orthographic slash takes the unmarked option.

The fact that *and/or* is non-boolean affects its interaction with other types of predicates, such as those including relational modifiers and anaphors.

Relational modifiers include adjectives like *same* and *different*. Rather than specifying a set property (*red* denotes the set of red entities), relational adjectives specify a relation between two entities. These are two possible readings of relational adjectives: an EXTERNAL reading or an

INTERNAL reading (Heim 1985). The external reading establishes a relationship between some previously-mentioned discourse referent. The sentence *John sang the same song* has only an external reading: he must be singing the same song as someone previously mentioned. In sentences with plural subjects, these modifiers are ambiguous between the two readings. In the sentence *John and Mary sang the same song*, the external reading is the one where John and Mary are singing the same song as someone else previously mentioned, and the internal reading is the one where John and Mary are singing the same song as each other. For these types of sentences with a coordinated subject: if the coordinator is *and*, the relational modifier is ambiguous, as in (8a). If the coordinator is *or* (8b) or *and/or* (8c), the relational modifier has only the external reading.

- (48) a. Ronald and Sandy sang the same song. [Internal or External reading]
 b. Ronald or Sandy sang the same song. [External reading only]
 c. Ronald and/or Sandy sang the same song. [External reading only]

This is explained by the fact that *and/or* is unable to create the plurality necessary to make an internal reading available.

Anaphors exact similar requirements on their antecedents. If the anaphor is plural *themselves* or reciprocal *each other*, the antecedent must also denote a plurality (Lebeaux 1983). Like collective predicates, there are multiple strategies for forming the appropriate plurality: the antecedent can be a plural noun like *students* in *The students congratulated themselves*, or the antecedent could be a conjoined noun like *John and Mary* in *John and Mary like each other*. In the conjoined antecedent, the coordinator must be *and* (49a), and not *or* (49b) nor *and/or* (49c).

- (49) a. Alex and Kris saw each other.
 b. *Alex or Kris saw each other.
 c. *Alex and/or Kris saw each other.

The failure of *and/or* to create a plurality means that it cannot license collective predicates, the internal readings of relational modifiers, or plural or reciprocal expressions. We continue examining the properties of other expressions that interact with coordination.

Coordinated expressions followed by the adverb *respectively* (called *Interwoven Dependency Constructions*, or IDCs in Zhang (2010: 169) also require the coordinator *and*. In a well-formed IDC like (10a), the adverb *respectively* forces the coordinated predicate to distribute: *Kim sang, and Sandy danced*. There is no equivalent for other coordinators *or* (10b) and *and/or* (10c).²⁰

- (50) a. Kim and Sandy sang and danced, respectively.
 b. #Kim or Sandy sang and danced, respectively.
 c. #Kim and/or Sandy sang and danced, respectively.

There are few environments where *or* is acceptable while *and* is not, but we can construct predicates with coordinated complementary antonyms to create a potential contradiction if the wrong coordinator is used. *And* gives rise to a contradiction (11a), while *or* does not (11b). *And/or* in this case also seems contradictory (11c), since it still admits the possibility of John being *alive*

²⁰ See Eggert (2000) for discussion of potential counterexamples, like *Grant or Gertrude might have drunk beer or wine, respectively* (104). Eggert would however agree that ‘clearly disjunctive’ cases like (8b) are out.

and dead.

- (51) a. #John is alive and dead.
 b. John is alive or dead.
 c. #John is alive and/or dead.

One function that *or* has is the so-called ‘designation alternation’, which can be used to link two names for the same entity (Lang 1984: 104). This is also called specifying coordination, where both conjuncts of a coordination refer to the same thing (De Vries 2006, De Vries 2009b: 13).

- (52) a. The Hague, or ‘s Gravenhage’, was the capital of the Netherlands.
 b. In Reykjavik there live 70,000 people or 1/3 of all Icelanders.
 c. The trousers are about 2 inches or 5 cm too short.

De Vries analyzes such examples as a conventional coordinate structure, nothing that normal coordinators like *or* can be used, suggesting this is simply coordination. He proposes that the structure of such specifying coordinations involves nothing more than the standard Coordination Phrase (or &P) that I have been assuming here as well, as in (53).

- (53) [CoP [DP our boss] [Co' [&: or] [DP our primus inter pares]]] (De Vries 2006: 243)

Specifying coordinations seem less natural with *and*, which becomes especially apparent with the numerical examples. All are marked anomalous under the intended interpretations indicating

no more than 70,000 people and no more than 2 inches.

- (54) a. #The Hague, and 's Gravenhage, was the capital of the Netherlands.
 b. #In Reykjavik there live 70,000 people and 1/3 of all Icelanders.
 c. #The trousers are about 2 inches and 5 cm too short.

Designation alternation becomes even stranger with *and/or*, another illustration where *and/or* patterns with the more constrained coordinator.

- (55) a. #The Hague, and/or 's Gravenhage, was the capital of the Netherlands.
 b. #In Reykjavik there live 70,000 people and/or 1/3 of all Icelanders.
 c. #The trousers are about 2 inches and/or 5 cm too short.

And and *or* behave differently when in the scope of quantifiers (Champollion 2016). Plural nouns conjoined with *and* are ambiguous between *distributive* and *non-distributive* readings. Plural nouns connected with *or* are not; they have only the non-distributive reading. Similarly, *and/or* is not ambiguous; it has only the non-distributive reading. As an example, imagine reading these instructions for a task on gathering animals for a team. The total number of expected animals depends on the coordinator. With *and*, it is possible to interpret (56a) as asking for 20 animals (distributive reading; 10 dogs and 10 cats) or just 10 animals (non-distributive; 10 animals, could be any mix of dogs or cats). With *or*, it is only possible to interpret (56b) as asking for 10 animals. Same with *and/or* (56c).

- (56) Instructions: We are forming a team. Please select...
- a. Ten dogs and cats. [Distributive: 20 animals, Non-distributive: 10 animals]
 - b. Ten dogs or cats. [~~Distributive: 20 animals~~, Non-distributive: 10 animals]
 - c. Ten dogs and/or cats. [~~Distributive: 20 animals~~, Non-distributive: 10 animals]

3.4.2 Correlatives

Coordinators can sometimes appear with correlative elements like *both* and *either*. The element *both* must co-occur with *and*, and is analyzed as forcing the conjuncts to receive individual theta roles, forcing an individual and separate interpretation of the conjuncts, thus leading to a multiple-event interpretation (Progovac 1999). Each of the sentences in (57) illustrate this use of *both*.

- (57) a. **Both** Maria **and** Peter will bring a bottle of wine.
- b. I visited **both** Maria **and** Peter.
- c. I gave a rose to **both** Maria **and** Peter. (Progovac 1999: 142)

The element *either* must co-occur with *or*, and is analyzed as marking the scope of disjunction (Larson (1985), but see Schwarz (1999) and Han & Romero (2004) for alternative analyses). Some examples demonstrating the use of *either* are in (58).

- (58) a. Sherlock pretended to be looking for **either** a burglar **or** a thief. (Larson 1985: 221)
- b. John believes that Bill said that Mary was **either** drinking **or** playing video games.

(Larson 1985: 222)

It is not possible to combine a correlative with the wrong coordinator.

(59) ***Either** Maria **and** Peter will bring a bottle of wine.

(60) *Sherlock pretended to be looking for **both** a burglar **or** a thief.²¹

This predicts that *and/or* is incompatible with *either* and *both*. However, the data do not support such a strong incompatibility. Some correlatives have been found co-occurring with *and/or* in the Corpus of Contemporary English (COCA; Davies 2008).

(61) Laity as well as priests can be **both** scholars **and/or** prophets

(62) more than half of the European adventives are **both** predaceous **and/or** phytophagous

(63) European animals are **both** predatory **and/or** carnivorous.

These are all published texts, and appear to concern serious or scientific subject material. In (63), it seems the options for European animals are that they can be (a) predatory, (b) carnivorous,

²¹ Perhaps because of the strong correlation that the correlative elements have with the forthcoming, matching coordinator, readers might expect this sentence to continue. This is the structural prediction in action, discovered by Staub & Clifton (2006), who showed that, on encountering a correlative *either*, reading the ensuing *or* is faster. Harris & Rich (2017) also showed that encountering the wrong coordinator (*either... and*) causes a slowdown.

or (c) both predatory and carnivorous. The distinction between (c) and the general conjunctive interpretation of *and/or* is not clear, but perhaps the author believed the co-occurrence of these two properties, being *predatory* and *carnivorous*, is unusual in some way, and wished to emphasize that fact. Or perhaps European animals contrast with some previously-mentioned animals that are distinctly predatory *but not* carnivorous. In any case, it is documented that *both... and/or* can occur, and is acceptable, at least in corpus examples.

However, no *either...and/or* patterns were found in COCA. There we no examples like the following.

(64) *Priests can be **either** scholars **and/or** prophets.

Indeed, (64) sounds much worse than (61). There appears to be a fatal incompatibility with *either* and *and/or*. Suppose *either* does mark the scope of disjunction (Larson 1985). Perhaps there is no way to reconcile a scope-marker like *either* with the conjunctive interpretation of *and*. On the other hand, under Progovac (1999)'s analysis, the immediate function of *both* is to force the conjuncts to receive individual theta roles, meaning that they cannot be interpreted as a group. *Maria* and *Peter* receive separate, agentive-type theta roles, meaning each of them is an agent of separate bringing-events.

(65) **Both** Maria **and** Peter will bring a bottle of wine.

This does not cause a fatal incompatibility in the case of *and/or*.

(66) ?**Both** Maria **and/or** Peter will bring a bottle of wine.

If *both* forces *Maria* to receive one agent theta role, and *Peter* another, it is still coherent just in case we take the disjunctive interpretation of *and/or*, where only one of them is an agent, and there is only one bringing-event.

It is also possible that the co-occurrence of *both... and/or* and the impossibility of **either... and/or* can be attributed to a linear repair strategy. Speakers or writers may produce *both*, intending to follow up with an *and*, but instead want to add on the *or* merely to indicate their uncertainty. They want to retreat from committing to *both*. On the other hand, it is less likely that speakers produce *either*, then intend to follow up with *or*, but then accidentally produce a coordinator *and/or* starting with the incorrect one (*and*). Under this analysis, we might expect to see a few examples of *either... or/and*. Of the mere 15 occurrences of *or/and* in COCA,²² none of them co-occur with *either*. The absence of such a co-occurrence supports a linear repair strategy theory as well.

3.4.3 ATB *wh*-questions

Ross (1967: 175) introduced the idea of *across-the-board* transformations, which appear to circumvent the Coordinate Structure Constraint by modifying, reducing, or moving things from conjuncts, but only if the transformations happen to all conjuncts; hence the name *across-the-board*. A sentence like (67a) could be reduced using an across-the-board application of conjunction re-

²² Of the 15 tokens of *or/and*, 12 are published in academic journals, and 3 are transcripts of news reports, highly spontaneous and unstructured utterances.

duction into (67b), so long as this transformation affects all conjuncts. If it skipped a conjunct, as in (67c), the sentence would be unacceptable.

- (67) a. Tom picked **these grapes**, and I washed **these grapes**, and Susie will prepare **these grapes**.
- b. Tom picked, and I washed, and Susie will prepare **these grapes**.²³
- c. *Tom picked, and I washed **some turnips**, and Susie will prepare **these grapes**. (Ross 1967: 177)

Williams (1978: 31) extended this idea, observing that it is possible to extract *wh*-words from both conjuncts at the same time with across-the-board movement (ATB movement).

(68) Who did John see and Bill hit? (Williams 1978: 31)

(69) Which candidate did John promote and Bill interview?

ATB movement typically requires the extracted element to be ‘the same’; call it an Identity Requirement on ATB movement (Munn 1998, 1999). The interpretation of (69) can only have the meaning in (70a), where the same candidate was promoted and interviewed. The sentence does not seem to have the meaning in (70b), where two different candidates are involved.

²³ Some speakers do not accept this, and require deletion of the non-final coordinators as well. This would be preferable to some speakers: *Tom picked, I washed, and Susie will prepare these grapes*.

- (70) a. Which x , x a candidate, such that John promoted x and Bill interviewed x
- b. Which x , x a candidate, such that John promoted x and which y , y a candidate, such that Bill interviewed y

The use of other coordinators in ATB questions has not been explored. This identity requirement holds with other coordinators as well, *or* and *and/or*.

(71) Which candidate did John promote _ or Bill interview _ ?

(72) Which candidate did John promote _ and/or Bill interview _ ?

The *or* question is asking about a single candidate, and what seems to be at issue is whether promoting or interviewing took place. With *and/or*, it again picks out a single candidate, and the speaker is not sure if promoting or interviewing, or both, took place. The interpretation of such ATB questions must then be able to enforce the Identity Requirement not only on questions with *and* but also those with *or* and *and/or*.

The Identity Requirement holds even for plural or group nouns, and when the extracted wh-phrase is a subject. The group of people must be the same one that was gathered and dispersed. And a single person is gathering (soldiers) and dispersing (medics).

(73) Which people did John gather _ { and | or | and/or } Bill disperse _ ?

(74) Which person _ quickly gathered the soldiers { and | or | and/or } _ slowly dispersed the medics?

There are however apparent exceptions to the Identity Requirement, where it is possible to answer a single *wh*-word question with multiple answers, called the *paired reading* in Munn (1998).

(75) ATB-questions

- a. Where did Mary vacation and Bill decide to live? (Munn 1999: 421)
- b. How tired did Bill look and Mary seem? (Munn 1999: 421)
- c. Why did Bill leave and Fred arrive? (Munn 1999: 421)

In (75a), it is possible to read the question as requesting two locations, one where Mary vacationed and one where Bill will live. The following are possible answers to the questions.

(76) Answers to ATB-questions

- a. Mary vacationed in Paris and Bill decided to live in Toronto. (Munn 1999: 421)
- b. Bill looked exhausted and Mary looked okay. (Munn 1999: 421)
- c. Bill left because Fred arrived and Fred arrived because he had a meeting. (Munn 1999: 421)

If we look at other coordinators, a difference arises. With *or*, the paired reading no longer seems available. For the question (77), it is not possible to answer with a paired answer, giving distinct locations for each conjunct (78a). It is possible however to give the identity answer, with the same location for each conjunct (78b).

- (77) Where did Mary vacation or Bill decide to live?
- (78) a. # Mary vacationed in Toronto and Bill decided to live in Quebec. (paired reading)
- b. Mary vacationed, and Bill decided to live in Toronto. (identity reading)²⁴

The impossibility of the paired answer (78a) shows that disjunctive ATB wh-questions do not have a paired reading. The events are not at issue, the location is. The questioner is interested in *where* either vacationing or living will take place. It is not felicitous to provide a paired answer to this question. I believe a more optimal answer to (77) properly showing focus on the location is a cleft variant, or even a simple single word answer. These answers do not commit the answerer to say whether vacationing or Bill's decision concerned the location; the answers give exactly the information requested, which is a location where one of these things took place.

- (79) a. It was Toronto where Mary vacationed or Bill decided to live. (As an answerer, I don't know or particularly worry about whether vacationing or decisions happened there)
- b. Toronto. (...is where vacationing happened or decisions were made. Again, as an answerer, I either don't know or care about which event happened, but I know that

²⁴ It is quite awkward even to answer these questions, which is the intuition Haida & Repp (2010) are following when they conclude disjunctive questions are impossible to answer. However, I do not believe disjunctive ATB wh-questions are unanswerable; they are answerable because of the possibility of an Identity answer (78b). Answering the questions with *or* seems outright uncooperative (# *Mary vacationed in Toronto or Bill decided to live in Quebec.*) So the answer must be rephrased with *and*. Although the answer requires a different coordinator, I believe the relevant point about paired vs. identity readings is still made.

one of them happened).

And/or works the same way as *or*. For the question in (80), there is no paired reading, because it is not possible to answer pairing a location with each predicate (81a). It is however possible to answer on an identity reading (81b), or with the focused cleft (81c), or single word answer (81d).

(80) Where did Mary vacation and/or Bill decide to live?

- (81) a. # Mary vacationed in Toronto and Bill decided to live in Quebec. (paired reading)
 b. Mary vacationed, and Bill decided to live in Toronto. (identity reading)
 c. It was Toronto where Mary vacationed and/or Bill decided to live.
 d. Toronto. (is where Mary vacationed and/or Bill decided to live.)

Just like with *or*, the identity answers (81c) and (81d) answer the question (80) by providing a location where the answerer believes some combination of vacationing and deciding to live happened.

The problem is then, to explain why conjunctive ATB-questions have paired readings, as in (75a), but disjunctive and *and/or* ATB-questions never have paired readings.

I first turn to the grammatical status of disjunctive wh-questions. Some have assumed that disjunctive wh-questions are simply impossible. Krifka (2001: 14) contrasts the easy acceptability of conjoining questions (82) with the ‘uncertain status’ of disjoining questions (83) (judgments are the original authors’).

(82) Which dish did Al make and which dish did Bill make? (Haida & Repp 2010: 63)

(83) a. *Which dish did Al make or which dish did Bill make? (Haida & Repp 2010: 63)

b. ??Where do you live or who did you marry? (Szabolcsi 2016: 4)

Even in the literature the status of (83) is not uncontroversial. Szabolcsi (1997) marks it as grammatically unacceptable, while Krifka (1990), Haida & Repp (2010), and I consider it grammatically acceptable. If disjunctive questions like (83) were universally unacceptable, then it would be more straightforward to explain why paired answers are unavailable for disjunctive ATB wh-questions. If I were to speculate, presumably (82) is in an abstract sense an earlier stage of the derivation of (77), before two instances of the wh-phrase undergo ATB movement. If that stage (83) is unavailable then the related paired interpretation is as well.

There are at least three analyses of the interpretation of (83). The first is originally proposed by Szabolcsi (1997), who marks (83) as unacceptable and holds that disjoined questions like (83) are really a type of repair, where the speaker retracts the first question and replaces it with the second.

(84) Which dish did Al make? Or, which dish did Bill make? (Haida & Repp 2010: 64)

The felicitous answer to (83) being the answer to the second question. This objection can be discarded for our purposes. The repair interpretation is not a feasible route for ATB-questions. A repair that results in an apparent ATB question is difficult to imagine, and may look like the following:

(85) *Which dish did Al make? Or, Bill make?

Even with extreme repair prosody, this seems impossible to imagine being felicitous in any conversational setting even with the most recalcitrant speaker.²⁵

The second analysis of (83) comes from proposals that assert disjoined questions do exist, but always have a special interpretation. This disjoined question is argued to be felicitous by [Belnap & Steel \(1976\)](#).

(86) Have you ever been to Sweden or have you ever been to Germany?

These are argued not to be truly disjoined questions. [Krifka \(2001\)](#) suggests that it is a mistake to analyze these (and (83)) as disjoined questions since they do not give the addressee an actual

²⁵ It seems unquestionably plausible to repair with just the subject: *Which dish did Al make? Or Bill?* It is interesting that this small example seems even less likely to result in a paired interpretation, as it seems more likely to be a case of second conjunct extraposition

(i) Which dish did [Al t_i] make, [or Bill] _{i}

Rather than forward ellipsis of most of the second question.

(ii) Which dish did Al make, or ~~which dish did Bill make~~

If such a deletion is even possible.

choice. If the addressee has been to both Sweden and Germany, but provides the answer *I have been to Sweden*, the answer is infelicitous. The question can be answered with *yes* or *no*. That is, you cannot really disjoin questions, which are a type of speech act. Rather, you are disjoining the propositions. Krifka compares this to other speech acts, like baptisms and insults.

(87) #I hereby baptize you John, or I hereby baptize you Mary.

(88) #You are an idiot, or you are a crook!

(87) does not perform the baptism of either John or Mary, and (88) is not an insult, but rather a description. Krifka concludes that while speech acts can be conjoined, they cannot be so readily disjoined. Therefore, anything that appears like a disjunction of a question, like (83), must be analyzed as a retraction and repair, or with a special interpretation, such as disjoining at the lower, proposition level and not the speech act.^{26, 27}

²⁶ See Haida & Repp (2010) for further discussion.

²⁷ There are additional complications about disjunction under questions. Disjunctions can sometimes indicate ‘designation alternation’ as in (i). This particular use of *or* cannot for example be split across separate questions (ii) (unless the speaker genuinely does not know they are alternative designations).

(i) Is the Hague or 's-Gravenhage the capital of the Netherlands?

(ii) *Is the Hague or is 's-Gravenhage the capital of the Netherlands?

The third analysis, proposed by [Haida & Repp \(2010\)](#), is that disjoined questions exist, can be syntactically and semantically defined, but they are always pragmatically unanswerable. A question disjunction like (89) puts the listener in a quandary.

(89) How did Paul get home or when did Paul get home? ([Haida & Repp 2010: 65](#))

[Haida & Repp \(2010\)](#) argue that it is not possible to answer this question without violating Grice's Maxim of Quantity. The questioner is asking a question for which there is no maximally informative answer. Here are two possible answers in (90a) and (90b).

- (90) a. Paul got home by bus or Paul got home at 3 am.
b. Paul got home by bus and Paul got home at 3 am.

(90a) violates the Maxim Of Quantity because it is under-informative. It does not specify which proposition the answerer believes to be true, and if it is interpreted as exclusive disjunction, it is leaving the other question unanswered. (90b) would be more informative, and commits the answerer to both propositions, but the questioner did not ask for two commitments.

[Munn \(1999\)](#) suggests an analysis that permits ATB questions to have exceptions to the Identity Requirement. Consider the question in (91).

(91) Which man did Bill kill *t* on Tuesday and Fred kill *t* on Wednesday? ([Munn 1999: 423](#))

The requirement for obtaining the paired reading with two victims is that the argument (trace)

must be c-commanded by an appropriate binder. In this question, Bill and Fred are the binders, and they c-command the trace. Because there are two separate c-command relationships, it is possible to construe two separate binding relationships and two answers, one for each man.²⁸ Syntactically speaking, *or* maintains this requirement.

(92) Which man did Bill kill *t* on Tuesday or Fred kill *t* on Wednesday?

In this sentence, Bill and Fred still c-command the trace, so there are still two separate c-command relations and it should be possible to generate the separate reasons.

I propose that [Haida & Repp \(2010\)](#) are on the right track on their view of basic disjunctive questions being pragmatically intractable and this may explain the behavior of ATB counterparts. Since ATB wh-questions with disjunctions only have single answers, not paired answers, it is possible to give a felicitous answer, and the pragmatic objection is removed. A disjunctive question with paired answers is unanswerable, but a disjunctive question with a single answer–ATB questions–is easily answerable.²⁹

²⁸ This enters into the discussion about biunique relations and violations of the Bijection Principle (1-to-1 relationships), but these violations are general to coordination and the present data do not move toward solving the problem.

²⁹ Both of these questions probably suffer from redundancy effects as well. It's independently unacceptable to ask redundant questions.

(i) #What is the capital of Michigan and what is the capital of Michigan?

(93) How did Paul get home or when did Paul get home?

(94) Which dish did Al make or Bill make?

One remaining issue is embedded ATB questions. [Haida & Repp \(2010\)](#) also observe that there are contexts where wh-question disjunctions improve, for example embedded under negation.

(95) The police did not find out how Paul got home that night or when Paul got home that night.

I find that ATB-questions are impossible, but others have found them acceptable.

(96) ?The police did not find out which man Bill killed on Tuesday or Fred killed on Wednesday.

(97) ?The police did not find out which dish Al made or Bill made.

And compare the relative oddness of of fully disjunctive, semi-redundant questions, compared to their reduced counterparts. I anticipate the following discussion by showing embedded questions too.

- (ii)
 - a. #What is the capital of Michigan or what is the capital of California?
 - b. #I wonder what the capital of Michigan is or what the capital of California is.

- (iii)
 - a. What is the capital of Michigan or California?
 - b. I wonder what the capital of Michigan or California is.

It is possible to have disjunction in an embedded context, generally speaking.

(98) The police did not find out which dish Al or Bill made.

But not in ATB fashion.³⁰

Another perspective is that the situation is reminiscent of the discussion in [Johnson \(2000\)](#) concerning gapping with quantifiers in each conjunct. When there is gapping and determiner sharing, the quantified phrase seems to gap over the disjunction.

(99) a. Few dogs eat Whiskas or few cats eat Alpo. ([Johnson 2000: 75](#))

b. Few dogs eat Whiskas or cats Alpo. ([Johnson 2000: 75](#))

The sentences in (99) have the respective interpretations in (100).

(100) a. Either it's not the case that many dogs eat Whiskas or it's not the case that many cats eat Alpo. ([Johnson 2000: 75](#))

b. It's not the case that many dogs eat Whiskas or that many cats eat Alpo. ([Johnson 2000: 75](#))

Johnson takes it to mean that gapped variants involve obligatory ATB-movement, allowing the quantified phrase *few* to scope over the disjunction. In the non-gapped version there is no such movement, so *few* remains within each disjunct and does not scope over it.

³⁰ See [Haida & Repp \(2010\)](#) for more discussion on these sentences and proposed explanations for their behavior.

Likewise in the embedded ATB-questions, ATB-movement is clearly interacting with the interpretation to such a degree that they become unacceptable when embedded.

- (101) a. The police did not find out which dish Al made or which dish Bill made.
 b. ??The police did not find out which dish Al made or Bill made.

If the *wh*-phrase, like the quantified phrase *few dogs*, is in a sense scoping over the disjunction, perhaps that creates an intractable interpretation.³¹

ATB-questions are another situation where *and/or* patterns like the more restricted coordinator. ATB *wh*-questions with *and* allow exceptions to the Identity Requirement and allow paired answers. ATB *wh*-questions with *or* do not allow paired answers, and so *and/or* does not allow them.

³¹ A related set of problems is the correlatives. It is possible to left-dislocate the first part of a correlative conjunction like *neither... nor*.

- (i) The police neither found out which dish Al made, nor which dish Bill made.

But it is not possible to do apparent ATB-movement here.

- (ii) *The police neither found out which dish Al made, nor Bill made.

Correlative conjunctions are discussed at length in Larson (1985), Schwarz (1999), Han & Romero (2004).

3.4.4 Gapping and Negation

Gapping is a phenomenon where material in the middle of a conjunct is deleted, as in (102a) and (102b). In (102a) the verb *ate* is unpronounced in the second conjunct, yet is easily understood there. (102b) shows gapping occurs over multiple conjuncts, as each occurrence of *plays* after the first can be deleted without interpretive consequence.

- (102) a. Max ate the apple and Sally the hamburgers.
 b. Ivan plays krummhorn, Boris fluegelhorn, and Schwarz bassethorn. (Jackendoff 1971: 21)

Gapping is restricted to coordinations and comparatives (Jackendoff 1971: 22). As discussed in Repp (2009), gapping works best with *and*, *or*, and *nor* (Jackendoff 1971, McCawley 1993), but is also found with the conjunctive use of *then* (Johnson 1996/2003). I find gapping also is acceptable with *and/or*.

- (103) a. Sam plays the sousaphone, and Max the saxophone.
 b. Either Sam plays the sousaphone or Jekyll the heckelphone.
 c. Sam doesn't play sousaphone, nor Medusa sarrussophone. (Jackendoff 1971: 22)
- (104) Sam plays the sousaphone, and/or Max the saxophone.

There are instances of gapping with *but* but they are restricted to certain environments. Contrasting the subject and object is not sufficient as in typical gapping with *and*, but contrasting the

subject and some adjunct is acceptable (Repp 2009: 8).

- (105) a. #John ate rice but Jim potatoes.
 b. The Beatles played on Monday but Elvis on Tuesday. (Repp 2009: 8)

Much has been written about the typical gapping constructions with *and* and *or*, and these investigations reveal some differences between *and* and *or* that are again brought into relief when considering *and/or*.

Gapping in the presence of negation or modals shows different behavior depending on the coordinator used. First we focus on negation. Consider sentences with different types of coordinators under negation.

- (106) a. Tom didn't drink a beer and a martini.
 b. Tom didn't drink a beer or a martini.
 c. Tom didn't drink a beer and/or a martini.

The sentence with *and* in (106a) has two interpretations.

- (107) a. It is not the case that Tom drank a beer, and it is not the case that Tom drank a martini. (He drank a cider.)
 b. It is not the case that Tom drank both a beer and a martini (Tom may have just drank a beer.)

The sentence with *or* in (106b) only has one of these interpretations.

- (108) a. #It is not the case that Tom drank a beer, or it is not the case that Tom drank a martini. (In reality, he drank a beer.)
- b. It is not the case that Tom drank a beer or a martini. (He drank a cider.)

It is also possible to paraphrase the second meaning by distributing the negation over the disjunction, known as de Morgan's Law. The only possible meaning for negation over disjunction is the one in (109).

- (109) It is not the case that Tom drank a beer, AND it is not the case that Tom drank a martini.

Under de Morgan's Law the meanings of (108b) and (109) are equivalent, and the paraphrase (109) is easier to read and confirm that the disjunctive example (106b) clearly has this meaning. It does not have the meaning in (108a). This meaning would be evaluated as true just in case Tom drank a beer. It would also be true just in case Tom drank a martini. This is not what (106b) actually means.

In (106c) we have a sentence with negation and *and/or*. The meanings are as follows.

- (110) a. #It is not the case that Tom drank a beer, and/or it is not the case that Tom drank a martini. (This meaning would be true if Tom drank a beer.)
- b. It is not the case that Tom drank a beer and/or a martini. (This would be satisfied if Tom drank a cider)

The only possible interpretation is in (110b), which is equivalent to the *or* interpretation. If someone said *Tom didn't drink a beer and/or a martini*, my understanding is simply that he did not drink either of them. If I later found out that Tom drank a beer, I would consider the speaker to be lying. But that is the meaning spelled out in (110a).

In sum, when negation interacts with different coordinators, *and* results in two meanings, but *or* results only in one, and so does *and/or*.

We turn to sentences with both gapping and negation. The facts extend to the gapping interpretations. Siegel (1984) showed that it is possible to have negation inside conjuncts and delete the negation and verb under gapping. This is possible for the coordinators *and*, *or*, and *and/or*.

- (111) a. Ward can't eat caviar and his guest beans. (Siegel 1984: 524)
 b. John can't see Harry or Bill Sue. (Van Oirsouw 1987)
 c. Sam can't eat bread and/or Max aioli.

Gapping examples in (111) involve a very different structure than the examples with negation but not gapping (106a)–(106c), where the negation structurally scopes over the disjunction in the sentence. But in gapping sentences, the negation is not in an obvious position to gap over the conjunction, since it is contained within the first conjunct.

(112) Tom didn't drink [a beer or a martini].

(113) [Ward can't eat caviar] or [Anna beans].

Johnson (2000) simply describes this ability for negation to scope over the coordinator in the following generalization:

- (114) If a modal or negation Gaps with a following verb, then it may scope over the coordination or be understood in each conjunct (adapted from Johnson 2000: 27).

This describes the observation in Johnson (2000) that each of sentences containing gapping and negation have the following meanings.

- (115) Ward can't eat caviar and his guest beans.
- a. It's not possible for Ward to eat caviar and his guest eat beans.
 - b. Ward can't eat caviar and his guest can't eat beans.

The central difference is with disjunction. With disjunction, the negation *must* scope over the disjunction; it is not possible to understand the gapped sentence as containing negation within both conjuncts (Van Oirsouw 1987, Hulseley 2008).

- (116) John hasn't seen Harry or Bill Sue. (Van Oirsouw 1987: 208)
- a. It's not the case that John has seen Harry or that Bill has seen Sue. (Under the meaning neither is true)
 - b. #John hasn't seen Harry or Bill hasn't seen Sue. (Under the meaning one of these could be true)

While conjunction is ambiguous between two meanings, disjunction only has the wide scope meaning, where the negation scopes over the conjuncts. It cannot be distributed over the conjuncts, as in (b). The correct interpretation can be paraphrased using de Morgan's Law, which distributes the negation over each conjunct.

$$(117) \quad \neg(P \vee Q) \vdash (\neg P \vee \neg Q)$$

By this Law, (116a) can be paraphrased as:

(118) It is not the case that John has seen Harry, **and** it is not the case that Bill has seen Sue.

And this is the only interpretation of the disjunction gap. Turning to *and/or*, we expect that *and/or* will again take the more restricted option and have only the single interpretation, the same one that disjunction has. Indeed, negation does scope over the coordinator.

(119) Sam can't eat bread and/or Max nuts.

- a. It's not the case that Sam can eat bread and/or Max nuts.
- b. Sam can't eat bread and/or Max can't eat nuts.

The sentence (119) indicates the speaker knows that Sam and Max come from a family with dietary restrictions, but doesn't know the exact combination of dietary restrictions: Sam could be gluten-free, or Max could have a nut allergy, but he doesn't know which. In other words, the speaker believes *Sam can eat bread and/or Max nuts* to be false, which is the meaning in (119a).

The complication in these examples is that the meaning in (119b) also seems to be available, and actually seems to be the more straightforward paraphrase of the meaning of (119). This is unexpected. We would expect given all other sources of information that *and/or* pattern with *or* in disallowing the distributed meaning, but it doesn't. This may be one of the exceptions to the generalization I have been drawing, in that it is a truly idiosyncratic behavior of *or* alone that has developed separately from its existence as a component of *and/or*. Hulsey (2008) discusses in detail the exact scenario of gapping in disjunctions, and ends up developing a unique semantics just for this construction. Johnson (2000) and Repp (2009) also provide a syntactic analysis of negation and gapping and this is assuredly a point for future investigation.

3.4.5 Law of Coordination of Likes

As we saw in the previous chapter, *slash* is subject to a number of syntactic constraints that are specific to coordination, including the Law of Coordination of Likes (LCL; see section 2.4.3) and the Coordinate Structure Constraint (CSC; see section 2.4.4). Just like I did for *slash*, I look at these constraints and what we can discover by applying this coordinator *and/or* to contexts where they might apply.

Chomsky (1957: 35) noted that conjoined elements must be 'of the same type'.

- (120) a. The scene of the movie and of the play was in Chicago.
 b. *The scene of the movie and that I wrote was in Chicago.

In (120a) the conjuncts are 'of the same type', and in (120b) they are not. Chomsky did not

elaborate on what constitutes the ‘same type’. So [Schachter \(1977\)](#) formalizes this observation in the following constraint, which he calls the Coordinate Constituent Constraint:

- (121) The Coordinate Constituent Constraint (CCC). The constituents of a coordinate construction must belong to the same syntactic category and have the same semantic function.

[Schachter](#) specified that conjuncts have to have the same category and, additionally, the same semantic function. The term Law of Coordination of Likes (LCL) was later coined by [Williams \(1981\)](#) to describe the same general constraint and is the more well-known term in contemporary literature.

There are a number of cases where the LCL seems not to be respected, discussed in [Sag et al. \(1985\)](#) and [Sag \(2003\)](#).

- (122) a. Pat is wealthy and a Republican. ([Sag 2003: 267](#))
 b. Kim likes bagels and is happy. ([Sag 2003: 267](#))
 c. That was a rude remark and in very bad taste. ([Sag et al. 1985: 117](#))

These apparent exceptions to the LCL are sometimes argued to be coordinating a Predicate Phrase, rather than separate categories such as (predicate) adjective and noun phrase ([Bowers 1993](#)). The Predicate Phrase is an umbrella category that subsumes predicative adjectives and noun phrases and other possible predicates, and allows preservation of a strict form of the LCL. All of these examples are shown only with *and* as a coordinator, and these all seem acceptable with *or* and

and/or.

One sentence type that reveals a difference in coordinators is any one where the second conjunct has a pronoun that refers to the first conjunct. In (123a) the pronoun ‘it’ refers to Pat’s being *a Republican*. This just doesn’t make sense when paired with disjunction (123b), let alone with *and/or* (123c).

- (123) a. Pat is [a Republican] and [proud of it]. (Sag et al. 1985: 117)
- b. ?Pat is [a Republican] or [proud of it].
- c. ?Pat is [a Republican] and/or [proud of it].

Suppose it were the case that Pat is in fact not a Republican, but rather he was only “*proud of it*”: what would the antecedent of *it* be? With *and/or* the same oddity persists, since the speaker gives the logical possibility for Pat to either *be Republican* or *proud of it*, and taking the second option is odd.

3.4.6 Coordinate Structure Constraint

Ross (1967) discovered a class of restrictions on extracting materials from coordinate structures. It is not possible to form relative clauses or wh-questions from within coordination.

- (124) a. *The lute which Henry plays and sings madrigals is warped. (Ross 1967: 160)
- b. *Which trombone did the nurse polish and the plumber computed my tax? (Ross 1967: 160)

From these examples, Ross formulated the following constraint.

(125) The Coordinate Structure Constraint (CSC)

In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct. (Ross 1967: 161)

There are also a number of apparent exceptions to the CSC. They come in two types: across-the-board movement, and so-called asymmetric coordination (Zwart 2005)

Extraction from the coordinate structure is possible if extracting from every conjunct at once, with across-the board movement. This is something Ross himself noted right after introducing the CSC, with examples like (126a)

(126) a. [Tom picked _], and [I washed _], and [Suzie will prepare _], these grapes.³²

(Ross 1967: 177)

b. I wonder who [John likes _] and [Bill hates _] . (Zwart 2005: 1)

These across-the-board exceptions are not sensitive to choice of coordinator. It is possible to circumvent the CSC via ATB with *or* as well as *and/or*.

(127) a. Tom picked, I washed, or Suzie will prepare these grapes.

³² These brackets are meant to illustrate the original rightward across-the-board movement analysis of a right-node-raising sentence such as (126a). For a reappraisal of the movement analysis of RNR see Sabbagh (2007, 2008, 2014).

- b. I wonder who John likes or Bill hates.
- (128)
- a. Tom picked, I washed, and/or Suzie will prepare these grapes.
 - b. I wonder who John likes and/or Bill hates.

This shows that, however it is that ATB circumvents the CSC it does so without being dependent on the characteristics of the coordinator.

‘Asymmetric coordination’ covers a range of exceptions to the CSC. All of the (a) examples show the type of asymmetric coordination in a declarative context. All of the (b) examples show that these asymmetric coordination structures are exceptions to the CSC and allow extraction out of a single conjunct.

(129) Conative coordination

- a. He wanted to try and finish this thesis.
- b. What did he want to try and finish? (Zwart 2005: 1)

(130) Contiguous coordination

- a. He went and addressed the troops.
- b. Who did he go and address? (Zwart 2005: 1)

(131) Scene-setting coordination

- a. He went to the store and bought the whiskey.
- b. What did he go to the store and buy? (Ross 1967: 168)

Unlike ATB circumvention of the CSC, asymmetric coordination is sensitive to the choice of coordinator. If we simply replace *and* with *or*, we lose the appropriate conative, contiguous, and scene-setting functions of the coordinator that would license this asymmetric reading. Arguably, none of these examples are truly asymmetric.

- (132) a. ?He wanted to try or finish this thesis.
 b. *What did he want to try or finish?³³
- (133) a. ?He went or addressed the troops.
 b. *Who did he go or address?
- (134) a. He went to the store or bought the whiskey.
 b. *What did he go to the store or buy?

In contrast to the sentences with *and*, the sentences with *or* are bad when attempting to extract from a single conjunct. The sentence in (134) is interesting because replacing *and* with *or* doesn't immediately result in ungrammaticality (a), but it is unable to set the scene, as it were, for circumventing the CSC (b).

We do not expect *and/or* to fare any better. Despite its containing a component of *and*, it is unable to license the prerequisite conative, contiguous, or scene-setting structure that would license extraction from a single conjunct.

³³ Under the intended interpretation of 'striving to complete'.

- (135) a. *He wanted to try and/or finish this thesis.
 b. *What did he want to try and/or finish?
- (136) a. *He went and/or addressed the troops.
 b. *Who did he go and/or address?
- (137) a. *He went to the store and/or bought the whiskey.
 b. *What did he go to the store and/or buy?

The *and/or* examples, just like *or*, are unable to license the special meanings that would allow the extractions in (b). There is a clear contrast between *and* and *and/or* examples here.

- (138) a. What did he go to the store and buy?
 b. *What did he go to the store and/or buy?

And/or once again takes the more restricted option between the two coordinators. The presence of an *and*-like component within *and/or* is not sufficient to license the CSC circumvention. What if hearers “choose” the *and*-interpretation of *and/or*? Shouldn’t that be enough to allow these special meanings, and therefore allow the extractions? These examples showing that the CSC holds with *and/or*, like (138b), demonstrate that it is not enough. Even though *and/or* gives hearers the “option” to choose a meaning, *and/or* is still considered a complete, unified, separate lexical item than *and*, and does not have the meanings idiosyncratic to the isolated *and*.

To summarize, this exploration of the syntactic behavior of *and/or* confirms the hypothesis

that it has the combination of constraints on the two coordinators *and* and *or*. I have explored its basic distribution and properties with collective predicates, designation alternation, ATB wh-questions, gapping and negation, and the Law of Coordination of Likes.

3.5 Appendix: ‘*and/or*’ in Finnish: *ja/tai*

To expand the investigation beyond English, I look at Finnish (Finno-Ugric), a language which has dedicated coordinators expressing inclusive and exclusive disjunction. If the meaning of *and/or* is able to be reduced to simple inclusive disjunction, we should not expect a language like Finnish to adopt an equivalent of *and/or*, because it would be redundant to its existing inclusive disjunction. Nevertheless, there is abundant evidence that the *and/or* equivalent in Finnish, *ja/tai*, is in robust contemporary use. This reinforces the conclusion that *and/or* means something beyond simple inclusive disjunction; it includes a component of speaker uncertainty.

3.5.1 Finnish coordinators

The conjunctions in Finnish are as follows (all examples from [Karlsson \(2008\)](#)). For the most part, their distribution and use mirror that of English. The basic, neutral combining conjunction is *ja*. These examples show *ja* is capable of combining (139a) NP names and (139b) AP adjectives.

- (139) a. Pentti ja Pirkko olivat naimisissa.
 Pentti and Pirkko be.IMPERF.3PL married
 ‘Pentti and Pirkko were married.’
- b. Kalle on pitkä ja komea.
 Kalle be.3SG long and handsome
 ‘Kalle is tall and handsome.’

The marker *mutta* ‘but’ is the general contrast marker. It can be used to link two contrasting AP adjectives (140a), to introduce a counterexpectation, as in (140b) and (140c). The example in (140c) shows a negative use that inflects for person.

- (140) a. Teuvo on pitkä mutta laiha.
 Teuvo be.3SG long but thin
 ‘Teuvo is tall but thin.’
- b. Mutta sinähän sanoit, että...
 but you.EMPH say.IMPERF.2SG that
 ‘But you did say that...’
- c. Tulen, mutten viivy kauan.
 come.1SG, but.not1SG stay long
 ‘I will come, but I won’t stay long.’

The conjunction *vaan*, also translated as ‘but’, is used solely in corrective contexts, following a negative conjunct (e.g., I ate not chard, *but* spinach.)

- (141) En tule, vaan jään kotiin.
 not.1SG come, but stay.1SG home.ILL
 ‘I won’t come, but I will stay at home.’

The data show that Finnish coordination is generally *syndetic*: there is at least one marker of conjunction when there are two conjuncts.

On to disjunction. Finnish makes a lexical distinction for inclusive and exclusive disjunction.

Vai is exclusive disjunction.

- (142) Juotko kahvia vai maitoa?
 drink.2SG.Q coffee or.excl milk
 ‘Do you drink coffee or milk?’

The expected answer is one of the two choices. *Tai* is inclusive disjunction.

- (143) Juotko kahvia tai maitoa?
 drink.2SG.Q coffee or.incl milk
 ‘Do you drink coffee or milk?’

The expected answer is either ‘yes’ or ‘no’.

Lastly, *ja/tai* is the equivalent of *and/or*. Notice it uses the inclusive *tai*, and not **ja/vai*. In the KORP search of 76.5 million words, *ja/vai* only appears once. It is essentially unused, compared to *ja/tai*.

- (144) Perinnöllistä ja/vai opittua?
 hereditary.PART and/or learned.PART
 Genetic and/or learned?

Ja/tai is very productive and just like other conjunctions, can connect a diverse range of phrase types, from very large to very small. This is demonstrated in the examples below. All language examples in this section are Finnish, taken from a corpus search done on KORP (<https://korp.csc.fi/>) corpus project (Borin et al. 2012).

In these examples, *ja/tai* connects syntactic elements of many sizes: from clauses, verb phrases, noun phrases, and modifiers like adverbs and adjectives. There are examples of *ja/tai* connecting clauses, both introduced by the complementizer *että* ‘that’.

- (145) ... kun niin monet ovat sitä mieltä , että siitä ei ole mitään hyötyä ja/tai
 when so many be.3PL that mind.ABL , that this not.3SG be any benefit and/or
 että sitä ei yksinkertaisesti pystytä tekemään tasapuolisesti?
 that this not.3SG simply be.able do.PASS fairly
 ‘... when so many are of the opinion that it is of no use, and/or that it is simply impossible
 to do fairly?’

Ja/tai can connect verb phrases. Here the verbs happen to be passive.

- (146) ... mitkä palvelut tuotetaan ja/tai kulutetaan paikallisesti
 ... which.PL service.PL produce.PASS and/or consume.PASS locally
 ‘... which services are produced and/or consumed locally..’

Ja/tai can connect quite elaborate noun phrases. This example is interesting because the coordinated noun phrases are followed by the postposition *välillä* ‘between’, which suggests that the configuration *between NP ja/tai NP* is possible.

- (147) ... se ilmenee valtapoliittisena kamppailuna valtiotoimijoiden ja/tai
 it occur.3SG political_power.ESS struggle.ESS state_actor.PRT.PL.GEN and/or
 ylikansallisten yritysten välillä.
 transnational.GEN corporation.GEN between
 ‘... it occurs as a political power struggle between state actors and/or transnational corporations.’

In English, *between* is possible so as long as it operates over a plurality. If the noun denotes a group or collective noun, like *actors* or *corporations*, then the choice of coordinator does not matter since *between* will always have a plurality to operate over.

- (148) This is a power struggle...
- a. between state actors and transnational corporations
 - b. between state actors or transnational corporations
 - c. between state actors and/or transnational corporations

However, if the nouns are singular, the coordinator must be *and*, and nothing else. Recall that *and* is the only non-boolean coordinator, and the only one in English that is capable of forming the appropriate plurality to license collective predicates. *Or* and *and/or* cannot license *between*.

- (149) This is a power struggle...
- a. between the state actor and the transnational corporation
 - b. *between the state actor or the transnational corporation
 - c. ?between the state actor and/or the transnational corporation

Returning to Finnish, we see that *ja/tai* connects adverbs.

- (150) Tapahtuiko murros erityisen varhain ja/tai nopeasti ?
 happen.PST.3SG breakage particularly early and/or quickly ?
 ‘Did the breakage happen particularly early and/or quickly?’

It also connects predicative adjectives.

- (151) Tavallinen aine on haurasta ja/tai valuvaa.
 standard.NOM material.NOM be.3SG fragile.PRT and/or drippy.PRT
 ‘The standard material is fragile and/or drippy.’

It also connects attributive adjectives.

- (152) jotka ... vaativat ammattiosaamista , kuten sairaanhoitajan ja/tai
 which.PL.NOM ... require.3PL professional_skills , such_as nurse and/or
 lääkärin tietotaitoa
 doctor know-how.PRT
 ‘...which requires professional skills, such as nurse and/or doctor know-how.’

It seems *ja/tai*, as any other connective in Finnish, can even connect things smaller than words and phrases – it is capable of splitting words, as these two examples show.

- (153) äitiys- ja/tai lastenneuvola
 maternal- and/or child-health_clinic
 ‘maternal- and/or child-health clinic.’

- (154) Millä ehdoilla yliopistopedagogiikkaa voidaan pitää
 which.ADE conditions.ADE university.pedagogy can.PASS consider
 itsenäisenä tutkimus- ja/tai tiedonalana ?
 independent.ESS research- and/or knowledge-field
 ‘Under which conditions can university pedagogy be considered an independent research-
 and/or knowledge-field?’

This demonstrates that there are no category restrictions on what can be coordinated by *ja/tai*, as we might expect. Just as in English, all of these coordinators, *ja/tai* included, can also coordinate below the word level. The vast majority of the examples show identical flanking categories, consistent with a general tendency for parallelism, or the Law of Coordination of Likes. This exploration shows the versatility of this coordinator, and its productive and systematic use.

3.5.2 Agreement in Finnish coordination

Finnish has richer verb morphology and can tell us more about the subject-verb agreement patterns. Finnish fully inflects all verbs for person and number. There would be an agreement conflict for speakers with *ja/tai* if the number is in flux. Just like *and/or*, semantically, *ja/tai* can indicate one of the conjuncts, which should result in singular agreement on the verb, or it can indicate both of the conjuncts, which should result in plural agreement on the verb. In English, coordination, and especially disjunction, makes agreement difficult. Sobin (1997: 320) reports that the best we can say is that, for disjoint subjects, plural verb agreement is somewhat preferred over any alternatives (155a), in contexts where disjoint subjects are independently shown to be possible (155b).

(155) a. You or he ??are/*is leaving tomorrow.

b. You or he must leave tomorrow.

(156) a. You or I ??are/*am/*is wrong.

b. You or I must be wrong.

And/or causes the same difficulty; plural agreement is preferred to the singular.

(157) I saw that John and/or Jim are/?is coming to the party.

It's possibly even more striking that in postverbal subjects, English appears to have closest conjunct agreement. Agreement with the linearly closest conjunct seems to be preferred.

- (158) a. There is/*are [a pen and some books] on the table.
 b. There ?*is/are [some books and a pen] on the table. (Sobin 1997: 341)

We see the same preference with *and/or*.

- (159) a. There are [three men and/or a donkey] in the garden.
 b. There is [a donkey and/or three men] in the garden.
 c. *There are [a donkey and/or three men] in the garden.

In Finnish, the only possibility is singular agreement.

- (160) Paasikiven ja/tai Pakaslahden **tarvitsi** vain vihjaista omasta sivustatuen
 Paasikivi and/or Pakaslehti **need.PST.3SG** only hint.INF own page
 tarpeestaan .
 needs
 ‘Paasikivi and/or Pakaslehti only needed to hint at their own page of needs.’

Finnish has much richer verb ϕ -morphology, for all three persons and two numbers. It could be that this strict agreement is a result of this.

Finnish is like English in its distribution of slashed coordinators. In a corpus search of over 50 million tokens, there are thousands of examples of *ja/tai* ‘and/or’. The same sample yielded just 14 results for *tai/ja* ‘or/and’, which is similarly vanishingly rare in English. Here is an example of *tai/ja*.

- (161) ... jotka määrittelevät itsensä heteroseksuaaleiksi tai/ja perinteisesti
 which.PL define.3PL themselves heterosexual.TRANS or/and traditionally
 mieheksi tai naiseksi
 man.PL.TRANS or woman.PL.TRANS
 ‘... who define themselves as heterosexual or/and traditionally men or women.’

In the same sample, there are no results for the other potential combinations of coordinators: *mutta/ja*, *ja/mutta*, *mutta/tai*, *tai/mutta*. For both languages to show exactly the same distribution of slashed coordinators – a preponderance of “and/or”, a smattering of “or/and”, and virtually nothing else – is striking. This may show one of two things. It might show that the underlying grammatical principles constraining the productivity and use of slashes, and consequently slashed coordinators, are truly universal. Whatever is responsible for this shape of distribution of the slashed coordinators, be it semantic or syntactic constraints, this case lends support to the fact that those constraints are universal and found in different languages.

On the other hand, language contact is a strong force, and if it can be shown that *ja/tai* is simply calqued from English *and/or*, then this case of the two languages having the same distribution of *and/or* and *or/and* shows that language contact doesn’t just bring the form or pattern to a borrowing language, it may also bring the frequency or prominence of use of a certain form from the lending language to the borrowing language.

It is interesting that speakers can productively use “/” to create new lexical items, but in the case of “and/or”, and more broadly with functional categories, this use is clearly constrained – if it weren’t, we would expect an even distribution of all the permutations of slashed coordinators, like “but/or”, but we don’t see this, not in English, nor in Finnish.

Chapter 4

SLASH: EXPERIMENTS

4.1 Introduction

One of the most common questions I get when describing my research on *slash*, is whether or not people ‘really say that’, or whether or not it’s a regular part of the language, or just a passing fad. In this chapter, I aim to address the skeptics and explore some surprising discoveries I made along the way, by presenting the results of two acceptability-judgment experiments and a corpus study.

It has been an accepted practice in syntax to draw conclusions based on introspection ([Chomsky 1965: 17](#)). There are several reasons for this. The object of study of theoretical linguistics has centered around the speaker’s competence, not performance, and the investigation of competence using a single speaker’s intuition can proceed without problem ([Chomsky 1965: 19](#)).

Recently, in theoretical syntax and syntax-adjacent disciplines like sociosyntax and experimental syntax, some scholars have asserted that this traditional practice is unacceptable, saying that “the non-quantitative single-sentence/single-participant methodology, along with the existence of cognitive and social biases, has the unwanted effect that claims in the syntax and semantics literature cannot be trusted” ([Gibson et al. 2011](#)). Researchers who ground their work in experimentation are calling for an increased use of experiments or surveys to support the argu-

ments traditionally made using data from introspection.

In *Aspects*, Chomsky predicted that simply adding on layers of experimentation would probably not add much value to the investigation, and “one who disagrees with this estimate of the present situation in linguistics can justify his belief in the current importance of more objective operational tests by showing how they can lead to new and deeper understanding of linguistic structure” (Chomsky 1965: 20). Since experimental tools are becoming more accessible and sample populations are easier to recruit (e.g., through Amazon Mechanical Turk), linguists have taken up this challenge, by performing experiments to determine whether there is insight to be gained.

In particular, Jon Sprouse, Wayne Cowart, Colin Phillips, and Tal Linzen, among others, have run experiments that all generally point to the same conclusion: experimental studies on judgments simply tend to confirm what was already asserted by introspective judgments. Sprouse carried out two large experimental studies evaluating the reliability of acceptability judgments in a well-known syntax textbook, David Adger’s *Core Syntax* (Sprouse & Almeida 2012), and the judgments in several issues of the journal *Linguistic Inquiry* (Sprouse et al. 2013).¹ In Sprouse & Almeida (2012), they extracted from *Core Syntax* 469 unique sentence types representing 365 phenomena, and formally tested them using magnitude estimation. 359 out of the 365 phenomena, about 98% of the data, was replicated in the formal experiments (Sprouse & Almeida 2012: 630). In Sprouse et al. (2013), they extracted 1743 acceptability judgment data points from issues of *Linguistic Inquiry* between the years of 2001 and 2010. Testing a random sample of 146 phenomena, they found 139 of 146 of the phenomena, about 95% of the data, was replicated in the formal ex-

¹ The studies are further contextualized and summarized in Sprouse & Almeida 2013 and Sprouse & Almeida 2017

periments (Sprouse et al. 2013: 18). Linzen & Oseki (2018) point out that published material often goes through peer review, and this process is an extra layer of vetting for the judgments. This holds to some degree not only for widely-spoken languages like English, but their experiment shows judgments from peer-reviewed Hebrew and Japanese materials are replicated (Linzen & Oseki 2018: 21).

These results suggest that it seems unnecessary to demand researchers to support their introspective judgments with experimental data, if all evidence points to experimental data largely replicating introspective judgments.²

I believe this experimental chapter is justified and a valuable addition to the (largely) introspective Chapters 2 and 3 because I am ultimately defending the claim that *slash* is a new coordinator. To recapitulate some of the discussion from Chapter 2, this is a significant claim because the coordinator category is a very closed class and does not readily generate or accept new members. Part of my claim is that *slash* is used generally, and not limited to a small community of speakers, so I have to demonstrate that this is not just a feature of my idiolect and that it is

² “Largely” is a substantive qualifier. The formal experiments replicated 95–98% of the introspective judgments. Ideally, the experiments would replicate 100% of the judgments. But it is not generally accepted (yet) that the cost and time of running an experiment provides a necessary benefit over simple introspection. Featherston (2007) argues that, while linguists should pay more attention to experimental results, it is not necessary to do an experiment each time, for every judgment: “an individual’s judgements give a fairly good idea of what the judgments of a group will show... but when a paper is to be published, it does not seem unreasonable to expect the author to check any judgements it contains carefully by (at least) preparing multiple lexicalizations and formally asking ten or more other people” (Featherston 2007: 314).

present in other speakers as well. I provide evidence from a corpus study to show that *slash* is not limited to informal, spontaneous speech, but is accepted to the degree that it is included in scripted broadcasts and published media. And lastly, this chapter will serve as the first set, to my knowledge, of experimental results on *slash*.

This chapter is organized as follows. I present my experiments and their respective results. In Experiment 1, I collect acceptability judgments from speakers to determine which categories are acceptably coordinated by *slash*. In Experiment 2, I collect acceptability judgements to more finely determine how homoreferentiality plays a part in nominal coordination. In Experiment 3, I collect acceptability judgments from a different sample of speakers to determine which semantic classes are acceptably coordinated by *slash*. Then, I present the corpus study, where I look at the characteristics of the examples of *slash*-coordination found in COCA, including the relative proportion of examples coordinating different categories. I finish the chapter outlining a research program, launching from these results.³

4.2 Experiment 1: Syntactic categories in slash-coordination

In Chapter 2, I claimed that *slash* showed the following syntactic behavior, where cells indicate what type of syntactic category was acceptably coordinated by *slash*. I repeat the summary table here, from (103) in section 2.4.1.

³ All three experiments were determined by the University of Washington Human Subjects Division on February 27, 2017 to be exempt from federal human subjects regulations, under IRB ID: STUDY00000478.

(1)	Category	CP	C	TP	T	vP	VP	V	DP	D	NP	N	AdjP	AdvP	PP
	Slash coordinate	*	?	?					*	*					

I claimed that CP, DP, and D were unacceptable with *slash*, while C and T were marginal with *slash*. These results seem unexpected. Although we know coordinators with such category restrictions exist in other languages (see Chapter 1 of (Haspelmath 2004)), the familiar coordinators in English *and*, *but* and *or* are not known to have any category restrictions. In Experiment 1, I look to reinforce this claim about category restrictions, by focusing on the DP and comparing it to the apparently acceptable VP and NP.

The key comparisons will be about sentences of the following types.

- (2) a. A doctor slash linguist entered the room.
 b. *A doctor slash a linguist entered the room.

The sentence in (2a) is coordination of two bare nouns, both easily interpreted as describing the same individual. In (2b) there is coordination of two DPs, and is claimed to be less acceptable.

- (3) **Category preference 1: NP > DP**

NP-coordination is preferred over DP-coordination

There are attested examples of *slash* coordinating verbs, auxiliaries (T), and adjectives.

- (4) a. I forgot you **lived slash worked** here.

- b. Who **is slash was** this guy?
- c. Kurtosis is how flat or **peaked slash normal** the pitch is.

This, and other examples of head coordination, could be explained by the general preference to coordinate “smaller” structures.

On the other hand, there are examples of *slash* easily coordinating phrasal categories as well, like a VP with a verb and object (5) or a VP with an adverbial modifier (6).

(5) I am **eating chips slash watching videos**.

(6) The disgraced lawyer was **furtively creeping away slash quietly sneaking out**⁴

The sentence in (5) shows *slash* coordinating a larger verb phrase, not simply heads. This is attested and perfectly acceptable, while DP-coordination is not attested, and rated as degraded. I find it fair to state a second category preference.

(7) **Category preference 2: VP > DP**

VP-coordination is preferred over DP-coordination.

The two category preferences are summed below.

(8) **Category preferences: NP > DP, VP > DP**

⁴ Example from Sharon Hargus, p.c.

This pattern of preferences is surprising from two perspectives. First, this pattern is unexpected from typological surveys. [Payne \(1985\)](#) proposed a hierarchy of phrase types that constrains possible coordination strategies. The hierarchy is as follows.

(9) **Payne's Hierarchy**

S - VP - AP - PP - NP

A coordination strategy will apply to a contiguous subset of this hierarchy. ([Payne 1985: 5-6](#))

This hierarchy, loosely ordered in descending size of conjuncts, is proposing a constraint on the possible category preferences of coordination strategies. A given coordination strategy may apply to any subset of this hierarchy, as long as it is contiguous and not broken by another strategy. If a strategy is found to apply to two categories, it is predicted that it should apply to the intervening categories as well. As one illustrative example, Fijian *ka* was attested to cover the categories S to PP, and Fijian has a separate coordinator just for the remaining category NP, *kei* ([Payne 1985: 6](#)) Payne found no outright exceptions to this hierarchy in his survey.⁵

Now, considering the pattern for slash, where does DP fit in? I assert that NP is generally 'smaller' than DP, as in most theories that I know of that make a distinction between an NP and a DP, the NP contains less functional structure. The hierarchy revised to include DP would look

⁵ Payne's original sample of languages was not selected *a priori* for genetic diversity. [Drellishak \(2004\)](#) sought to boost the typological credence of the hypothesis by re-examining it with a survey of 30 typologically diverse languages.

something like this.

(10) **Payne's Hierarchy, revised to include DP**

S - VP - AP - PP - DP - NP

A coordination strategy will apply to a contiguous subset of this hierarchy.

We have attested examples of *slash* coordinating VPs as well as (many examples of) NPs.

(11) [VP] .. the tour that Shakira **canceled slash postponed**

(12) [NP] .. I know he's not here in this **luxury car slash coffin**

As the hierarchy would predict, *slash* should apply to the intervening categories, AP, PP, and DP.

I have found examples of *slash* with AP:

(13) [AP] I'm very **happy for you slash jealous**

I don't have any readily available with pure PP, but I do have a hybrid:

(14) [AP & PP] When you're not **married slash in a relationship...**

I found no examples definitively coordinating two DPs. The category preferences for *slash* are therefore discontinuous according to this hierarchy: VP-*DP-NP.

(15) **Payne’s Hierarchy, revised to include DP**S - VP - AP - PP - DP - NPThe *slash* pattern highlighted

In stronger words: the *slash* pattern of category preferences in (8) is *unattested* in any of the surveyed world languages.

The second reason this pattern is unexpected comes from an online processing view. In studies of coordination and processing there is typically observed a preference for “smaller” conjuncts. “Smaller” and “larger” are informal terms meant to describe the containment relations between phrases in a typical structure. S, or its notational equivalent, usually contains VP. VPs contain PPs, PPs contain DPs, and DPs contain NPs. NPs don’t as often contain DPs. Thinking bottom-up derivationally for a given sentence, a NP will be constructed before a DP, a DP before a PP (if there is one), and so on. This forms the continuum I’m referring to with the terms “smaller” and “larger”, which also corresponds roughly to the order in Payne’s Hierarchy.

There are at least two types of explanations for this preference. One views the small conjunct preference as a subcase of the general minimal attachment strategy (Frazier 1987).

(16) Minimal attachment: do not postulate any potentially unnecessary nodes.

Frazier notes in many specific cases of ambiguity, minimal attachment serves as a disambiguating principle. For example, consider the incomplete sentence.

(17) Ernie kissed Marie and her sister...

In online reading experiments, readers are surprised by the continuation of the sentence *..laughed*, suggesting they postulate something small like DP-coordination as soon as they can. From a processing perspective, DP-coordination is preferred over VP-coordination. The peculiar feature of *slash* is that there is a case where a larger phrase is preferred over a smaller phrase. I have argued for the two category preferences as follows:

(18) NP > DP, VP > DP

The second preference, VP > DP, indicates that a *larger* category is preferred to a smaller category. This is unexpected by a strict minimal attachment theory, so some additional bias may be influencing the behavior.

The first goal of the judgment study is to reinforce the assertions I made above about the category preference of *slash*. Rather than assuming DP is ungrammatical based on two sources of information—introspection and the lack of attested examples—I conducted an acceptability-judgment experiment to target the supposedly unacceptable examples. I followed the method guidelines in Cowart (1997). (See Myers (2009) for an overview of acceptability judgment literature)

4.2.1 *Items*

I constructed sentences based on the categories both attested and unattested. I limited categories to those available for standard coordination. For example, D-slash-D is bad (**I saw a slash the movie yesterday*), but no coordinator allows that particular coordination (**I saw a and/but/or the movie yesterday*).⁶ These were the example trial sentences for *slash*.

- (19) a. (NP) That's what they serve at the beach slash pub.
 b. **(DP) *I met a doctor slash a lawyer.**
 c. (A) I'm happy slash jealous.
 d. (V) Tom wants to tapdance slash sing onstage.
 e. (VP) I'm watching movies slash doing yoga.

I took most of the example trial sentences for *slash* and simply replaced the coordinator to generate trial sentences for *and*.

- (20) a. (NP) That's what they serve at the beach and pub.
 b. **(DP) I met a doctor and a lawyer.**
 c. (A) I'm happy and jealous.
 d. (V) Tom wants to tapdance and sing onstage.
 e. (VP) I'm watching movies and doing yoga.

⁶ Possible exception: *I wanted to see Wonder Woman but I heard there was a prequel. I saw both **this and that** movie last week.* In any case, it's inconsequential here, and *slash* is resistant to D-coordination.

The examples (19b) and (20b) form a minimal pair of interest: while only changing the coordinator, (19b) appears to be fairly degraded, while (20b) is completely normal. In all trial sentences, the coordination is located clause-finally.⁷

Target items were interspersed with a number of filler items, both grammatical and ungrammatical, in order to obscure the object of inquiry.

4.2.2 Participants

An acceptability-judgment study was conducted via PsyToolkit, and the Amazon Mechanical Turk crowdsourcing platform was used for recruiting, in July 2017. PsyToolkit is a platform for running various psycholinguistic experiments, including sentence-rating tasks (Stoet 2010, 2017). Amazon Mechanical Turk (AMT) is a platform for recruiting participants for experiments conducted online. AMT is fast and provides reliable, replicable results for acceptability judgments from native speakers of English. Results from psycholinguistic experiments where data is collected from AMT are ‘almost indistinguishable’ from those collected in traditional, controlled laboratory settings (Sprouse 2010).

⁷ The studies in Harris & Carlson (2016) have indicated that the acceptability of certain coordinate structures may interact with their position in the clause. *Let alone* is proposed to have concurrent ellipsis (*John won't drink coffee, let alone John won't drink tea*), and the location of the elided material in the clause can affect the acceptability of the utterance. Clause position was not included as a factor in this experiment, and coordination was always clause-final.

4.2.3 Procedure

The experiment was administered online, on the participant's own computer, with any compatible web browser. Participants encountered the experiment through the Mechanical Turk platform, and joined voluntarily. They encountered a survey, which asks them to self-identify as a native speaker of English by a simple radio button question. Participants were paid for a successful submission.

Participants were shown randomized example sentences with example ratings. In testing, participants saw a sentence displayed and rated it on a Likert scale 1–7, 7 being 'perfectly natural or acceptable'.

4.2.4 Results

I received responses from 24 native speakers. The average rating for all good fillers was 5.88, and for the bad fillers 1.49. The results are summarized in the following graph and table.

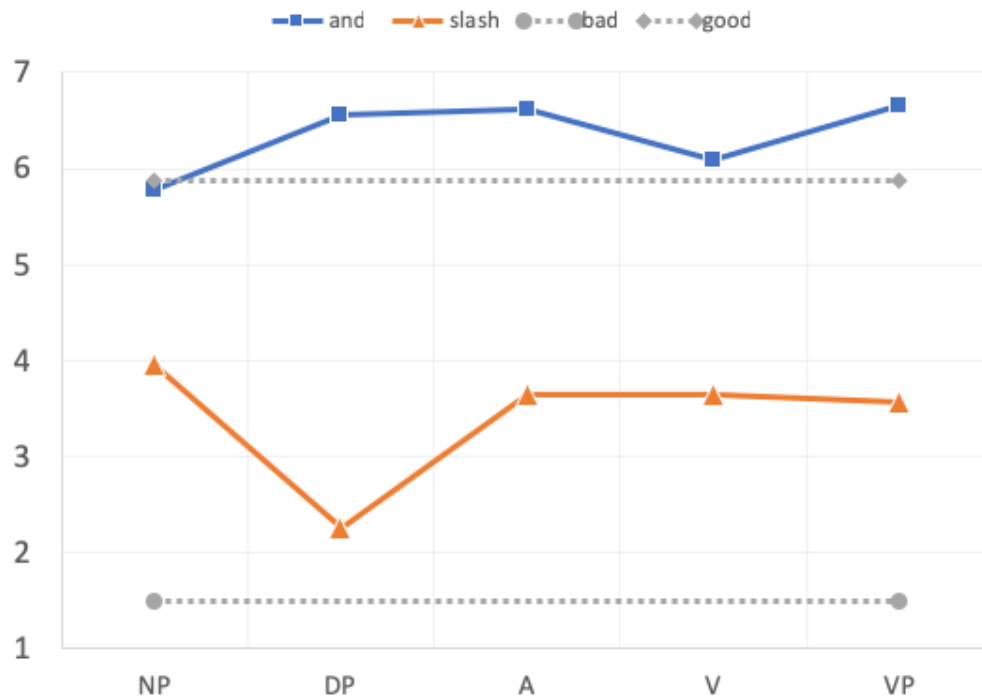


Figure 4.1: Mean acceptability ratings for the categories NP, DP, A, V, VP as coordinated by *and* and *slash*. (1=unacceptable, 7=acceptable)

	NP	DP	A	V	VP
and	5.78	6.56	6.60	6.08	6.65
slash	3.95	2.26	3.65	3.65	3.56

Table 4.1: Mean acceptability ratings for the categories NP, DP, A, V, VP as coordinated by *and* and *slash*. (1=unacceptable, 7=acceptable).

4.2.5 Discussion

The results confirmed the hypothesis that DP-slash coordination is significantly degraded compared to other slash-coordination of other categories. DP-slash coordination scores an average of 2.26, a departure from the overall average score for slash-coordination, 3.42. And-coordination for all categories scored around or above the average good filler.

Slash-coordination did not score near the good fillers. There is a difference between and-coordination and slash-coordination taken holistically. The average score for all well-formed and-coordination trials was 6.34, and all categories scored around or above the average score of the good fillers, which was 5.88. The average score for all slash-coordination is 3.42. The difference between and-coordination and slash-coordination is 2.92, while the difference between slash-coordination and the bad fillers is a difference of 1.93. Slash-coordination appears to be rated at about the middle between the good and bad fillers. In other words, it was not entirely acceptable for all speakers, even in the canonical NP examples, but it was also not uniformly rejected, as the bad fillers. This effect may be due to the possible age-grading of slash-coordination: slash may be fully acceptable only for younger speakers.

The less-commonly-observed categories for slash-coordination, A, V, and VP, were generally rated close to the very commonly observed category NP. NP-slash-NP still scored the highest of all slash-coordination, but the other categories were close. Anecdotally, most of the examples I encountered in personal observation are simply NP slash-coordination, like *linguist slash musician*.⁸

⁸ One of the aims of the corpus study later in this chapter is to ground this observation, by determining the distribution of slash-coordination with different categories in a sample of a balanced corpus.

But it seems that speakers judge *slash* to be uniformly acceptable with all categories, suggesting it has successfully generalized to be employed and understood with all these categories. If slash-coordination simply reflected exposure to the more common NP examples, or if NP-slash-NP is argued to be some sort of fixed expression or idiom, then we should see degradation with the other categories. I did not observe such a degradation with the less common categories, suggesting that slash-coordination is indeed a productive coordinator and not a fixed expression. The fact that V and VP categories are acceptable reinforces the point that *slash* is a syntactic coordinator and more versatile than the morphological linker Latin *cum*, for *cum* is unable to link anything but nouns and possibly adjectives (Renner 2013: 64). Verbal (??*freeze-cum-dry*, ??*drink-cum-drive*) and adverbial (??*jointly-cum-severally*, ??*purely-cum-simply*) compounds are explicitly highlighted as unattested, and questionable at best (Renner 2013: 64). On the other hand, for *slash*, beyond these experimental results, I have directly observed these verbal (21) and adverbial (22) examples:

(21) The tour that Shakira **canceled slash postponed**

(22) Egli declined **politely slash embarrassedly**.

I summarize the findings of Experiment 1 as follows. I establish a baseline of acceptability ratings for slash-coordination. DP slash-coordination is degraded compared to NP, A, V, and VP slash-coordination. Slash-coordination as a whole is rated in the middle region between good and bad fillers. Slash-coordination with NP, A, V, and VP is rated uniformly, which is evidence that slash-

coordination has generalized to those categories, it is a productive coordinator, and NP-slash-NP is not an idiom.

4.3 *Experiment 2: Homoreferentiality in nominal slash-coordination*

One of the properties that Renner (2008) describes English coordinate compounds having is homoreferentiality, which he defines as compounds where the denotata are fused. Olsen (2000) describes a similar property of copulative compounds, which “encompass a coordinative relation between the two constituents such that both concepts are predicated equally of the same referent. A *bartender-psychologist*, therefore, refers to someone who is both a ‘bartender’ and a ‘psychologist.’” (Olsen 2000: 94). Similar examples abound in Olsen (2000), including *poet-translator*, *camper-trailer*, *theater-museum*, *murder-robbery*, *broker-analyst*, *filmmaker-playwright*. This is contrasted with heteroreferential compounds, where the denotata are unfused and refer to separate individuals (e.g., *tractor-trailer*, *mother-daughter relationship*, *doctor-patient gap*, *parent-teacher association*). In Chapter 2, it was supposed that homoreferentiality was an essential component of the meaning of slash-coordination. This was proposed on the basis that the examples of slash-coordination are overwhelmingly homoreferential. These examples repeated from Chapter 2 all emphasize the fact that the two constituents are referring to the same individual, and there is no possible interpretation of the slash-coordination that would involve more than one person.

- (23) a. I ran into one of my **family friends slash customers** at the Bartell’s on R____.
- b. ...my neighbor slash faux big brother was a die hard conservative

- c. *Of Mice and Men* is a good example of a **play slash novelette**.

On the other hand, no examples were found of heteroreferential slash-coordination, where the constituents refer to different people. We cannot construct slash-coordination with definitively heteroreferential compounds.

- (24) a. #I want you to meet my **mother slash daughter**. (Intended: I want you to meet my mother, and I want you to meet my daughter.)
- b. #The student needs to talk to his **parent slash teacher** (Intended: he needs to talk to his parent, and he needs to talk to his teacher, and the parent and teacher are separate people)⁹
- c. #I am waiting for a **doctor slash patient**. (Intended: I am waiting for a doctor and I am waiting for a patient.)

In (24a), the faulty slash-coordination example also shows the failure to construe, in Olsen's words, an 'ontologically coherent individual' (Olsen 2000: 94), which actually makes this utterance unsalvageable under any interpretation. Say I utter (24a) and point to an individual standing next to me. The coordination fails because there is no possible single individual in our ontology of kinship who could be both my mother and my daughter. We then must consider the alternative scenario, where I utter (24a) and point to two individuals standing next to me. In this scenario, I am not enforcing homoreferentiality on *slash*-coordination, and I am allowing each

⁹ Sharon Hargus points out this sentence would be perfectly licit in a homeschool situation.

constituent to refer to a separate individual—but the utterance is unacceptable. *Slash* cannot do that, due to some grammatical factor. I suggest that grammatical factor is an inviolable semantic constraint on *slash*-coordination, where the constituents of *slash*-coordination must all have the same referent.

This experiment look more closely at this requirement, by comparing homoreferential DP slash-coordination with homoreferential NP slash-coordination.

The requirement of homoreferentiality might explain why DP slash-coordination is often considered unacceptable. It is unacceptable because DPs often introduces new referents, and if a speaker construes independent referents then DP slash-coordination will be unacceptable. This might be the explanation why, in Experiment 1, I found degraded ratings for DP slash-coordination over NP slash-coordination, rather than the explanation that there is a strict restriction disallowing the syntactic category DP.

There is anecdotal evidence that proper names referring to the same person, such as performance or stage names, are acceptable with slash, as in *Brian slash Katya*. The syntactic status of names is up for some debate. Longobardi (1994: 632) argues that English “both allows and requires... empty determiners” for proper names. Stowell (1991: 37) also argues for a DP structure of names to allow for the possibility of determiners in constructions like the following:

- (25) a. I’m talking about the new Nixon.
 b. He’s not the Nixon I used to know.
 c. Bill knows a Nixon who is a dentist. (Stowell 1991: 38)

Depending on the theory of the syntactic category of names, this could be evidence that DP&DP is in fact acceptable, just in case the coordination is homoreferential.

Experiment 2, then, explored the hypothesis that homoreferentiality might be the limiting factor in DP-coordination. I tested stimuli with examples of slash-coordination that are all homoreferential, that is, they clearly refer to the same person or thing.

4.3.1 *Items*

Experimental items were created with either DP slash-coordination or NP slash-coordination, as in the following sample trials.

(26) Homoreferential DP slash-coordination

- a. I am a big fan of the Terminator slash the ex-governor of California.
- b. I fight often with the wife of my father slash my mom.
- c. John always argues with Mary: his friend slash his enemy.

(27) Homoreferential NP slash-coordination

- a. Can I have a watered-down espresso slash Americano?
- b. Todd became an amazing doctor slash terrible writer.
- c. I have read every work by the Bard of Avon slash greatest writer ever.

If there is a true category restriction on slash-coordination, then we should see degraded ratings for DP (26) compared to NP (27).

4.3.2 *Participants*

An acceptability-judgment study was conducted via PsyToolkit, and Amazon Mechanical Turk crowdsourcing platform was used for recruiting in May 2018.

4.3.3 *Procedure*

Experiment 2 followed the same acceptability judgment task procedure as Experiment 1. Participants saw a sentence displayed and rated it on a Likert scale 1–7, 7 being ‘perfectly natural or acceptable’.

4.3.4 *Results*

There were 29 respondents (N=29) who reported that they were native English speakers. There was no significant difference between DP-slash-DP ratings and NP-slash-NP ratings. DP-slash-DP items were rated on average 3.456, and NP-slash-NP items were rated at 3.485. NP items had a negligible increase of about 0.02. Good fillers were rated very highly, on average 6.0, while bad fillers were rated very low, on average 2.1.

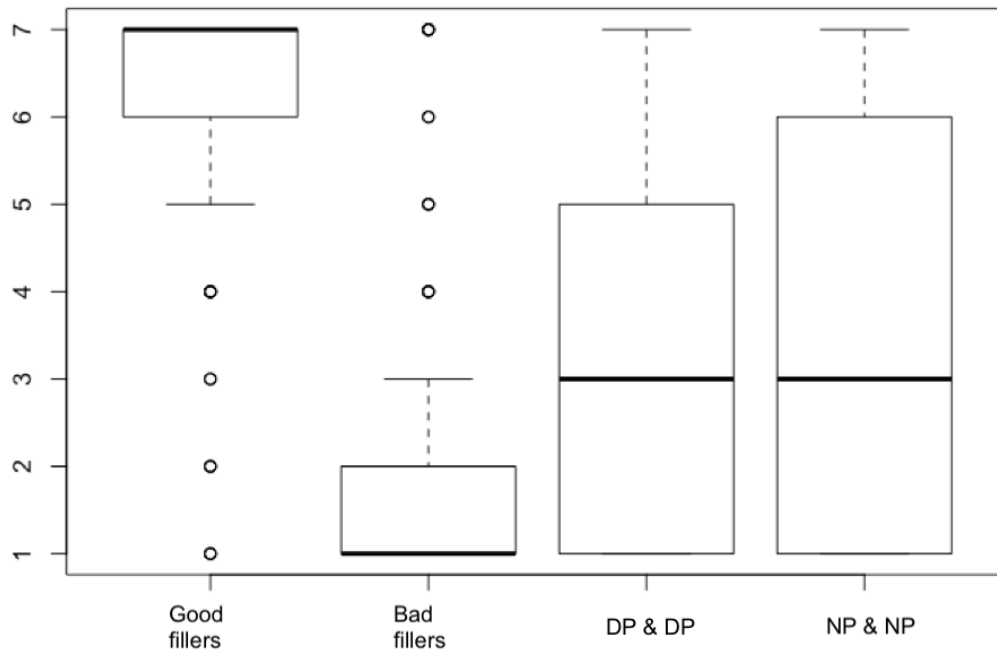


Figure 4.2: Average acceptability ratings for the categories good filler, bad filler, DP-slash-DP, NP&NP. (1=unacceptable, 7=acceptable)

	Good filler	Bad filler	DP&DP	NP&NP
Ratings	6	2.1	3.456	3.485

Table 4.2: Average acceptability ratings for the categories good filler, bad filler, DP-slash-DP, NP&NP. (1=unacceptable, 7=acceptable)

4.3.5 Discussion

Overall, the results disconfirm the hypothesis. When all test items are intended to be homoreferential, there is no significant difference between DP-slash-DP and NP-slash-NP. The mere syntactic category distinction is not a sufficient factor to cause a significant difference in ratings.

It remains to explain then why DP-slash-DP combinations are significantly degraded, as in Experiment 1. The trials that were degraded likely introduced a new referent, and violated the constraint on homoreferentiality that slash enforces. This also explains why proper names are allowed in slash coordination just in case they are homoreferential, as in *Brian slash Katya*. Depending on the syntactic theory, proper names are either DP or NP (e.g., Longobardi 1994 for arguments for DP with an expletive D). If proper names are always DP, and slash had a category restriction disallowing DP coordination, then there would be no way to explain why *Brian slash Katya* is allowed. In light of these results, there is no explanation needed: since *Brian* and *Katya* are determined to be homoreferential, then it is licensed.

This experiment brings up questions about other syntactic categories. It is not clear what the criteria of homoreferentiality might be as applied to A, V, or even VP. What would a ‘homoreferential’ event or modifier (in the case of A) be? It might be required that the events be simultaneous in time, or involve the same participants and event structure. We would be able to further test this hypothesis by creating heteroreferential events and descriptors, which would be predicted to be degraded.

4.4 Experiment 3: Semantic classes in slash-coordination

Here I explore another factor contributing to the ratings of slash-coordination. It is possible that the meaning of *slash* affects its acceptability with certain semantic classes. In order to explore the semantic versatility of *slash*, I carried out an acceptability judgment experiment to determine which semantic classes worked best with *slash*.

In the preceding acceptability judgment studies, it was shown that NP-slash-NP combinations typically score the highest in acceptability judgments, and they also seem the most well-represented in balanced corpora (see the Corpus Study). However, previous experiments did not control for the possibility that certain combinations do not meet other semantic requirements of *slash*. This experiment explores the possibility that slash-coordination is limited to certain semantic classes. An example of a semantic class is *furniture*, *instrument*, or *food*. These semantic classes were extracted from the ontology in WordNet (Fellbaum 1998), as discussed in the Materials section. The classes certainly cross-cut other theoretical notions, such as mass and count nouns, but those are not considered here.

The canonical NP-slash-NP with professions *prima facie* seems more acceptable than something like NP-slash-NP with furniture.

(28) Jeff is a bartender slash secretary.

(29) # Miles built a bookcase slash bed.¹⁰

¹⁰ Although if one's furniture ontology is sophisticated enough to include a bed with a bookcase built into the headboard, this does in fact pick out an ontologically coherent entity.

Suppose the difference between (28) and (29) is that it is easier to conceptualize of a hybrid entity between the professions, but tougher to imagine a hybrid piece of furniture between a bookcase and a bed. Professions as roles can have loosely-defined edges and are much more able to be hybridized than pieces of furniture, which have discrete, concrete edges. This experiment tests the hypothesis that NP slash-coordination is restricted to coordinating *hybridizable* nouns.

4.4.1 Items

Experimental items were created with NP-slash-NP instances of *slash*, from an arbitrary assortment of semantic categories like ‘animals’, ‘furniture’, ‘food’, ‘professions’, and so on. I used WordNet to determine umbrella semantic classes at roughly the same ‘level’ in the semantic hierarchy in WordNet. ‘Animals’ is a hyponym 4 levels down from the supercategory ‘organism’,¹¹ and ‘furniture’ is a hyponym 4 levels down from the supercategory ‘things’. I then picked arbitrary words listed in WordNet that were instances of each of those categories.

I divided these combinations into *hybridizable* and *non-hybridizable* based on my intuitions and reasoning above. It is easier to imagine a facility that is both a zoo and a gym than to imagine an instrument that is both a flute and a piano. So facilities is considered *hybridizable* and instruments are considered *non-hybridizable*.

¹¹ ‘Supercategory’ is a term used in the WordNet ontology.

Table 4.3: NP-slash-NP for Experiment 3

Hybridizable		Non-hybridizable	
Clothes	Facilities	Animals	Sport
sweater slash jacket	zoo slash gymnasium	bulldog slash tomcat	yoga slash tennis
speedo slash shorts	airfield slash cafeteria	horse slash crocodile	basketball slash soccer
Food	Celestial bodies	Instruments	Vehicles
casserole slash stew	quasar slash supernova	saxophone slash trombone	truck slash SUV
soup slash chili	galaxy slash nebula	flute slash piano	sedan slash hatchback
Professions	Liquids	Natural terrain	Furniture
golfer slash writer	milk slash coffee	beach slash jungle	table slash cabinet
bartender slash secretary	vodka slash juice	meadow slash forest	bookcase slash bed
Abstract characteristics	Textiles	Plants	Crockery
empathy slash compassion	cotton slash cashmere	daisy slash rose	bowl slash cup
courage slash stubbornness	polyester slash nylon	tulip slash iris	knife slash fork
Groups	Devices	Fruit	Vegetable
orchestra slash symphony	laptop slash tablet	pear slash banana	cucumber slash radish
club slash fellowship	phone slash computer	mango slash apple	broccoli slash carrot

These NP-slash-NP combinations were then embedded in sentences to be presented as stimuli. NP-slash-NP was always placed sentence-finally to avoid effects of Finality (see footnote 7). Filler sentences were adapted from an acceptability judgment study conducted in [Whitman \(2004\)](#), from an experiment testing coordinated wh-questions like *When and where did John eat?*. The experiments are similar because [Whitman](#) was collecting judgments for a particular coordination

structure.

A sample of trial sentences are given below: hybridizable NP-slash-NPs are given in (30), non-hybridizable NP-slash-NPs are in (31).

(30) Hybridizable

- a. Charlotte works part-time as a golfer slash writer.
- b. Lucas cooked a casserole slash stew.

(31) Non-hybridizable

- a. Adam is slicing a cucumber slash radish.
- b. Camila enjoys performing on the flute slash piano.

This is a sample of the fillers, adapted from Whitman (2004). Acceptable fillers are in (32), and unacceptable fillers in (33).

(32) Acceptable fillers

- a. He establishes a balance between the beautiful and the ugly.
- b. Isaac is also a bit of a hipster.

(33) Unacceptable fillers

- a. You could me be prosecute belong this.
- b. The movie was sold in time we it at the box office.

The hypothesis of this experiment was that slash-coordination is limited to hybridizable nouns. Therefore, it was predicated that hybridizable NP slash-coordination, as in (30), would be rated higher than non-hybridizable NP slash-coordination, as in (31).

4.4.2 *Participants*

This was an acceptability judgment study built in Psytoolkit and recruitment was done on Amazon Mechanical Turk in February 2018. There were 45 participants. I restricted eligibility to users with IP-addresses located in the United States.

4.4.3 *Procedure*

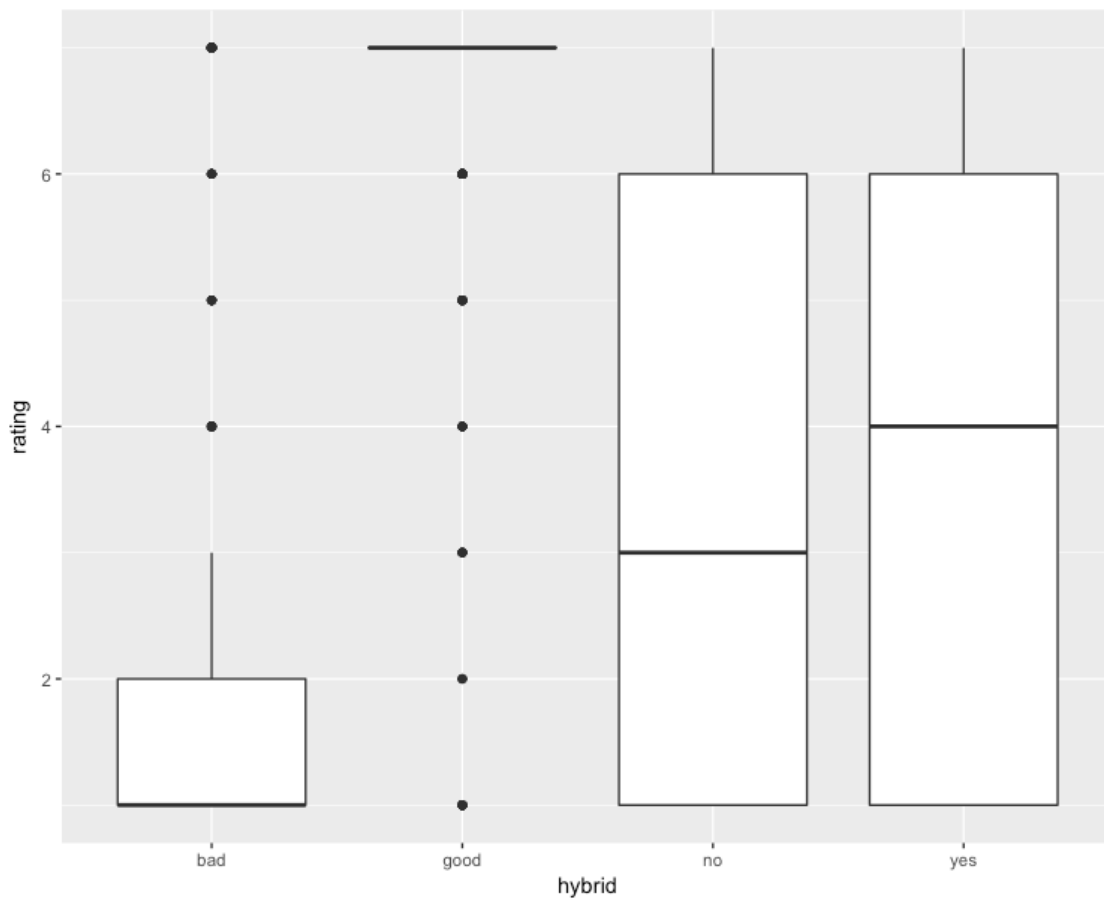
Each participant was shown examples of acceptable and unacceptable sentences, along with sample ratings. Each participant then was shown 40 sentences, randomly picked from the fillers and test items, and asked to provide a rating on a 7-point Likert scale, 1 being totally unacceptable and 7 being perfectly acceptable. There was no overt or explicitly stated time limit, but response time was recorded.

At the end, participants had the option to provide their age.

4.4.4 *Results*

The main results are summarized below.

Figure 4.3: Experiment 3 plotted results.



	Condition	Mean Rating
1	bad fillers	1.91
2	good fillers	6.50
3	not hybridizable	3.33
4	hybridizable	3.62

Table 4.4: Experiment 3 tabulated results (1=unacceptable, 7=acceptable)

	diff	p	adj	
good-bad	4.59	<0.005	***	
no-bad	1.42	<0.005	***	
yes-bad	1.71	<0.005	***	
no-good	-3.17	<0.005	***	
yes-good	-2.88	<0.005	***	
yes-no	0.29	0.21	ns	

Table 4.5: Experiment 3 post-hoc Tukey results. The Tukey test lists the difference in means between the two conditions, and indicates significance.

4.4.5 Discussion

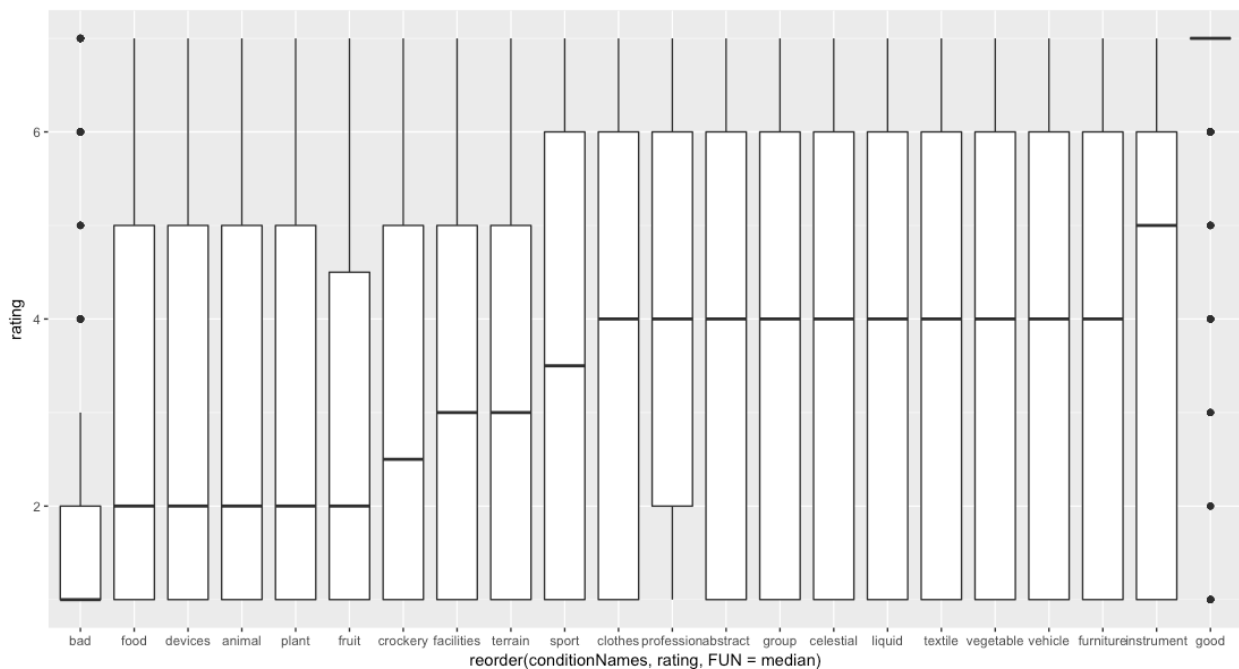
The stimuli were grouped into four main categories: hybridizable NP-slash-NP categories, non-hybridizable NP-slash-NP categories, good fillers, and bad fillers. It was predicated that hybridizable categories would have higher ratings than non-hybridizable categories. Hybridizable categories were rated more highly (3.62) than non-hybridizable categories (3.33), but only slightly (a difference of 0.29) and the difference was not significant. There is no significant difference between the proposed hybridizable and non-hybridizable categories.

A one-way ANOVA tells us there is a significant difference between group means. A post-hoc Tukey's test tells us which exact pairwise comparison is significant. In fact, the Tukey's test shows us every pairwise comparison was significant except the key comparison, between hybridizable

and non-hybridizable. The “yes-good” pairwise comparison is comparing hybridizable nouns (milk slash coffee) with the good fillers. Even the best slash-coordination is significantly worse than good fillers (by -2.88 points, $p < 0.005$). The “no-bad” pairwise comparison is comparing non-hybridizable nouns (table slash chair) with outright bad fillers. Even non-hybridizable nouns are significantly better than bad fillers (by 1.42 points, $p < 0.005$). This empirically reinforces the conclusion from Experiment 1: while slash-coordination is not as generally acceptable as the best fillers, it is also not outright rejected, as bad fillers are.

I don't have to discard my hypothesis entirely just yet. I hypothesized that there were two supercategories of nouns, hybridizable and non-hybridizable, and only hybridizable nouns could undergo slash-coordination. Although it seems my particular division of semantic classes was not the predictive one, diving deeper into the results reveals a different pattern. The plot below shows ratings of each individual semantic class (along with the good and bad fillers), rather than binning them into my arbitrary hybridizable and non-hybridizable categories. The results are sorted from left to right, from more unacceptable to more acceptable.

Figure 4.4: Experiment 3 results. Separating out the ratings for each semantic class we see tendencies.



On average, the following combinations were rated the worst: food, devices, animals, plants, fruit. The following combinations were uncertain: crockery, facilities, terrain, and sport. The best-rated combinations were: clothes, professions, abstract, group, celestial, liquid, textiles, vegetables, vehicles, furniture, and instruments. Professions were rated quite highly: it is the only condition (even including good fillers) that was never rated 1 (unacceptable). The two highest rated non-filler classes are surprising. I originally categorized furniture (table slash chair) and instruments (flute slash piano) as non-hybridizable, but they were among the two highest rated slash-combinations.

The fact that certain semantic classes are consistently rated lower than other classes suggests

that there is some kind of division between semantic classes that more readily undergo slash-coordination and those that do not, but the division is not the particular “hybridizable” one I proposed.

The division may depend on the worldview or knowledge of the language user. I put the highly-rated furniture (table slash chair) in the non-hybridizable category because an item of furniture that combines the characteristics of a table and a chair doesn’t seem plausible to me. But on consulting others, it seems that a park picnic table or a particularly strong coffee table that one can sit on are potential exemplars of *table slash chair*. *Desk slash table* is also a conceivable, ontologically coherent entity, as most desks fulfill the same function as a table, and vice versa. I also put the highly-rated instruments class (saxophone slash trombone) as non-hybridizable, because it seems inconceivable that these two very distinct instruments could be considered one entity. Again, on consulting others, I found that to those for whom these instruments are unfamiliar, the expression *saxophone slash trombone* conveys the concept of a vaguely gold-colored wind instrument.

I want to dig deeply into slash-coordination with musical terms to further illustrate the possible meanings. Here are some musical examples I encountered in spontaneous speech, showing the variety of ways to employ slash-coordination with musical terms.

(34) Can I have euphoniums slash alto saxophones

The utterance in (34) came from a music conductor, actively running a rehearsal. A conductor obviously knows the difference between the instruments so he wasn’t unsure about who should

be playing, nor was he inviting some chimeric euphonium-saxophone players to play. Rather, he wanted to hear a particular section in Eric Whitacre’s *October* that involved the two groups of instruments playing together in a cooperative texture. The section of music could be described as having characteristics of both the euphonium and the alto saxophone.

(35) You don’t play when the first flute and the third flute slash piccoloist plays [sic]¹²

The utterance in (35) was from a musician giving a YouTube tutorial on concert etiquette.¹³ The expressions “first flute”, “third flute”, and “piccoloist” refer to people occupying certain roles in the orchestra. Again, this professional musician is not unsure about the distinction between the roles. However, this is a good hybridized example. In an orchestra, the “third flute” position often also functions as the “piccoloist” position, and the same player will play flute sometimes and piccolo other times. In this way, “third flute slash piccoloist” is the ideal expression to use. If we use *and*, it almost sounds like three people are involved.

(36) You don’t play when the first flute and third flute **and** piccoloist play

¹² There is some online production effect here causing faulty subject-verb agreement. It should be *play*. However, it raises a question about the possible patterns of subject-verb agreement with slash-coordination. If homoreferentiality is as strong a constraint as I propose, then slash-coordination with singular coordinands should always produce singular verb agreement (*Brian slash Katya performs tonight*). (Plural coordinands wouldn’t show any difference in agreement, and so would not weigh on this question).

¹³ JustAnotherFlutist. <https://www.youtube.com/user/JustAnotherFlutist/videos>

As a final illustration of slash-coordination with musical terms, I play a relatively uncommon instrument shown in the following picture.

Figure 4.5: The author playing a musical instrument



The instrument has a black-and-white keyboard, which many are familiar with from the ubiquitous piano or the accordion. But this instrument is odd: it is oriented differently than the piano, the musician blows into it, and it produces a reed-like sound that evokes a harmonica. It would be perfectly appropriate for a speaker who does not know the name of this instrument to describe the picture as follows:

(37) Brent is playing a piano slash harmonica.

The speaker is providing the best description they can, asserting that the instrument combines

some recognizable properties of a piano with the recognizable properties of a harmonica. This unfamiliarity is close to, but distinct from the idea of *speaker uncertainty* expressed by *and/or*, as discussed in Chapter 3. The uncertainty from *and/or* centers around the inclusivity or exclusivity of the disjunction. That is, a *piano and/or harmonica* describes uncertainty about whether or not the speaker is indicating solely a *piano*, solely a *harmonica*, or both. Thus, it would not be honest to describe the picture as:

(38) Brent is playing a piano and/or harmonica.

The instrument is in fact called a melodica.¹⁴

In summary, we learn from Experiment 3 that the semantic classes which readily combine via slash-coordination do divide consistently into separate categories, but this division likely depends on the language user's worldview and world knowledge. The results have also reinforced the observation from Experiments 1 and 2 that slash-coordination as a whole is not rated as highly as good fillers, nor is it rejected like bad fillers. However, even within this restricted middle area, we continue to see tendencies and systematic behavior across all experiments.

¹⁴ The manufacturer Yamaha has a unique name for their line of melodicas. The name is *pianica*, which is likely a portmanteau of *piano* and *harmonica*, institutionally recognizing the nature of a melodica as a *piano slash harmonica*.

4.5 Corpus study

I studied a random sample of slash-coordination found in two corpora, COCA (Corpus of Contemporary American English, [Davies 2008](#)) and GLoWbE (Corpus of Global Web-based English, [Davies 2013](#)), to determine: (1) the representation of different syntactic categories in a random sample, and (2) the types of semantic classes found in NP slash coordination.

One reason to explore this is to provide an analysis of a new section of data. Up until this point in the dissertation, with few exceptions, I have been arguing primarily through examples of slash-coordination that were simply observed by me in natural spontaneous speech, or with constructed experimental stimuli, supplemented by some examples from a corpus. Here is a systematic dive into published and balanced corpora, which proves that slash coordination is well-attested in diverse genres of language data.

Another reason for a corpus study is to explore the possibility of alternative explanations for the pattern of acceptability proposed in Chapter 2, and reinforced in Experiment 1 (Section 4.2.4). In Experiment 1, I found NP, A, V, and VP slash-coordination rated as acceptable, while DP was degraded. Results from Experiment 2 supported the conclusion that this degradation is due to a violation of the homoreferentiality requirement on slash-coordination.

There is another possible explanation, as discussed in [Harris \(2016: 76\)](#) for *let alone*, where acceptability judgments for certain sentence types generally mirror the exposure that a speaker gets to those sentence types. In experiments testing online processing of coordinate structures, for example, through self-paced reading tasks, it is shown that readers consistently prefer to

coordinate DP over something larger like a sentence. On encountering the fragment like (39), readers prefer the continuation in (39a) where the coordination is analyzed as DP&DP, rather than the continuation in (39b) where the coordination must be analyzed as a sentence coordination (Frazier 1987, Hoeks et al. 2002, Engelhardt & Ferreira 2010).

- (39) Alex entertained Kyle and Sam ...
- a. for an hour.
 - b. laughed for an hour.

There are two explanations for this preference. One type of explanation is the minimal attachment theory (Frazier 1987), which is a type of argument for structural economy in processing. The type flavor of explanation holds that performance in these online tasks is simply mirroring the proportions found in corpora, asserting that “there is no discrepancy between on-line preferences and corpus frequencies”, specifically focusing on noun coordination (Desmet & Gibson 2003). It is this proposal that I evaluate with the present corpus study. If the proportions in the corpus study generally match the acceptability judgment pattern of slash-coordination, then it may be the case that speakers are simply mirroring what they are exposed to. That is, they rate higher the sentence types they see more often, and rate lower the sentence types they do not see. On the other hand, if the proportions in the corpus study do not match the judgment pattern, then this becomes evidence that speakers use of slash-coordination has generalized beyond merely parroting exposure.

4.5.1 Procedure

Samples were extracted from two corpora. The Corpus of Contemporary English (COCA; Davies 2008), and the corpus of Global Web-based English (GloWbE, Davies 2013). These corpora are available online and require no special license or software to search.¹⁵ I manually searched each of these corpora for the word *slash*, and looked through the results until I gathered 50 genuine examples of slash-coordination. I took the first results I encountered as they were returned to me in the corpora search interface. I did not sort by any factors, like year or genre.

In the process of finding this first random sample, there were many false positives that I had to weed out. For example, the common verb *slash* is often used between two nouns, and may look like coordination if taken in isolation.

(40) And it would let **utilities slash costs** by using the fast data

(41) **Ivy Bridge processors slash power use** while offering a slight increase

Slash is often used as a specialized attributive adjective, as in the *slash line* in baseball to list batting averages, or *slash fiction*, a genre of romance fiction. These might appear like NP slash coordination if the reader was unfamiliar with these set expressions.

(42) it should be noted that Martinez posted a **a career slash line** of .312/.418/.515.

¹⁵ The corpora managers require no special license up to a certain number of queries. A user who exceeds the number of queries must register and/or purchase a license.

Figure 4.6: An example of some search results in COCA. A red 'X' indicates a false positive which does not exhibit genuine slash coordination.

those are **journalists slash broadcasters**. I mean, Jon Stewart, to me, is more like a
 s. To wit, middle-aged, never-been-married carpet **weavers slash bowling** heroes; embittered, re
 ter6 cups water to 1 cup ricecan **help slash arsenic** levels. # Because babies, infants, and tod **X**
 range County cities are blocking projects because of " **NIMBYism slash selfishness**. It's: I got min
 as this buzz. Drew and I have shared **clients slash patients** countless times and there is kind of a
 :t Earth, but she was also my **receptionist slash research** assistant who was darned near becomi
 nto an even smaller space, a **kitchenette slash break** room: sink, fridge, microwave, round table
 f orifices, if you will. The **asshole slash vagina**. The vasshole. " " The assina, " Leda said, and
 :een players in baseball history had a **career slash line** of .300/.400/.500 or better - that is batt **X**
 : that the editor's best pal, a supermarket **mogul slash movie** producer, had a penchant for Filipi
 ut him. He's a part-time **bartender slash ski** instructor slash mountain guide, whose most valuat
 He's a part-time bartender slash ski **instructor slash mountain** guide, whose most valuable poss
 MALE: Yes. PALIN: I think it's funny that the cocktail **circuit slash circuit** gives me a hard time for
 about the city's annual **movie slash music** fest, no matter how prestigious. # Gabe ignored me. "
 ikin' -new 22-nanometer manufacturing process, Ivy Bridge **processors slash power** use while **X**
 etes, safeguards your heart, aids sleep. Omega-3 fatty **acids slash heart** disease risk, keep th **X**
 use. Potentially easily developed sources of residual bioenergy include **forestry slash piles**, a **X**
 he's not here in this luxury **car slash coffin**. Lance, he of the square-jawed, blond flat top, footba

(43) Senia, an MFA student at Queens College, explained how she started writing **incest slash fiction**

And a number of examples involved the guitarist Slash. Again, some examples could potentially be seen as slash-coordination if we didn't know Slash was a person.

(44) **seeing slash playing** outside a church in the november rain video

4.5.2 Annotation

After I had a sample of 50 instances of genuine slash-coordination, I coded them by syntactic category and semantic class, based on what was being coordinated. The options for syntactic category potentially ranged from any that slash-coordination is compatible with, as argued in Chapter 2. This could be A, V, NP, VP, and so on. I referred to the semantic classes sourced from WordNet used in Experiment 3 as guidance for classifying these utterances. The classes I ended up seeing the most were *profession*, *place*, *thing*, *abstract*, *event*, and *person*. The sample is included in the Appendix to this chapter.

4.5.3 Results and discussion

Of the 50 genuine examples of slash-coordination found in COCA and GloWbE, 39 (78%) were NP coordination, 7 (14%) involved Adjectives (or their phrases), and 4 (8%) involved V. I found no examples of VP (or PP) coordination in my sample. Here are some examples of these categories. It is interesting in the NP examples that they are definitively NP, and not DP, by being coordinated within the scope of possessive pronouns *my* and *your*. And the verbal examples were all coordination of simple heads, not phrases.

(45) NP slash-coordination

- a. Sloane Home is my **virtual inspiration board slash shopping list** for my proper-meets-preppy aesthetic
- b. thank your tits for this rare, behind the scenes look at your **first crime slash mo-**

ment of truth

(46) A/AP slash-coordination

- a. I made a whole story out of it – a **Lovecraftian slash religious roots** story
- b. This may well have been my first taste of **interrational slash bestial** horror

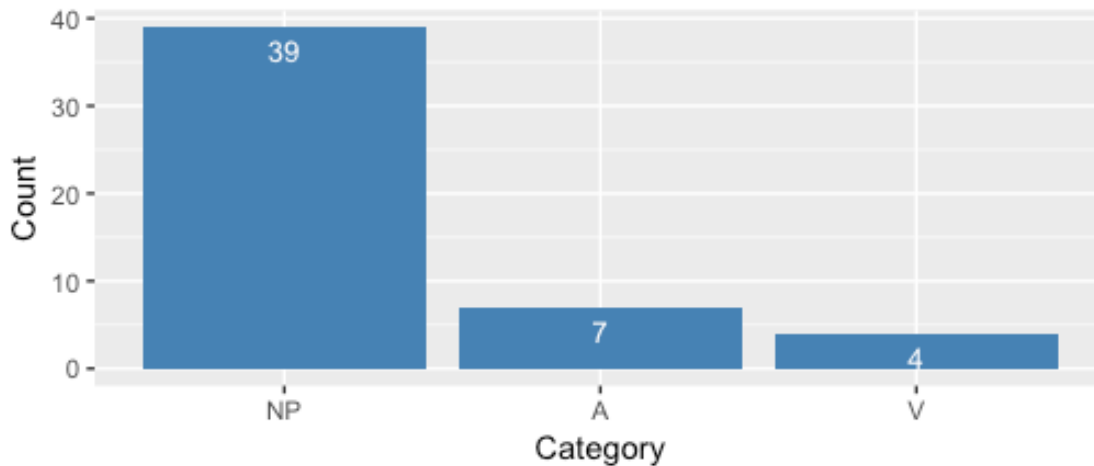
(47) V (not VP) slash-coordination

- a. it is when they are completely **distracting slash ruining** an event
- b. I promise myself to involve in **making slash buying slash maintaining** websites.

The graph of the results highlights the outsize representation of NP slash-coordination compared to the other categories.

Figure 4.7: Slash-coordination sorted by syntactic category, in a sample from COCA and GloWbE

(N=50)



For *slash* this distribution is not surprising. These proportions replicate to some degree the

findings in [Desmet & Gibson \(2003\)](#), where nominal conjunction was found much more frequently in corpora than sentential conjunction. This also reflects the findings in [Renner \(2008\)](#), where the Latin *cum* linking element was found to link nouns in 98.4% of all occurrences in a corpus study ([Renner 2008: 60](#)).

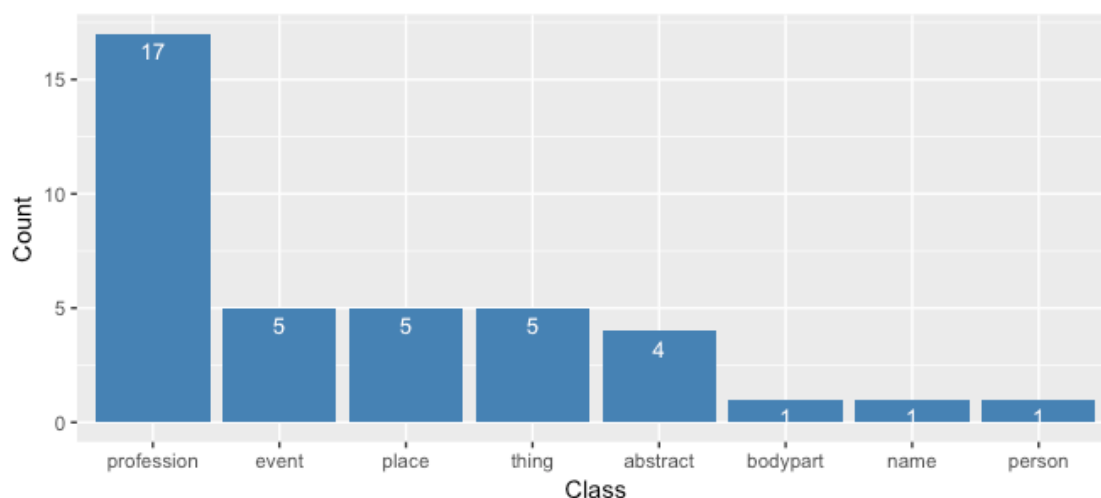
There is also precedent in research on the historical development of coordination in languages. It is a documented grammatical path for coordinators at their early stages in a grammar to start off as a conjunction limited to nouns ([Mithun 1988: 349](#)). With time, speakers generalize the use of the noun conjunction to be used for larger and more diverse categories. This has been actively documented in recent history for languages like Sarcee (Na-Dené) and Akan (Niger-Congo). In historical states of these languages, speakers would restrict use of one conjunction to joining nouns, but in more recent studies, speakers are documented to accept and produce those conjunctions joining verbs and clauses, thus providing direct evidence that conjunctions can generalize from only joining nouns and noun phrases, to joining predicates and clauses ([Mithun 1988: 350](#)).

These results provide further evidence for the homoreferentiality requirement. The pattern of grammaticality found in Experiment 1—where NP, A, V, and VP slash-coordination was acceptable, and DP was degraded—cannot be attributed to speakers simply mirroring their exposure, for two reasons. One, I found no examples of VP slash-coordination, while even in this small sample I was able to find some representation of A and V coordination. Experiment 1 showed that VP slash-coordination was rated just as highly as the other categories. If it was the case that speakers simply rate based on how often they find the sentence type, VP coordination should

have been degraded. It was not. Two, although I did find examples of A and V coordination, they were relatively rare compared to NP conjunction. I find no reflection of this disproportionality in the ratings from Experiment 1.

Looking at the proportions of different semantic classes found in slash-coordination, I also find some interesting patterns. Out of the 39 examples of NP slash-coordination, I found 17 examples of ‘profession’ coordination, 5 for ‘thing’, 5 for ‘event’, 5 for ‘place’, 4 for ‘abstract nouns’, 1 for ‘non-profession person nouns’, 1 for ‘body part’, and 1 example of name coordination.

Figure 4.8: NP slash-coordination sorted by semantic class, in a sample from COCA and GloWbE (N=39)



Here are some examples of these classes. Most of the class types were borrowed from the semantic classes from WordNet used in Experiment 3. Ultimately, my classifications here are somewhat arbitrary, but I attempted to hew as close to the trial sentences given in Experiment 3.

- (48) [Profession] Motoman was this **gardener slash handyman** for Lance Armstrong.
- (49) [Thing] familiarity is thrown out the window in the course of watching this **film slash documentary slash mockumentary**.
- (50) [Event] was spotted at an **open house slash house party** thrown by socialite Paul Whar-
ton
- (51) [Place] for every **underground dungeon slash disco** there are now two lawyers in a
coffee shop talking about work
- (52) [Abstract] I have this **belief slash feeling** that everything has a purpose
- (53) [Person] one shameless autocrat imposed another **dude slash puppet** on us
- (54) [Body Part] Clattenburg sends Torres off for a kung-fu kick to the **arm slash chest** of
Cleverley
- (55) [Name] The Cairo Jim books (starring a **Captain Ersatz slash Affectionate Parody of
Indiana Jones**)

Dividing the results into semantic classes also reveals something interesting about slash-coordination.

First, the preponderance of professions. This is suggestive of the similar proportions found for copulative compounds and Latin *cum*. Professions feature prominently in work on copulative compounds (Bauer 2008, 2010, Olsen 2000, 2004, 2007), and Olsen (2000) goes so far as to say “By far the most productive semantic pattern [of copulative compounds] designates people by

virtue of their professions”, going on to give dozens of examples such as *fiddler-guitarist*, *banker-businessman*, *filmmaker-playwright*, and *developer-architect* (Olsen 2000: 94). (There are dozens more in the appendix to Olsen 2000.) In discussions of Latin *cum*, there is a strong presence of examples using the linker with occupations (Renner 2008, 2013), such as *driver-cum-waiter-cum-porter-cum-sommelier* (Renner 2013: 64) and *governnness-cum-piano-teacher* (Renner 2013: 60). And the history of *cum* tells us *slash* is probably unremarkable in this regard. *Cum* began as a coordinator in Medieval Latin, limited to toponyms for combined parishes (*Chorlton-cum-Hardy*, *Stow-cum-Quy* (Renner 2013: 59)), then “for some still unknown reason”, it was rapidly adopted for use in structures beyond names (Renner 2013: 64) and proceeds in its generalized, albeit formal, use in Modern English today. I have already shown in Chapter 2 that *slash* differs from copulative compounds and Latin *cum* in its nature as a true syntactic coordinator, but its properties (and the results of this corpus study) are not wholly unprecedented based on analogous work done on these morphological linking strategies.

The second finding from diving deep into semantic classes is the same argument made about syntactic classes. The ratings given to different semantic classes in Experiment 3 do not reflect the relative proportions found in the corpus. If the ratings reflected mere exposure, then we would expect the ‘professions’ class to outshine all other class. It did not. Although ‘professions’ was the only semantic class not to have the 1 (unacceptable) rating within its interquartile range, its mean rating performed near that of abstract nouns. And in Experiment 3, I found instruments were rated the highest among all slash-coordination, yet I found no such examples in this corpus sample.

The results from the exploration into the distribution of syntactic categories and semantic classes used in slash-coordination found in the corpora all point to the same conclusion: slash coordination has successfully generalized over multiple syntactic categories and semantic classes. Speakers use and accept multiple types of syntactic categories and semantic classes not represented in a balanced corpus, showing that it is active and productive use. The results show a wide variety of slash-coordination attested in multiple genres, in published, written form, and broadcast, spoken transcript form, in informal and formal registers, showing that *slash* is in active use in a substantial portion of Modern English.

4.6 Conclusion

In this chapter I presented the result of 3 experiments that show the syntactic and semantic behavior of *slash* is systematic across a random sample of the population. Across the 3 experiments, the sample comprised 98 native speakers of English, whose results converged on systematic behavior of slash-coordination. Experiment 1 demonstrated that DP slash-coordination is rated lower than other categories NP, A, V, and VP slash-coordination. Slash-coordination is also rated lower than and-coordination, and rated in the middle range between good and bad fillers. Experiment 2 showed that, when all trials are homoreferential, there is no rating difference between DP and NP. This is evidence against a categorical ban on DP slash-coordination, and evidence for a general constraint of homoreferentiality, at least in nominal coordination. Experiment 3 showed that there is a division between acceptable and unacceptable semantic classes in slash-coordination. Coordinating nouns from classes like plants and animals were found less acceptable, while classes

like professions and instruments were found more acceptable. This suggests that *slash* has even more nuanced semantic requirements than a coarse notion of homoreferentiality, as it depends on what kinds of nouns the speaker or hearer deem able to be hybridized.

All the experiments presented in Chapter 4 have been offline tasks. For future work I would look into the online processing of *slash* coordination to see how its syntactic category expectations and other behaviors might differ in active reading. Hoeks et al. (2002) used online self-paced reading and eye-tracking to investigate whether topic-structure plays a role in reading coordination. Eye-tracking is also used in Harris (2016) to probe the category expectations of the coordinator *let alone* (discussed in Hulsey 2008), as well as the effect of the focus particle *even*. All the experiments were also limited to slash-coordination with singular conjuncts, and not plural conjuncts. I have observed some instances where speakers use plural slash-coordination (*my cats slash best friends, clients slash patients*), but I did not test the acceptability of plural conjuncts relative to singular ones. In further determining the properties of slash-coordination, it would be worth investigating if there is a preference for singular slash-coordination over plural, to see if there are additional constraints on usage.

I also presented a study of two corpora, COCA and GloWbE, which showed that slash-coordination is attested in various spoken and written genres with a variety of syntactic categories and semantic classes. Within the random sample of slash-coordination extracted from these two corpora, NP coordination was the most common, followed by A and V coordination. For semantic classes, professions were by far the most common coordinated entities.

Chapter 5

CONCLUSION

In this dissertation I have provided one of the first in-depth analyses of *slash* as a coordinator in English. I have described its syntactic properties and semantic restrictions. I have presented the results of three experiments that dive deeper into these properties and reveal that the behavior is systematic and nuanced. I have also presented a detailed analysis of the coordinator *and/or*, where I also investigated its syntactic and semantic properties. I set out to answer these questions.

RQ1. What is the syntactic behavior of these coordinators? *Slash* is an English syntactic coordinator that combines readily with most syntactic categories, both heads and phrasal categories. DP slash-coordination appears markedly degraded compared to other categories, but it was shown in the experiments more likely to be a result of its homoreferentiality requirement. *And/or* is another English syntactic coordinator that combines with all syntactic categories that are already possible with and-coordination. Any restrictions on its use come from combining the requirements of *and* and *or*.

RQ2. What is the meaning of these coordinators? *Slash* has a homoreferentiality requirement, a term borrowed from Renner (2008) and Olsen (2000), where the coordinands must have the same referent, or the ‘denotata are fused’. In cases of non-referring expressions, slash-coordination takes partial characteristics of all coordinands. *And/or* combines characteristics of

and and *or* not only in its syntactic behavior but also its semantic meaning. It is essentially a way to specify the inclusive disjunction in English, since the ordinary *or* is normally ambiguous between inclusive and exclusive. It has an additional pragmatic component of ‘speaker uncertainty’ as the speaker usually does not know which specific one or which combination of coordinands is applicable in the given circumstance. *And/or* also interacts in complex ways with distributive predicates, negation, and quantifiers.

RQ3. Why these coordinators, and not other ones? Coordination conjunctions comprise a ‘very closed’, and very small, class (Zoerner 1995: 20). *Slash* appears to have broken that barrier and has become the first new coordinator in English in recent history. Its usage was likely facilitated by the popular pronunciation of *slash* in *slash fiction*, it being a homophone with an existing common word (the verb *slash*), and the precedent of other ‘spoken punctuation’ like *quote*, *period*, and *dot dot dot* used in contemporary English for emphasis.

RQ4. How and why do speakers use these coordinators? *Slash* has two main uses. In the case of nouns and verbs, it is used instead of *and* to emphasize the homoreferentiality of the coordinands—that the nouns refer to the same thing, or the events are happening simultaneously or overlap considerably. *And/or* is used to unambiguously mark the inclusive disjunction, but also to convey a sense of speaker uncertainty. *And/or* has been documented in use for a long time in modern English, and in older use was restricted to formal or legal texts. In modern usage, I have found and observed many examples of *and/or* outside these formal domains, suggesting its use has become more widespread and informal. I presented some data from Finnish, a language that already has separate words for inclusive and exclusive disjunction but also uses a calque of *and/or*

(*ja/tai*), which suggests strongly that *and/or* has a component to its usage that goes beyond the simple logical denotation; that is, its pragmatic component of speaker uncertainty.

I have discussed the syntactic behavior of *slash* and *and/or*, and have shown there is no need to propose additional functional layers or syntactic structure to account for the distribution of *slash* and *and/or*. The constraints on these coordinators are shown to be partly extra-syntactic, with elements coming from semantic constraints on interpretation (homoreferentiality of *slash*) or pragmatic constraints on use (speaker uncertainty of *and/or*).

I presented the arguments that show these words are indeed coordinators. The risk of considering such a small number of coordinators in a linguistic inquiry (in many cases, just a single one, *and*) is weaker generalizability. These new coordinators allow us to test the predictions of theories on new coordinators. Syntactic categories are useful generalizations only if it can be proven that properties of the categories hold for all members of the category.

It is exciting to see speakers innovate within a class considered to be very closed with very small membership, and this demonstrates the surprising capacity of speakers to innovate not only within open lexical classes by creating new nouns and verbs based on novel things or actions in the world, but within closed functional classes, innovating specialized words with special meanings and behaviors based solely on grammatical relations and abstractions.

Are there any classes impervious to innovation? And what would it mean if there were or weren't? Pronouns may also have been considered closed, but it is being increasingly recognized that there are additional pronouns in use, and that there is a wealth of innovation around the

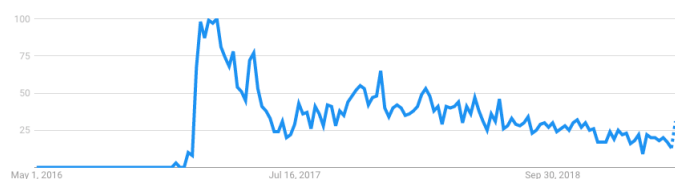
use of singular *they*.¹ *Wh*-words might until recently have been considered closed, yet we have a few examples of new *wh*-words that heavily index internet social meaning and potentially have unique meaning, including *whomst* and *whomst'd've*, which first appeared mid-2016.² It seems that speakers will innovate in any of these supposedly closed classes, in English and other languages like Finnish and ASL, bringing into question the utility of such a distinction in an age of innovation.

I look forward to the next exciting innovation in a class previously thought to be closed, as a continued testament to the boundless creativity of language and those who use it.

¹ See Conrod (2017) for an overview and more discussion.

² A cursory look at Google Trends shows an explosion of usage for *whomst* and *whomst'd've* around mid-2016:

Google Trends Interest over time for *whomst*. [https://trends.google.com/trends/explore? date=2016-04-30%202019-04-30&q=whomst](https://trends.google.com/trends/explore?date=2016-04-30%202019-04-30&q=whomst)



Google Trends Interest over time for *whomst'd've*: [https://trends.google.com/trends/explore? date=2016-04-30%202019-04-30&q=whomstdve](https://trends.google.com/trends/explore?date=2016-04-30%202019-04-30&q=whomstdve)



BIBLIOGRAPHY

- Abbott, Barbara. 1976. Right Node Raising as a test for constituenthood. *Linguistic Inquiry* 7(4). 639–642.
- Abe, Jun & Norbert Hornstein. 2012. "Lasnik-Effects" and String-Vacuous ATB Movement. *Ways of Structure Building* 169–205.
- Abeillé, Anne. 2006. In defense of lexical Coordination. *Empirical Issues in Syntax and Semantics* 6. 7–36.
- Abels, Klaus. 2003. *Successive Cyclicity, Anti-locality and Adposition Stranding*: University of Connecticut dissertation.
- Abels, Klaus. 2004. Right Node Raising: Ellipsis or Across the Board Movement. In Keir Moulton & Matthew Worlf (eds.), *Proceedings of NELS 34*, 45–60.
- Abney, Steven Paul. 1987. *The English noun phrase in its sentential aspect*: MIT dissertation.
- Al-Mutairi, Fahad Rashed. 2014. *The Minimalist Program: The nature and plausibility of Chomsky's Bilingualistics*. Cambridge.

- An, Duk-Ho. 2007. *Syntax at the PF Interface: Prosodic mapping, Linear order, and Deletion*: University of Connecticut dissertation.
- Andrews, J. Richard. 2003. *Introduction to classical nahuatl*. University of Oklahoma.
- Aoun, Joseph, Elabbas Benmamoun & Dominique Sportiche. 1999. Further remarks on first conjunct agreement. *Linguistic Inquiry* 30(4). 669–681. doi:10.1162/002438999554255. <https://doi.org/10.1162/002438999554255>.
- Arunachalam, Sudha. 2013. Experimental methods for linguistics. *Language and Linguistics Compass* 7(4). 221–232. doi:10.1111/lnc3.12021.
- Asarina, Alya. 2011. *Neutrality vs. ambiguity in resolution by syncretism: Experimental evidence and*. MIT.
- Ashby, Michael. 2006. Prosody and idioms in English. *Journal of Pragmatics* 38. 1580–1597. doi:10.1016/j.pragma.2005.03.018.
- Austin, Paddy & Koenraad Kuiper. 1988. Constraints on coordinated idioms. *Te Reo* 31. 3–17.
- Bachrach, Asaf & Roni Katzir. 2009. Right-Node Raising and Delayed Spell-Out. In Kleanthes K. Grohmann (ed.), *Interphases: Phase-theoretic investigations of linguistic interfaces*, 283–316. Oxford University.
- Barros, Matthew. 2010. On Linearizing Multidominance Structures and the Proper Analysis of Right Node Raising Constructions. QP Draft. Rutgers University.

- Barros, Matthew & Luis Vicente. 2011. Right Node Raising Requires both Ellipsis and Multidomination. *University of Pennsylvania Working Papers in Linguistics* 17(1). 1–10.
- Bauer, Laurie. 2008. Dvandvas. *Word structure* 1(1). 1–20.
- Bauer, Laurie. 2010. Co-Compounds in Germanic. *Journal of Germanic Linguistics* 22(3). 201–219.
- Bejan, Camelia. 2008. Some Remarks on Right Node Raising in Romanian. *Bucharest Working Papers in Linguistics* 10(1). 77–85.
- Belnap, Nuel D. & Thomas B. Steel. 1976. *The logic of questions and answers*. Yale.
- Bergmann, Merrie. 1982. Cross-categorial semantics for conjoined common nouns. *Linguistics and Philosophy* 5. 399–401.
- Bhatt, Rajesh & Martin Walkow. 2013. Locating agreement in grammar: An argument from agreement in conjunctions. *Natural Language and Linguistic Theory* 31. 951–1013.
- Bjorkman, Bronwyn. 2013. *A syntactic answer to a pragmatic puzzle: the case of asymmetric and*. Syntax and Its Limits Oxford University.
- Borin, Lars, Markus Forsberg & Johan Roxendal. 2012. KORP – the corpus infrastructure of språkbanken. *Proceedings of LREC 2012. Istanbul: ELRA* 474–478.
- Borsley, Robert D. 2005. Against ConjP. *Lingua* 115(4). 461–482.

- Bošković, Željko. 2004. Two notes on Right Node Raising. *University of Connecticut Working Papers* 13–24.
- Bošković, Željko. 2009. Unifying first and last conjunct agreement. *Natural Language and Linguistic Theory* 27(3). 455–496. doi:10.1007/s11049-009-9072-6.
- Bošković, Željko. 2018. On the Coordinate Structure Constraint, Across-the-board movement, phases, and labeling. Unpublished Ms. LingBuzz.
- Bowers, John. 1993. The Syntax of Predication. *Linguistic Inquiry* 24(4). 591–656.
- Bruening, Benjamin. 2010. Ditransitive Asymmetries and a Theory of Idiom Formation. *Linguistic Inquiry* 41(4). 519–562.
- Bruyn, Bert Le & Henriette de Swart. 2012. Bare coordination: the semantic shift. *Natural Language and linguistic theory*.
- Camacho, José. 2003. *The structure of coordination: Conjunction and agreement phenomena in Spanish and other languages*. Springer.
- Cann, Robbie, Ruth Kempson, Lutz Marten & Masayuki Otsuka. 2005. Right Node Raising, coordination and the dynamics of language processing. *Lingua* 115. 503–525.
- Carlson, Greg N. 1987. Same and different: some consequences for syntax and semantics. *Linguistics and Philosophy* 10(4). 531–565.

- Champollion, Lucas. 2016. Ten men and women got married today. *Journal of Semantics* 33(3). 561–622.
- Chaves, Rui P. 2007. *Coordinate structures: Constraint-based syntax-semantics processing*: Universidade de Lisboa dissertation.
- Chaves, Rui P. 2008. Linearization-Based Word-Part Ellipsis. *Linguistics and Philosophy* 31(3). 261–307.
- Chaves, Rui P. 2012. Conjunction, cumulation and respectively readings. *Journal of Linguistics* 48(2). 297–344.
- Chaves, Rui P. 2014. On the Disunity of Right-Node-Raising Phenomena: Extraposition, Ellipsis, and Deletion. *Language* 90(4). 834–886.
- Cheng, Hsu-Te Johnny. 2009. Right Node Raising: Some perspectives from Mandarin Chinese. In Yun Xiao (ed.), *Proceedings of the 21st north american conference on chinese linguistics*, vol. 2, 482–493. Bryant University.
- Chierchia, Gennaro. 2013. *Logic in grammar: Polarity, free choice, and intervention* (Oxford Studies in Semantics and Pragmatics 2). Oxford University Press.
- Chomsky, Noam. 1957. *Syntactic structures*. Mouton and Co.
- Chomsky, Noam. 1965. *Aspects of the theory of syntax*. MIT Press.

- Chomsky, Noam. 1970. Remarks on nominalization. In R. Jacobs & P. Rosenbaum (eds.), *Reading in english transformational grammar*, 184–221. Waltham: Ginn.
- Chomsky, Noam. 1980. *Rules and representations*. Cambridge: MIT Press.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge: MIT Press.
- Chomsky, Noam. 2000. *Minimalist inquiries: The framework* 89–155. Step by Step Cambridge: MIT Press.
- Chomsky, Noam. 2001. Beyond Explanatory Adequacy. *MIT Occasional Papers in Linguistics* 20.
- Chomsky, Noam. 2005. Three Factors in Language Design. *Linguistic Inquiry* 36(1). 1–22.
- Chomsky, Noam. 2008. On Phases. In Robert Freidin, Carlos P. Otero & Maria Luisa Zubizarreta (eds.), *Foundational issues in linguistic theory: Essays in honor of jean-roger vergnaud*, 1–27. MIT Press. doi:10.7551/mitpress/9780262062787.003.0007.
- Chomsky, Noam. 2013. Problems of projection. *Lingua* 130. 33–49.
- Chung, Dae-Ho. 2008. Some Remarks on Ahn and Cho's (2006) Dual Analysis of Korean RNR. *Linguistic Research* 25(3). 149–169.
- Citko, Barbara. ????. Right Node Raising. To appear in Blackwell Companion to Syntax.
- Citko, Barbara. 2005. On the Nature of Merge: External Merge, Internal Merge, and Parallel Merge. *Linguistic Inquiry* 36(4). 475–496.

- Citko, Barbara. 2008. An argument against assimilating appositive relatives to coordinate structures. *Linguistic Inquiry* 39(4). 633–655.
- Citko, Barbara. 2011a. Multidominance. *The Oxford Handbook of Linguistic Minimalism* .
- Citko, Barbara. 2011b. *Symmetry in Syntax: Merge, Move, and Labels*. Cambridge: Cambridge University Press.
- Citko, Barbara & Martina Gračanin-Yukseš. 2013. Towards a new Typology of Coordinated wh-questions. In Kersti Böjars & S.J. Hannahs (eds.), *Journal of linguistics*, vol. 49, 1–32. Cambridge: Cambridge University Press.
- Citko, Barbara & Martina Gračanin-Yukseš. 2016. Multiple (coordinated) (free) relatives. *Natural Language and linguistic theory* 34. 393–427.
- Clancy, Patricia. 1976. The acquisition of conjunction: A cross-linguistic study. *Papers and reports on child language development* 12. 71–80.
- Clapp, Jessica M. 2008. Right Node Raising: Evidence from 'rule interaction'. In Charles B. Chang & Hannah J. Haynie (eds.), *Proceedings of the 26th west coast conference on formal linguistics*, 129–137. Cascadia.
- Conrod, Kirby. 2017. Changes in singular they. <http://kconrod.herokuapp.com/assets/CHANGES%20IN%20SINGULAR%20THEY.pdf>.

- Cooke, Joseph R. 1968. *Pronominal reference in thai, burmese, and vietnamese.*: UC Berkeley dissertation.
- Cowart, Wayne. 1997. *Experimental syntax: applying objective methods to sentence judgements.* Sage.
- Crain, Stephen. 2008. The Interpretation of Disjunction in Universal Grammar. *Language and speech* 51(1). 151–169.
- Crystal, David. 2015. *Making a Point: The Persnickety Story of English Punctuation.* St. Martins Press.
- Cuetos, F, D C Mitchell & M M B Corley. 1996. Parsing in different languages. In M Carreiras, J Garcia-Albea & N Sabastian-Galles (eds.), *Language processing in Spanish*, 145–190. Hillsdale, NJ: Erlbaum.
- Culicover, Peter W. & Ray Jackendoff. 2005. *Simpler syntax.* Oxford.
- Dalrymple, Mary & Irina Nikolaeva. 2006. Syntax of natural and accidental coordination: Evidence from agreement. *Language* 82(4). 824–849.
- Davidson, Kathryn. 2013. ‘and’ or ‘or’: General use coordination in ASL. *Semantics & Pragmatics* 6(4). 1–44. doi:<http://dx.doi.org/10.3765/sp.6.4>.
- Davies, Mark. 2008. The Corpus of Contemporary American English (COCA): 560 million words, 1990–present. Available online at <https://corpus.byu.edu/coca/>.

- Davies, Mark. 2013. Corpus of Global Web-based English: 1.9 billion words from speakers in 20 countries (glowbe). Available online at <https://www.english-corpora.org/glowbe/>.
- Dell, Gary S. 1995. *Speaking and misspeaking*, vol. An invitation to cognitive science chap. 7, 183–208.
- Desmet, Timothy & Edward Gibson. 2003. Disambiguation preferences and corpus frequencies in noun phrase conjunction. *Journal of Memory and Language* 49(3). 353–374. doi:[https://doi.org/10.1016/S0749-596X\(03\)00025-1](https://doi.org/10.1016/S0749-596X(03)00025-1).
- Dik, S. C. 1968. *Coordination: its implications for the theory of general linguistics*. North-Holland Publishing, Amsterdam.
- Dines, Elizabeth R. 1980. Variation in discourse: And stuff like that. *Language in Society* 9(1). 13–31.
- Dong, Xiufang. 2012. *Lexicalization in the history of the Chinese language* 235–274. Trends in Linguistics. Studies and Monographs [TiLSM]: Newest Trends in the Study of Grammaticalization and Lexicalization in Chinese De Gruyter Mouton.
- Dougherty, Ray C. 1969. *A transformational grammar of coordinate conjoined structures*: MIT dissertation.
- Dougherty, Ray C. 1970. A grammar of coordinate conjoined structures: I. *Language* 46(4). 850–898. <http://www.jstor.org/stable/412260>.

- Dougherty, Ray C. 1971. A grammar of coordinate conjoined structures, ii. *Language* 47(2). 298–339. <http://www.jstor.org/stable/412083>.
- Drellishak, Scott. 2004. *A Survey of Coordination Strategies in the World's Languages*: University of Washington MA thesis.
- Drellishak, Scott. 2005. Coordination and Processing. *University of Washington Working Papers in Linguistics* 24. 1–15.
- Drummond, Alex. 2013. Ibexfarm. spellout.net/ibexfarm.
- Duman, Burcu. 2003. *Right Node Raising and Turkish*: Tilburg University MA thesis.
- Engelhardt, Paul E & Fernanda Ferreira. 2010. Processing coordination ambiguity. *Language and speech* 53(4). 494–509.
- Erbach, Gregor. 1992. Head-Driven Lexical Representation of Idioms in HPSG. *Proceedings of the International Conference on Idioms* 1–15.
- Fábregas, Antonio & Sergio Scalise. 2012. Compounding and other word-formation processes. In *Morphology: From data to theories*, Edinburgh University Press.
- Fay, David & Anne Cutler. 1977. Malapropisms and the Structure of the Mental Lexicon. *Linguistic Inquiry* 8(3). 505–520.

- Featherston, Sam. 2007. Data in generative grammar: the stick and the carrot. *Theoretical Linguistics* 33(3). 269–318.
- Fellbaum, Christiane. 1998. Wordnet: An electronic lexical database. <https://wordnet.princeton.edu>.
- Fernandez-Salgueiro, Gerardo. 2008. *Aspects of the syntax of (TP)-coordination, across-the-board extraction and parasitic gaps*: University of Michigan dissertation.
- Féry, Caroline & Katharina Hartmann. 2005. The Focus and Prosodic Structure of German Right Node Raising and Gapping. *The Linguistic Review* 22. 69–116.
- Forker, Diana. 2013. *A Grammar of Hinuq* (Mouton Grammar Library 63). Mouton de Gruyter.
- Fraser, Bruce. 1970. Idioms within a Transformational Grammar. *Foundations of Language* 6(1). 22–42.
- Frazier, Lyn. 1987. Sentence processing: A tutorial review. In M. Coltheart (ed.), *Attention and performance xii: The psychology of reading*, 601–681. Erlbaum.
- Frazier, Lyn, Alan Munn & Charles Clifton. 2000. Processing coordinate structures. *Journal of Psycholinguistic Research* 29(4). 343–370.
- Fromkin, Victoria A. 1984. *Speech Errors as Linguistic Evidence* *Janua Linguarum. Series Maior*. De Gruyter Mouton.

- Gazdar, Gerald. 1980. A cross-categorial semantics for coordination. *Linguistics and Philosophy* 3. 407–409.
- Gazdar, Gerald. 1981. Unbounded dependencies and coordinate structure. *Linguistic Inquiry* 12(2). 155–184.
- Gazdar, Gerald, Geoffrey K. Pullum, Ivan A. Sag & Thomas Wasow. 1982. Coordination and transformational grammar. *Linguistic Inquiry* 13(4). 663–677. <http://www.jstor.org/stable/4178300>.
- van Gelderen, Elly. 1997. *Verbal agreement and the grammar behind its 'breakdown': Minimalist feature checking*. Walter de Gruyter.
- Gibbs, Raymond W. & Nandini P. Nayak. 1989. Psycholinguistic Studies on the Syntactic Behavior of Idioms. *Cognitive Psychology* 21. 100–138.
- Gibbs, Raymond W., Nandini P. Nayak & Cooper Cutting. 1989. How to Kick the Bucket and Not Decompose: Analyzability and Idiom Processing. *Journal of Memory and Language* 38. 576–593.
- Gibson, Edward, Steve Piantadosi & Kristina Fedorenko. 2011. Using mechanical turk to obtain and analyze English acceptability judgments. *Language and Linguistics Compass* 5(8). 509–524. doi:10.1111/j.1749-818x.2011.00295.x.

- Gil, David. 1991. *Aristotle goes to Arizona and finds a language without 'and'* 96–130. *Semantic universals and universal semantics* Berlin: Foris.
- Gleitman, Lila R. 1965. Coordinating conjunctions in English. *Language* 41(2). 260–293.
- Goldsmith, John. 1985. A principled exception to the Coordinate Structure Constraint. In *Papers from the twenty-first annual regional meeting of the Chicago Linguistic Society*, Chicago Linguistic Society.
- Goodall, Grant. 1987. *Parallel structures in syntax*. UP, Cambridge: Cambridge.
- Goodall, Grant. 2000. Review article: Coordination, by Janne Bondi Johannessen. *Language* 76. 447–449.
- Gračanin-Yuksek, Martina. 2007. *About sharing*: MIT dissertation.
- Gračanin-Yuksek, Martina. 2013. Linearizing Multidominance Structures. In Henk van Riemsdijk (ed.), *Challenges to linearization*, vol. 114 *Studies in Generative Grammar*, 269–294. Mouton De Gruyter.
- Grant, Lynn & Laurie Bauer. 2004. Criteria for re-defining idioms: Are we barking up the wrong tree? *Applied Linguistics* 25(1). 38–61.
- Grosu, Alexander. 1976. A Note on Subject Raising to Object and Right Node Raising. *Linguistic Inquiry* 7(4). 642–645.

- Grosz, Patrick. 2009. Movement and Agreement in Right-Node Raising Constructions. *Handout from GLOW '32 - Nantes, France* .
- Grosz, Patrick. 2015. Movement and Agreement in Right-Node Raising Constructions. *Syntax* 18(1). 1–38.
- Ha, Seungwan. 2006. Multiple Dominance CAN'T, but Ellipsis CAN account for Right Node Raising. *Proceedings of the Regional Meeting of the Chicago Linguistics Society* 1–15.
- Ha, Seungwan. 2008. *Ellipsis, Right Node Raising, and Across-The-Board Constructions*: Boston University dissertation.
- Hagoort, Peter, Colin M Brown & Lee Osterhout. 1999. The neurocognition of syntactic processing. In *The neurocognition of language*, 273–317. Oxford University Press.
- Haida, Andreas & Sophie Repp. 2010. *Local and global implicatures in wh-question disjunctions* 63–73. Amsterdam Colloquium 2009, LNAI 6042 Springer.
- Hale, William Gardner & Carl Darling Buck. 1966. *A Latin grammar*. University of Alabama.
- Hamblin, Jennifer L. & Raymond W. Gibbs. 1999. Why you can't kick the bucket as you slowly die: Verbs in idiom comprehension. *Journal of Psycholinguistic Research* 28(1). 25–39.
- Han, Chungnye & Maribel Romero. 2004. Disjunction, focus, and scope. *Linguistic Inquiry* 35(2). 179–217.

- Hankamer, Jorge. 1973. Unacceptable ambiguity. *Linguistic Inquiry* 4. 17–68.
- Harris, Jesse & Stephanie Rich. 2017. Predicted analyses linger: The case for structural prediction with either-or. Poster Presentation at CUNY 2017.
- Harris, Jesse A. 2016. Processing let alone coordination in silent reading. *Lingua* 169. 70 – 94.
- Harris, Jesse A. & Katy Carlson. 2016. Keep it local (and final): Remnant preferences in “let alone” ellipsis. *The Quarterly Journal of Experimental Psychology* 69(7). 1278–1301. PMID: 26085004.
- Hartmann, Katharina. 2001. *Right Node Raising and gapping: Interface conditions on prosodic deletion*. John Benjamins.
- Hartmann, Katharina. 2003. Background matching in Right Node Raising constructions. In Kerstin Schwabe & Susanne Winkler (eds.), *The interfaces: Deriving and interpreting omitted structures*, 121–151. John Benjamins.
- Hartung, Nele. 2012. *Und-koordination in der frühen Kindersprache: Eine korpusbasierte Untersuchung*: Universität Tübingen dissertation.
- Haslinger, Nina & Viola Schmitt. 2017. Acquisition of semantic type flexibility: The case of conjunction. *Wiener Linguistische Gazette* 82. 109–118.
- Haspelmath, Martin. 2003. The geometry of grammatical meaning: semantic maps and cross-linguistic comparison. *The New Psychology of Language* 2. 211–243.

- Haspelmath, Martin. 2004. *Coordinating constructions: an overview* chap. 1, 3–39. Coordinating constructions John Benjamins.
- Haugereid, Petter. 2014. VP idioms in Norwegian: A subconstructional approach. *Proceedings of the 21st International Conference on HPSG*.
- Heim, Irene. 1985. Notes on comparatives and related matters. Unpublished Ms. University of Texas, Austin.
- Heine, Bernd & Tania Kuteva. 2002. *World Lexicon of Grammaticalization*. Cambridge.
- Hentschel, Elke & Harald Weydt. 1990. *Handbuch der deutschen Grammatik*. Walter de Gruyter.
- Heycock, Caroline & Roberto Zamparelli. 2005. Friends and colleagues: Plurality, coordination, and the structure of DP. *Natural Language Semantics* 13(3). 201–270.
- Hoeks, John C.J., Wietske Vonk & Herbert Schriefers. 2002. Processing coordinated structures in context: The effect of topic-structure on ambiguity resolution. *Journal of Memory and Language* 46(1). 99 – 119.
- Hopper, Paul J. & Elizabeth Closs Traugott. 1993. *Grammaticalization*. Cambridge.
- Horn, Laurence R. 1972. *On the semantic properties of logical operators in English*: UCLA dissertation.

- Hudson, Richard A. 1976. Conjunction Reduction, Gapping, and Right-Node Raising. *Language* 52(3). 535–562.
- Hulsey, Sarah. 2008. *Focus-sensitive coordination*: MIT dissertation.
- İnce, Atakan. 2008. On Right Node Raising. *Proceedings of Workshop on Altaic Formal Linguistics (MITWPIL)* 5.
- İnce, Atakan. 2009. *Dimensions of ellipsis: Investigations in turkish*: University of Maryland dissertation.
- Iyeiri, Yoko, Michiko Yaguchi & Yasumasa Baba. 2010. *Coordinating and subordinating conjunctions in spoken American English*. Noam Chomsky and Language Descriptions John Benjamins.
- Jackendoff, Ray. 1971. Gapping and related rules. *Linguistic Inquiry* 2(1). 21–35.
- Jackendoff, Ray. 1997. *Architecture of the language faculty*. Cambridge: MIT Press.
- Johannessen, Janne Bondi. 1998. *Coordination* Oxford Studies in Comparative Syntax. Oxford.
- Johnson, Kyle. 1996/2003. In search of the middle field.
- Johnson, Kyle. 2000. Few dogs eat whiskers or cats also. *University of Massachusetts occasional papers in linguistics* 23. 59–82.
- Johnson, Kyle. 2007. LCA plus alignment equals RNR. *Workshop on Coordination, Subordination and Ellipsis at University of Tübingen* .

- Karlsson, Fred. 2008. *Finnish: an essential grammar*. Routledge.
- Katzir, Roni & Raj Singh. 2013. Constraints on the lexicalization of logical operators. *Linguistics and Philosophy* 36. 1–29.
- Kayne, Richard S. 1994. *The Antisymmetry of Syntax*, vol. 25 Linguistic Inquiry. Cambridge: MIT Press.
- Kazenin, Konstantin I. 2002. Gapping and some agreement puzzles. Unpublished Ms. University of Tübingen.
- al Khalaf, Aman. 2015. *Coordination and linear order*: University of Delaware dissertation.
- Kimura, Norimi. 1986. Right Node Raising: A null anaphor analysis. *English Linguistics* 11. 118–133.
- Kiss, Katalin. 2012. Patterns of agreement with coordinate noun phrases in Hungarian. *Natural Language and Linguistic Theory* 30. 1027–60. doi:10.1007/s11049-012-9178-0.
- Kluck, Marlies. 2009. Good Neighbors or Far Friends, Matching and Proximity Effects in Dutch Right Node Raising. *Groninger Arbeiten zur Germanistischen Linguistik* 48. 115–158.
- Kluck, Marlies & Mark de Vries. 2013. Cumulative Rightward Processes. In Gert Webelhut, Manfred Sailer & Heike Walker (eds.), *Rightward movement in a comparative perspective*, chap. 8, 281–318. John Benjamins.

- Korhonen, R. 1992. *Buts about conjunctions: A syntactic study of conjunction expressions in Finnish*.
Studia Fennica Linguistica.
- Krifka, Manfred. 1990. Boolean and non-boolean 'and'. In L. Kálman & L. Pólos (eds.), *Papers from the second symposium of logic and language*, Budapest: Akademiai Kiado.
- Krifka, Manfred. 2001. Quantifying into question acts. *Natural Language Semantics* 9. 1–40.
- Kubota, Yusuke. 2014. Medial Right-Node Raising and Multi-Modal Categorical Grammar. Draft.
- Kubota, Yusuke. 2015. Nonconstituent coordination in Japanese as constituent coordination: An analysis in hybrid type-logical categorical grammar. *Linguistic Inquiry* 46(1). 1–42.
- Lakoff, George. 1986. Frame Semantic Control of the Coordinate Structure Constraint. *Papers from the Twenty-Second Annual Regional Meeting of Papers from the 22nd Annual Regional Meeting of the Chicago Linguistic Society*, .
- Lang, Ewald. 1984. *The semantics of coordination*. John Benjamins.
- Larson, Brooke. 2011. Problems with a movement analysis of Right Node Raising in Tagalog. *Linguistic Inquiry* 42(1). 163–171.
- Larson, Brooke. 2012a. A, B, C, or none of the above: A c-command puzzle in Tagalog. In Lauren Eby Clemens, Gregory Scontras & Maria Polinsky (eds.), *Proceedings of the 18th meeting of the Austronesian Formal Linguistics Association*, .

- Larson, Brooke. 2012b. A dilemma with accounts of Right Node Raising. *Linguistic Inquiry* 43(1). 143–150.
- Larson, Brooke. 2013a. The Inherent Syntactic Incompleteness of Right Node Raising. *Workshop on Parenthesis and Ellipsis, Cross-Linguistic and Theoretical Perspectives. 34th Annual Meeting of the German Society of Linguistics*.
- Larson, Brooke. 2013b. *The syntax of non-syntactic dependencies*: University of Maryland dissertation.
- Larson, Richard K. 1985. On the syntax of disjunction scope. *Natural Language and Linguistic Theory* 3. 217–264.
- Lebeaux, David. 1983. A distributional difference between reciprocals and reflexives. *Linguistic Inquiry* 14. 723–730.
- Lebeaux, David. 2009. *Where does binding theory apply?*, vol. 50 *Linguistic Inquiry*. MIT.
- Lee, Wooseung. 2009. *The role of case-marked noun phrases in clause structure building*: University of Illinois at Urbana-Champaign dissertation.
- Levine, Robert D. 1985. Right Node (Non-)Raising. *Linguistic Inquiry* 16(3). 492–497.
- Lewis, Charlton T. & Charles Short. 1879. *A Latin Dictionary*. Oxford: Clarendon.

- Link, Godehard. 1983. The logical analysis of plurals and mass terms: A lattice-theoretical approach. In C Schwartz, R Bäuerle & A von Stechow (eds.), *Meaning, use, and interpretation of language*, 302–323. Walter de Gruyter.
- Link, Godehard. 1984. Hydras: On the logic of relative clause constructions with multiple heads. In F. Landman & F. Veltman (eds.), *Varities of formal semantics*, 245–257. Dordrecht: Foris.
- Linzen, Tal & Yohei Oseki. 2018. The reliability of acceptability judgments across languages. *Glossa: a journal of general linguistics* 3(1). 1–25. doi:<https://doi.org/10.5334/gjgl.528>.
- Lohmann, Arne. 2014. *English coordinate constructions: A processing perspective on constituent order*. Cambridge.
- Longobardi, Giuseppe. 1994. Reference and proper names: A theory of n-movement in syntax and logical form. *Linguistic Inquiry* 25(4). 609–665.
- Lust, Barbara. 1980. Coordination: The role of syntactic, pragmatic and processing factors in its first language acquisition. *Papers and reports on child language development* 19. 79–87.
- Machonis, Peter A. 1985. Transformations of Verb Phrase idioms: Passivization, Particle Movement, Dative Shift. *American Speech* 60(4). 291–308.
- Malchukov, Andrej L. 2004. Towards a semantic typology of adversative and contrast marking. *Journal of Semantics* 21(2). 177.

- Manus, Sophie & Cédric Patin. 2011. The Prosodic structure of Elliptical constructions in Bantu. *4th International Conference on Bantu Languages (B4ntu)*.
- Marušič, Franc, Andrew Nevins & Bill Badecker. 2015. The grammars of conjunction agreement in Slovenian. *Syntax* 18(1). 39–77.
- McCawley, James D. 1982. Parentheticals and Discontinuous Constituent Structure. *Linguistic Inquiry* 13(1). 91–106.
- McCawley, James D. 1993. Gapping with shared operators. *Proceedings of the Nineteenth Annual Meeting of the Berkeley Linguistics Society: General Session and Parasession on Semantic Typology and Semantic Universals* 245–253.
- McCloskey, James. 1986. Right Node Raising and preposition stranding. *Linguistic Inquiry* 17(1). 183–186.
- Merchant, Jason. 2001. *The Syntax of Silence*. Oxford: Oxford University Press.
- Mithun, Marianne. 1988. The grammaticalization of coordination. In John Haiman & Sandra A. Thompson (eds.), *Clause Combining in Grammar and Discourse*, vol. 18 *Typological Studies in Language*, 331–359. John Benjamins.
- Moltmann, Friederike. 1992. *Coordination and Comparatives*: MIT dissertation.
- Montague, Richard. 1970. *English as a formal language* 189–224. *Linguaggi nella Società e nella Tecnica Edizioni di Comunità*.

- Morgan, Emily & Roger Levy. 2016. Abstract knowledge versus direct experience in processing of binomial expressions. *Cognition* 157(Supplement C). 384 – 402. doi:<https://doi.org/10.1016/j.cognition.2016.09.011>. <http://www.sciencedirect.com/science/article/pii/S0010027716302335>.
- Muadz, Husni. 1991. *Coordinate structures: A planar representation*: University of Arizona dissertation.
- Müller, Gereon. 2011. *Constraints on displacement: A phase-based approach*: Universität Leipzig dissertation.
- Munn, Alan Boag. 1987. Coordinate structure and X-bar theory. *McGill Working Papers in Linguistics* 4(1). 121–140.
- Munn, Alan Boag. 1993. *Topics in the syntax and semantics of coordinate structures*: University of Maryland dissertation.
- Munn, Alan Boag. 1998. ATB movement without identity. *Proceedings of ESCOL 97* .
- Munn, Alan Boag. 1999. On the identity requirement of ATB extraction. *Natural Language Semantics* 7(4). 421–425.
- Muysken, Pieter. 2008. *Functional Categories*, vol. 117 Cambridge Studies in Linguistics. Cambridge.

- Myers, James. 2009. Syntactic Judgment Experiments. *Language and Linguistics Compass* 3(1). 406–423.
- Nakao, Chizuru. 2010. Japanese Left Node Raising as ATB-scrambling. *University of Pennsylvania WPL* 16(1). 156–165.
- Newman, Paul. 2000. *The Hausa language*. Yale.
- Nunberg, Geoffrey. 1990. *The Linguistics of Punctuation* (CSLI Lecture Notes 18). CSLI.
- Oehrle, Richard T. 1987. *Boolean properties in the analysis of gapping*, vol. 20 203–240. *Syntax and semantics* Academic Press.
- O’Grady, William. 1998. The syntax of idioms. *Natural Language and Linguistic Theory* 16(2). 279–312.
- Ohuri, Toshio. 2004. Coordination in Mentalese. In Martin Haspelmath (ed.), *Coordinating constructions* (Typological Studies in Language 58), chap. 2, 41–66. Amsterdam: John Benjamins.
- van Oirsouw, R. 1987. *The syntax of coordination*. Croom Helm.
- Olsen, Susan. 2000. Copulative compounds: A closer look at the interface between syntax and morphology. In Geert Booij & Jaap van Marle (eds.), *Yearbook of morphology*, 279–320. Kluwer.
- Olsen, Susan. 2004. Coordination in morphology and syntax: the case of copulative compounds.

- In Alice G. B. ter Meulen & Werner Abraham (eds.), *The Composition of Meaning: From lexeme to discourse*, vol. 225 *Current Issues in Linguistic Theory*, 14–. John Benjamins.
- Olsen, Susan. 2007. Coordination in morphology and syntax: the case of copulative compounds. *GAGL: Groninger Arbeiten zur germanistischen Linguistik* 44(7). 87–101.
- Oshima, Shin & Katsunori Kotani. 2008. A Minimalist analysis of coordination: Deconstructing the Coordinate Structure Constraint. *English Linguistics* 25(2). 402–438.
- Park, Myung-Kwan. 2009. Right Node Raising as Conjunction Reduction Fed by Linearization. *Language Research* 25(2). 179–202.
- Park, Myung-Kwan. 2010. RNR as Midway Conjunction equals External Reemerge. *Studies in Modern Grammar* 61. 25–50.
- Park, Myung-Kwan. 2011. What makes a unification possible in Right Node Raising constructions of english. *Linguistic Research* 28(3). 451–469.
- Partee, Barbara & Mats Rooth. 1983. Generalized conjunction and type ambiguity. In R Bäuerle, C Schwartze & A von Stechow (eds.), *Meaning, use, and interpretation of language*, 361–383. Walter de Gruyter.
- Payne, John R. 1985. Complex phrases and complex sentences. In Timothy Shopen (ed.), *Language typology and syntactic description vol. 2: complex constructions*, Cambridge University Press.

- Peterson, Carole & Allyssa McCabe. 1987. The structure of and coordinations in children's narratives. *Journal of Psycholinguistic Research* 16(5). 467–490. doi:10.1007/BF01073273. <https://doi.org/10.1007/BF01073273>.
- Peterson, Peter G. 2004. Coordination: Consequences of a lexical-functional account. *Natural Language and Linguistic Theory* Kluwer Academic Publishers(22). 643–679.
- Phillips, Colin. 2010. Should we impeach armchair linguists. In S. Iwasaki (ed.), *Japanese/korean linguistics*, vol. 17, CSLI Publications.
- Postal, Paul M. 1998. *Three Investigations of Extraction*. Cambridge: MIT Press.
- Pozzan, Lucia, Lila R. Gleitman & John C. Trueswell. 2016. Semantic ambiguity and syntactic bootstrapping: The case of conjoined-subject intransitive sentences. *Language Learning and Development* 12(1). 14–41. doi:10.1080/15475441.2015.1018420.
- Prażmowska, Anna. 2015. Is unlike coordination against the law (of the coordination of likes). In Anna Bondaruk, Anna Bloch-Rozmej, Wojciech Malec, Ewelina Mokrosz & Sławomir Zdziebko (eds.), *Young minds vs. old questions in linguistics: Proceedings of the fourth central european conference in linguistics for postgraduate students*, 164–184. The Institute of East-Central Europe and the John Paul II Catholic University of Lublin.
- Progovac, Ljiljana. 1998a. Structure for Coordination, part I. *GLOT International* 3(7). 3–6.
- Progovac, Ljiljana. 1998b. Structure for Coordination, part II. *GLOT International* 3(8). 3–9.

- Progovac, Ljiljana. 1999. Events and economy of coordination. *Syntax* 2(2). 141–159.
- Progovac, Ljiljana. 2002. Correlative conjunctions and events. a reply to a reply. *Syntax* 5(3). 277–283.
- Puškar, Zorica & Andrew Murphy. 2017. Closest conjunct agreement is an illusion. *Natural Language and Linguistic Theory* .
- Renner, Vincent. 2008. On the Semantics of English Coordinate Compounds. *English Studies* 89(5). 606–613.
- Renner, Vincent. 2013. English cum, a borrowed coordinator turned complex-compound marker. *Morphology* 23(1). 57–66.
- Repp, Sophie. 2009. *Negation in gapping*. Oxford.
- Ross, Haj. 2010. Transformations - a longer list. Unpublished.
- Ross, John Robert. 1967. *Constraints on variables in syntax*: MIT dissertation.
- Roy, Isabelle. 2013. *Nonverbal predication: Copular sentences at the syntax-semantics interface* chap. Predication, nonverbal stative predicates and copular sentences. Oxford.
- Rudin, Catherin. 2016. Coordination and related constructions in Omaha-Ponca and in Siouan languages. In Catherin Rudin & Bryan J. Gordon (eds.), *Advances in the study of Siouan languages and linguistics*, 369–395. Berlin: Language Science Press.

- Sabbagh, Joseph. 2007. Ordering and Linearizing Rightward Movement. *Natural Language Linguistic Theory* 25. 349–401.
- Sabbagh, Joseph. 2008. Extraction and RNR in Tagalog. In *Linguistic inquiry*, vol. 39 3, 502–511. Cambridge: MIT Press.
- Sabbagh, Joseph. 2014. Right Node Raising. *Language and Linguistics Compass* 8(1). 24–35.
- Sag, Ivan A. 2003. Coordination and underspecification. In Jong-Bok Kim & Stephen Wechsler (eds.), *The proceedings of the 9th international conference on hpsg*, 267–291.
- Sag, Ivan A., Gerald Gazdar, Thomas Wasow & Steven Weisler. 1985. Coordination and how to distinguish categories. *Natural Language and linguistic theory* 3. 117–171.
- Sampson, Geoffrey. 1975. The Single Mother Condition. *Journal of Linguistics* 11(1). 1–11.
- Schachter, P. 1977. Constraints on Coordination. *Language* 53. 86–103.
- Schein, Barry. 2017. *‘And’: Conjunction reduction redux*. Cambridge: Mass.: MIT Press.
- Schwarz, Bernhard. 1999. On the syntax of Either... Or. *Natural Language and Linguistic Theory* 17. 339–370.
- Shapiro, Mary Beth. 1997. *Style Shifting: The perception and production of formality in English*: UT Austin dissertation.

- Shiobara, Kayono. 2012. A Prosodic Approach to Ditransitive Idioms. *Proceedings of FAJL 5: Formal Approaches to Japanese Linguistics* 241–250.
- Siegel, MEA. 1984. Gapping and interpretation. *Linguistic Inquiry* 15. 523–30.
- Smith, Peter W., Beata Moskal, Katharina Hartmann & Zheng Shen. 2017. Feature resolution, feature conflicts and the structure of either... or. Presentation at Resolving Conflicts Across Borders workshop & SinFonIJA 10.
- Sneddon, James Neil. 2010. *Indonesian: A comprehensive grammar*. Routledge.
- Sobin, Nicholas. 1997. Agreement, default rules, and grammatical viruses. *Linguistic Inquiry* 28(2). 318–343.
- Sprouse, Jon. 2010. A validation of amazon mechanical turk for the collection of acceptability judgments in linguistic theory. *Behavior Research Methods* 43(1). 155–167.
- Sprouse, Jon & Diogo Almeida. 2012. Assessing the reliability of textbook data in syntax: Adger's Core Syntax. *Journal of Linguistics* 48(3). 609–652. doi:<https://doi.org/10.1017/S0022226712000011>.
- Sprouse, Jon & Diogo Almeida. 2013. The empirical status of data in syntax: A reply to Gibson and Fedorenko. *Language and Cognitive Processes* 28(3). 222–228. doi:10.1080/01690965.2012.703782.

- Sprouse, Jon & Diogo Almeida. 2017. Setting the empirical record straight: Acceptability judgments appear to be reliable, robust, and replicable. *Behavioral and Brain Sciences* 40. doi: <https://doi.org/10.1017/S0140525X17000590>.
- Sprouse, Jon, Carson T. Schütze & Diogo Almeida. 2013. A comparison of informal and formal acceptability judgments using a random sample from Linguistic Inquiry 2001–2010. *Lingua* 134. 219–248. doi:10.1016/j.lingua.2013.07.002.
- Stassen, Leon. 2000. AND-languages and WITH-languages. *Linguistic Typology* 4. 1–54.
- Staub, Adrian & Charles Clifton, Jr. 2006. Syntactic Prediction in Language Comprehension: Evidence from Either... or. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 32(2). 425–436.
- Stoet, Gijsbert. 2010. Psytoolkit - a software package for programming psychological experiments using linux. *Behavior Research Methods* 42(4). 1096–1104.
- Stoet, Gijsbert. 2017. Psytoolkit: A novel web-based method for running online questionnaires and reaction-time experiments. *Teaching of Psychology* 44(1). 24–31.
- Stowell, Tim. 1991. Determiners in NP and DP. In Katherine Leffel & Denis Bouchard (eds.), *Views on phrase structure*, 37–56. Kluwer Academic Publishers.
- Sturt, Patrick & Vincenzo Lombardo. 2005. Processing coordinated structures: Incrementality and connectedness. *Cognitive Science* 29(2). 291–305.

- Svenonius, Peter. 2005. Extending the Extension Condition to Discontinuous Idioms. *Linguistic Variation Yearbook* 5. 227–263.
- Swingle, Kari. 1993. The role of prosody in Right Node Raising. Ms. UCSC.
- Szabolcsi, Anna. 1997. *Quantifiers in pair-list readings* 311–342. Ways of scope taking Kluwer.
- Szabolcsi, Anna. 2016. Direct vs. indirect disjunction of wh-complements, as diagnosed by subordinating complementizers.
- Tager-Flusberg, Helen, Jill De Villiers & Kenji Hakuta. 1982. The development of sentence coordination. In S. A. Kuczaj (ed.), *Language development*, vol. 1, 201–243.
- Tai, James H-Y. 1969. *Coordination reduction*: Indiana University dissertation.
- Taraldsen, Knut Tarald. 2000. V-movement and vp-movement in derivations leading to vo-order. *The derivation of VO and OV* .
- Toosarvandani, Maziar. 2013. Corrective but coordinates clauses not always but sometimes. *Natural Language and Linguistic Theory* 31. 827–863. doi:10.1007/s11049-013-9198-4.
- Toosarvandani, Maziar. 2014. Contrast and the structure of discourse. *Semantics & Pragmatics* 7(4). 1–57.
- Traugott, Elizabeth Closs. 1982. *From propositional to textual and expressive meanings: Some*

- semantic-pragmatic aspects of grammaticalization* 245–271. Perspectives on historical linguistics John Benjamins.
- Traugott, Elizabeth Closs. 1986. On the origins of ‘and’ and ‘but’ connectives in English. *Studies in Language* 10. 137–150.
- Troseth, Erika. 2009. Degree inversion and negative intensifier inversion in the English DP. *The linguistics review* 26(1). 37–65.
- Tsohatzidis, Savas L. 2001. Correlative and noncorrelative conjunctions in argument and nonargument positions. *Syntax* 4(1). 23–33.
- Valmala, Vidal. 2013. On Right Node Raising in Catalan and Spanish. *Catalan Journal of Linguistics* 12. 219–251.
- te Velde, John R. 2006. *Deriving coordinate symmetries: A phase-based approach integrating select, merge, copy and match* (Linguistik Aktuell 89). John Benjamins.
- Vicente, Luis. 2009. A Note on the Copy vs. Multidominance Theories of Movement. *Catalan Journal of Linguistics* 8. 75–97.
- Vicente, Luis. 2010. On the syntax of adversative coordination. *Natural Language and Linguistic Theory* 28. 381–415.
- de Vos, Mark & Luis Vicente. 2005. Coordination under Right Node Raising. *Proceedings of 24th WCCFL* 97–104.

- de Vries, Mark. 2005. Invisible constituents: parentheses as merged adverbial phrases. *Parentheticals* 203–234.
- de Vries, Mark. 2006. The syntax of appositive relativization. *Linguistic Inquiry* 37. 229–270.
- de Vries, Mark. 2009a. On Multidominance and Linearization. *Biolinguistics* 3. 344–403.
- de Vries, Mark. 2009b. Specifying coordination: An investigation into the syntax of dislocation, extraposition, and parenthesis. *Language and linguistics: Emerging trends* 37–98.
- de Vries, Mark. 2010. Apparent Nonlocality. *Linguistics in the Netherlands* 27. 129–140.
- de Vries, Mark. 2013. Multidominance and Locality. *Lingua* 134. 149–169.
- Wälchi, Bernhard. 2005. *Co-compounds and natural coordination*. Oxford.
- Wang, Yuyun. 2014. *The theory of empty noun in chinese: With special reference to the Right Node Raising construction*: University of Southern California dissertation.
- Wasow, Thomas & Jennifer Arnold. 2005. Intuitions in Linguistic Argumentation. *Lingua* 115. 1481–1496.
- Weisser, Philipp. 2014. *Derived coordination. a Minimalist perspective on clause chains, converbs and asymmetric coordination*: University of Leipzig dissertation.
- Wexler, Kenneth & Peter W. Culicover. 1980. *Formal principles of language acquisition*. Cambridge: MIT Press.

- Whitman, Neal. 2004. *Category neutrality: A type-logical investigation*. Routledge.
- Wilder, Chris. 1994. Coordination, ATB, and ellipsis. *GAGL: Groninger Arbeiten zur germanistischen Linguistik* 37. 291–329.
- Wilder, Chris. 1999. Right Node Raising and the LCA. *Proceedings of WCCFL* 18. 586–598.
- Wilder, Chris. 2008. *Shared Constituents and Linearization* chap. 10, 229–258. *Topics in Ellipsis* Cambridge.
- Willer-Gold, Jana, Boban Arsenijević, Mia Batinić, Nermina Čordalija, Marijana Kresić, Nedžad Leko, Lanko Marušić, Tanja Miličev, Nataša Miličević, Ivana Mitić, Andrew Nevins, Anita Peti-Stantić, Branimir Stanković, Tina Šuligoj & Jelena Tušek. 2016. Conjunct agreement and gender in South Slavic: From theory to experiments to theory. *Journal of Slavic Linguistics* 24(1). 187–225. doi:10.1353/jsl.2016.0003.
- Williams, Edwin. 1978. Across-the-board rule application. *Linguistic Inquiry* 9(1). 31–43.
- Williams, Edwin. 1981. Transformationless grammar. *Linguistic Inquiry* 12(4). 645–653.
- Winter, Nicholas. 2018. The syntax of coordinate structure complexes. In Wm. G. Bennett, Lindsay Hracs & Dennis Ryan Storoshenko (eds.), *Proceedings of the 35th west coast conference on formal linguistics*, 438–447. Cascadilla Proceedings Project.
- Winter, Yoad. 1998. *Flexible boolean semantics: Coordination, plurality and scope in natural language*: Utrecht University dissertation.

- Winter, Yoad. 2001. *Flexibility principles in boolean semantics: The interpretation of coordination, plurality, and scope in natural language*. MIT.
- Woo, Brent. 2016. Effable slash: an intersective coordinator and its behavior slash properties. *Proceedings of the Linguistics Conference at the University of Georgia 3*.
- Woo, Brent. 2017a. Innovation in functional categories: Slash a new coordinator in English. *English Language and Linguistics* 1–24. doi:10.1017/S1360674317000557.
- Woo, Brent. 2017b. The union of conjunction and disjunction: The case of and/or. In Patrick Farrell (ed.), *Proceedings of the linguistic society of america*, vol. 2, 1–9.
- Woo, Brent. Ms. We'll burn that bridge when we get to it: Thematic coherence in identifying idiom blends. Presentation at UC Davis Symposium on Language Research 4.
- Yatabe, Shūichi. 2003. A linearization-based theory of summative agreement in peripheral-node raising constructions. *Proceedings of the 9th International Conference on HPSG*.
- Zhang, Niina Ning. 2010. *Coordination in syntax* (Cambridge Studies in Linguistics 123). Cambridge.
- Zifonun, Gisela, Ludger Hoffmann & Bruno Strecker. 1997. *Grammatik der deutschen Sprache*, vol. 7 Schriften des Instituts für deutsche Sprache. New York: Walter de Gruyter.
- Zoerner, Cyril Edward. 1995. *Coordination: the syntax of &p*: UC Irvine dissertation.

Zwart, Jan-Wouter. 2005. The coordinate structure constraint: a minimalist perspective. Unpublished Handout for Workshop on Verb Clusters and Coordination in Leiden.

Appendix A

CORPUS OF SLASH-COORDINATION

A collection of the author's observed examples of slash. I include the source where I had documented it, but not all the examples have attribution. I also cannot claim that these are all native or completely well-formed examples. However, I can say that for all of the examples that occurred in spontaneous conversation, it was never met with voiced confusion or hesitation.

- (1) we need someone as backup slash proper know-how
- (2) i think the parenthetical should be included in the objectives or slash how to get results
- (3) It had been the family church when Uncle Jasper and Mona slash Maud were small and it was Anglican. - alice munro. Haven. P127.
- (4) The tour that Shakira canceled slash postponed
- (5) I want someone else to be able to use it slash myself be able to use it when the time comes.
- (6) Lots of stuff by Independent artists slash poor linguists
- (7) It's kinda weird because I'm transferring from Spanish Lit to Cog sci slash I'm transferring in my third year slash I have to ask my committee for recs

- (8) Sometimes in “ASL” We went during spring slash summer time <https://youtu.be/N25z7S4mJNE?t=157>
- (9) One dropped slash was kicked out
- (10) what do you get the man who has everything slash nothing . 6:10Jaime on MDWAP Mara Wilson
- (11) it’s part of the charm slash horror of the books that he doesn’t know these things 6:20 Mara Wilson on MDWAP
- (12) Youre already in the bath slash shower. Jaime on MDWAP Belinda’s CV beginning
- (13) 46:00 social psychology is the most social justice slash left-leaning part of psychology and its methods are, generally, appalling
- (14) 45:30 protection of the kin slash in-group
- (15) 44:07 you’re unbelievably hostile to anyone who’s outside of that, that you regard as a thread slash predator
- (16) if you put to them a choice between social justice slash all-consuming compassion and freedom of expression, they’re going to tilt hard toward the social justice compassion...
- (17) I am asking a GSR slash Lab Rat question - Olga in Nataliya’s 12/5 exam
- (18) If you end up saying Yes to too many things that override your study slash alone time

- (19) You don't play when the first flute and the third flute slash piccoloist plays [AGREEMENT]
- (20) I imagine him on the beach in his white fronts(?) slash speedo https://www.youtube.com/watch?v=0iO_KJAQ38Y 2:45
- (21) He never actually told me he was writing erotica slash porn https://youtu.be/q9ZcJZtc_iA 1:25
- (22) depends on iconic slash scalar frequency
- (23) the first success story I had was when I auditioned for my local wind ensemble slash youth orchestra https://www.youtube.com/watch?v=ZyeZF_GVadY (0:33)
- (24) 2,000 does tend to be around the cost of the step-up slash maybe lower-intermediate flute.
- (25) Can I have euphoniums slash alto saxophones
- (26) It's not the case that ever brown bag slash round table needs aZoom
- (27) It'll be a syntax slash semantics thing
- (28) how long do you want to talk slash....?
- (29) naomi slash brent
- (30) research assistant slash lab manager
- (31) Alton brown cast ep56 (27:56) : the thing that season 4 and 5 taught me slash I think most of the culinary team

- (32) Yochai Maital (narration): Following the War of Independence, most of these citrus groves in the area between Jaffa and Tel Aviv were abandoned slash deserted slash confiscated (depending on your political point of view). (99pi, Ep 206, <http://99percentinvisible.org/episode/stop-that-bus/transcript>)
- (33) Kurtosis is how flat or peaked slash normal the pitch is
- (34) It's like a socio slash historical ling homework (nataliya 5/15 TA meeting)
- (35) That sounds like a GPSS slash cleaning committee issue. Lpan 4/21 LSUW meeting
- (36) These ugly slash beautiful creatures just go along constantly making things better than they found it (BB season 7x14 Aquaticism)
- (37) Two keys. For me and my daughter slash BFF. (BB season 7 ep mom hotel)
- (38) Japanese definitely has habitual slash progressive
- (39) Chance has the best slash worst puppy eyes
- (40) I was taking a six hour bus ride and the only free seat was next to a girl using two outlets. She said I need to charge my work slash personal phone.
- (41) These ones in the rear have different load resistors slash decoders.
- (42) Louise: Excuse me, who is slash was this guy? (Bob's burgers 3x9 God rest ye mannequins)
- (43) Gene: This is more of an extended jingle jam slash demo reel. (Bob's burgers 3x8 Unbear-

able Like-likeness)

- (44) Maybe activists slash documentarians can't have any friends no matter how many cows they save. Bobs burgers 1x3
- (45) Oh Hello Bob! I forgot you lived slash worked here. (Bob's Burgers 2x5)
- (46) What are these kids doing here? / They're our kids. They work slash live here. (Bob's B 2x2)
- (47) He's a phonetics slash can person
- (48) This is the first official band practice slash band lunch for the Itty Bitty Ditty Committee. (Bob's b 5x17)
- (49) When a mysterious cowboy slash Santa says Come with me You climb on that horse and ride. (Bobs b 5x6 - subtitled as cowboy/Santa)
- (50) Without any further ado we present to you the musical rom com slash action thriller - work hard or die trying , Girl. (5x1)
- (51) You're going to put on the guerilla slash protest production of Diehard The Musical on the same night in here! (Bobs B 5x1)
- (52) Hey T how's my writer slash it girl doing? (Bobs B 7x6)
- (53) We celebrate like a month and a half of Christmas slash New Years

- (54) your wife slash husband
- (55) Private... He's kind of our secretary slash mascot. Penguins movie
- (56) He kicked slash upended the bucket.
- (57) Egli declined politely slash embarrassedly. (Molly 10/28)
- (58) Of mice and men is an example of a play slash novelette.
- (59) I ran into one of my family friends slash customers at the Bartell's on Rainier [JT 10/28]
- (60) Back in the 1800s there were no pharmacists, only physicians slash drug assistants.
- (61) Do you want tea slash drinks.
- (62) I invited my sister slash anyone else who wants to come.
- (63) We'll ask Citko 2005 slash Real Citko tomorrow
- (64) My cats slash best friends sauntered in. (Yacovone. Plural slash?)
- (65) Test for antecedents = my doctor slash secretary bit herself.
- (66) My friend was doing a Phd slash career change. (Courtney Buchsenmann)
- (67) I'm rapper slash actress Queen Latifah. Bobs burgers 2x11 Halloween
- (68) Meeting with your advisor and therapist can be therapeutic. / meeting with your advisor slash therapist can be therapeutic.

- (69) Just a sip of beer... that's what they serve these days at the home slash beach slash pub.
[pronounced. Mike Birbiglia - My Girlfriend's Boyfriend 1:08:42]
- (70) A: What are you doing? // B: Office hours slash watching Olympics.
- (71) Terratoma slash neuroblastoma. Means we don't know which one yet.
- (72) Point of order slash information
- (73) There are four types of business And hospitals slash industries. (Office
- (74) He does American studies slash computational linguistics
- (75) Is my bowl slash spoons still in the dishwasher?
- (76) Did you get dish soap slash can i go get some?

Appendix B

MATERIALS FOR EXPERIMENT 1**Slash-coordination**

N-slash-N

- (1) John is a good doctor slash lawyer.
- (2) Mary is a talented actress slash socialite.

DP-slash-DP

- (3) John is a doctor slash a lawyer.
- (4) Mary is an actress slash a socialite.

A-slash-A

- (5) I'm happy slash jealous.
- (6) Those people are rich slash productive.

V-slash-V

(7) Tom will tapdance slash sing.

(8) Ted will be working slash blogging.

VP-slash-VP

(9) I will watch movies slash do yoga.

(10) I will buy websites slash maintain blogs.

And-coordination

N-and-N

(11) John is a doctor and lawyer.

(12) Mary is a talented actress and socialite.

DP-and-DP

(13) John is a doctor and a lawyer.

(14) Mary is an actress and socialite.

A-and-A

(15) I'm happy and jealous.

(16) Those people are rich and productive.

V-and-V

(17) Tom will tapdance and sing.

(18) Ted will be working and blogging.

VP-and-VP

(19) I am watching movies and doing yoga.

(20) I will buy websites and maintain blogs.

Good fillers

(21) The authorities don't handout freebies.

(22) Ned shoved his cap back.

(23) The athlete's heart pumps hard.

(24) Sport is the opiate of the people.

(25) Mary is filming a documentary.

Bad fillers

- (26) Jeff saw both Virginia or Mary.
- (27) I drank coffee and became prouds.
- (28) Consciousness does not obscures reality.
- (29) Robert pushed these coach away.
- (30) Ramsey traveled went to the lighthouses.

Appendix C
MATERIALS FOR EXPERIMENT 2

DP-slash-DP

- (1) I met the host of The Apprentice slash the President of the US.
- (2) I am a big fan of the Terminator slash the ex-governor of California.
- (3) I fight often with the wife of my father slash my mom.
- (4) John always argues with Mary: his friend slash his enemy.
- (5) Mike is the mayor of Seattle slash my neighbor.
- (6) Bill Gates is the founder of Microsoft slash the philanthropist of our time.
- (7) Can I have a watered-down espresso slash an Americano?
- (8) Todd became an amazing doctor slash a terrible writer.
- (9) I have read every work by the Bard of Avon slash the greatest writer.

NP-slash-NP

- (10) I met the host of The Apprentice slash President of the US.

- (11) I am a big fan of the Terminator slash ex-governor of California.
- (12) I fight often with my mom slash wife of my father.
- (13) John always argues with Mary: his friend slash enemy.
- (14) Mike is the mayor of Seattle slash neighbor.
- (15) Mike is my neighbor slash mayor of Seattle.
- (16) Can I have a watered-down espresso slash Americano?
- (17) Bill Gates is the founder of Microsoft slash philanthropist of our time.
- (18) Todd became an amazing doctor slash terrible writer.
- (19) I have read every work by the Bard of Avon slash greatest writer.

Good fillers

- (20) The authorities don't handout freebies.
- (21) Ned shoved his cap back.
- (22) The athlete's heart pumps hard.
- (23) Sport is the opiate of the people.
- (24) Mary is filming a documentary.

Bad fillers

- (25) Jeff saw both Virginia or Mary.
- (26) I drank coffee and became prouds.
- (27) Consciousness does not obscures reality.
- (28) Robert pushed these coach away.
- (29) Ramsey traveled went to the lighthouses.

Appendix D

MATERIALS FOR EXPERIMENT 3**Hybridizable**

Clothes

- (1) Bella bought the speedo slash shorts.
- (2) Ben is wearing a sweater slash jacket.

Food

- (3) Lucas cooked a casserole slash stew.
- (4) Larry is eating soup slash chili.

Professions

- (5) Charlotte works part-time as a golfer slash writer.
- (6) Charles has a job as a bartender slash secretary.

Abstract characteristics

(7) Ethan is famous for his courage slash stubbornness.

(8) Evan is notorious for his empathy slash compassion.

Groups

(9) Skylar plays clarinet in the orchestra slash symphony.

(10) Samuel has a meeting for his club slash fellowship.

Devices

(11) Benjamin broke his phone slash computer.

(12) Brian needs to fix his laptop slash tablet.

Facilities

(13) Emma visited the zoo slash gymnasium.

(14) Earl needs to go to the airfield slash cafeteria.

Celestial bodies

(15) Oliver marveled at the galaxy slash nebula.

(16) Paul observed the quasar slash supernova.

Liquids

- (17) Ella chooses to drink vodka slash juice.
- (18) Ethan always drinks milk slash coffee.

Textiles

- (19) Logan only wears cotton slash cashmere.
- (20) Lee prefers to wear polyester slash nylon.

Non-hybridizable

Animals

- (21) Michael can't wait to get home to his bulldog slash tomcat.
- (22) Mary hunted for a horse slash crocodile.

Instruments

- (23) Camila enjoys performing on the flute slash piano.
- (24) Carl hates playing the saxophone slash trombone.

Natural terrain

(25) Wyatt went to the beach slash jungle.

(26) Wayne liked to frolic in the meadow slash forest.

Plants

(27) Maya loves the smell of a tulip slash iris.

(28) Mike marvels at the brilliant daisy slash rose.

Fruit

(29) David went to the produce stand to buy a pear slash banana.

(30) Daniel wants to eat a mango slash apple.

Vegetables

(31) Nora is steaming the broccoli slash carrot.

(32) Neal is chopping the cucumber slash radish.

Sports

(33) Nathan loves to play basketball slash soccer.

(34) Nolan likes doing some yoga slash tennis.

Vehicles

(35) Leah drives a sedan slash hatchback.

(36) Lionel drives a truck slash SUV.

Furniture

(37) Joseph went to the store to buy a table slash cabinet.

(38) Jenny built a bookcase slash bed.

Crockery and cutlery

(39) Addison is eating with a knife slash fork.

(40) Alexa washed the bowl slash cup.

Good fillers (from [Whitman 2004](#))

(41) Everyone knows that you can't mix oil and water.

(42) Please stop by if you're in town.

(43) It's great that you're finally graduating.

(44) If and when she shows up, I will tell her happy birthday.

- (45) Why don't we all just calm down and talk about this like adults?
- (46) Nothing can stop them now.
- (47) Whatever you want is fine with me.
- (48) Writers should not be allowed to interfere.
- (49) He establishes a balance between the beautiful and the ugly.
- (50) Isaac is also a bit of a hipster.
- (51) Readers are looking for hints and clues.
- (52) A vision came to him in the night.
- (53) It is essential to be aware that you are practicing rhythmically.
- (54) Whales swim in the Pacific Ocean.
- (55) Most of us have to work hard to make it.
- (56) Todd is a noisy and insensitive roommate.

Bad fillers (from [Whitman 2004](#))

- (57) The doctor will can't see you now.
- (58) The structure wasn't damaged, even though it directly was hit.

- (59) They don't know or why safety device fail.
- (60) It happened on the third November, when Dorothy was turning 5.
- (61) What did you he?
- (62) You could me be prosecute belong this.
- (63) The movie was sold in time we it at the box office.
- (64) Was two years, and he's still living sleeping here.
- (65) When happen?
- (66) This is one my favorite movie of every time.
- (67) Who died made boss?
- (68) She start the job, and the be finish it.
- (69) Ceremony begin onto 7:00 sharp.
- (70) The garden never be the same.
- (71) When and where the incident occur?
- (72) Marsha never answering to the phone during dinner.
- (73) I'm going this where you'll never.
- (74) Will CDs go the way 8-track?

- (75) You've so far, throw away, is not.
- (76) If you done so already, you they immediately.
- (77) All Sarah answered all the questions, she test.

Appendix E

CORPUS RESULTS

NP-slash-NP

- (1) **abstract.** hetta # Sn? hetta, a Norwegian architecture firm, has made a dream slash nightmare I never knew I had come to life: they're building Europe's
- (2) **event.** of Potomac " who really lives in Potomac, was spotted at an open house slash house party thrown by socialite Paul Wharton (seriously this guy is everywhere).
- (3) **place.** storefront is a café or eatery. # We stand outside Balkanika, a gourmet delicatessen slash wine bar. A ginormous deli case containing dips, spreads, borek, and
- (4) **profession.** these guys, the celebrity generates this buzz. Drew and I have shared clients slash patients countless times and there is kind of a tug-of-war. COOPER# Drew, there
- (5) **profession.** only my very best friend on planet Earth, but she was also my receptionist slash research assistant who was darned near becoming a fantastic skiptracer. And she was my
- (6) **place.** at the back of the muster room into an even smaller space, a kitchenette slash break room: sink, fridge, microwave, round table and black plastic chairs

- (7) **thing.** cocaine snorting. UNIDENTIFIED-MALE: Yes. PALIN: I think it's funny that the cocktail circuit slash circuit gives me a hard time for eating elk and moose. Come on,
- (8) **thing.** " I wasn't the type to get excited about the city's annual movie slash music fest, no matter how prestigious. # Gabe ignored me. " So
- (9) **profession.** or, like, Anderson 360. To me, those are journalists slash broadcasters. I mean, Jon Stewart, to me, is more like a
- (10) **profession.** the plus sizes and factory seconds. To wit, middle-aged, never-been-married carpet weavers slash bowling heroes; embittered, ready-to-retire thirty-year-old math teachers; local farm boys with their
- (11) **profession.** Web siteafter uncovering the fact that the editor's best pal, a supermarket mogul slash movie producer, had a penchant for Filipino midget hookers. The mogul, in
- (12) **profession.** Dr. Yoshida patted her hands together in applause. " In my role of spy slash fink, you can be sure I'll report this to the consortium. "
- (13) **profession.** the plus sizes and factory seconds. To wit, middle-aged, never-been-married carpet weavers slash bowling heroes; embittered, ready-to-retire thirty-year-old math teachers; local farm boys with their
- (14) **place.** see, kitchen and then bedrooms upstairs, right. BILLY-JOE-MARRERO-# This is the kitchen slash washroom. DIANE-SAWYER-1ABC# (Voiceover) At home, electricity in

only a few rooms. The same

- (15) **illness.** How – ” ” Mick’s been throwing up – some kind of stomach flu slash candy cane binge with the baby-sitter. I look out the bathroom window and his
- (16) **event.** thank your tits for this rare, behind the scenes look at your first crime slash moment of truth. # Judy leans in pops a quick kiss at the lens
- (17) **profession.** successfully drive a car without fatalities. So God gave me Hugo. A chauffeur slash bodyguard? and I count on him to get me everywhere on time. ”
- (18) **thing.** be really loaded. Because I know he’s not here in this luxury car slash coffin. Lance, he of the square-jawed, blond flat top, football player
- (19) **profession.** CD player. It’s a 1966 Mustang, Eddie. A classic. Robbers slash gangbusters would’ve taken it straight to a chop shop where they’d sand off
- (20) **event.** ,” I said. ” It will be a kind of housewarming slash Christmas slash welcoming Anna back type of thing, ” I said. # ” And Chanukah
- (21) **place.** This new pink purchase occurred at Biotop, the wonderful treehouse slash cafe slash boutique slash garden centre nestled into Tokyo’s Ebisu. In an incongruous mix that could onlyprofession
- (22) **place.** the venue of the debate, provide the sound system, and supply a moderator slash timekeeper - but hey, they challenged us to debate in the first place

- (23) **event.** them home that night. # I also brought cupcakes to work for his birthday slash gender reveal for our coworkers. (I'll share more about that later.
- (24) **profession.** More About the Author # Rachel Balducci is married to a dashing immigration attorney slash basketball coach slash amateur front-room wrestler. Together, they have five lively sons.
- (25) **place.** from the Greek crisis to EU interest rates, and so for every underground dungeon slash disco there are now two lawyers in a coffee shop talking about work. That
- (26) **profession.** " About # You might recognize him as the the town's popular DJ slash emcee from hitz.fm OR you might know him, and his friends, from their
- (27) **thing.** familiarity is thrown out the window in the course of watching this film slash documentary slash mockumentary. You will sit there and laugh, and tear up, but also
- (28) **person.** the dustbin and we did eventually. Still, one shameless autocrat imposed another dude slash puppet on us and we pretended like it was alright. He, the animal
- (29) **profession.** delivery man in tow called Motoman. # TYLER HAMILTON: Motoman was this gardener slash handyman for Lance Armstrong. T
- (30) **event.** people from achieving their goals. # I once was invited to a crappy game slash art show as someone to draw an audience – and a total of zero people
- (31) **profession.** child, daughter Kimberley has announced her own pregnancy to the press.

The actress slash socialite surprised the media b

- (32) **abstract.** , rather than his childish selfishness. # YM harbors some resentment (slash anger slash inferiority complex) toward his brother,
- (33) **bodypart.** avoided if at 2-1 Clattenburg sends Torres off for a kung-fu kick to the arm slash chest of Cleverley (Torres def had a glint in his eye when he did
- (34) **profession.** in America and abroad. But there is one man - one titan of business slash reality TV star slash political ” pundit ” - who is, on Twitter at
- (35) **thing.** indefatigable desire to become a decor dilettante. Sloane Home is my virtual inspiration board slash shopping list for my proper-meets-preppy aesthetic
- (36) **name.** n the novel itself. # The Cairo Jim books (starring a Captain Ersatz slash Affectionate Parody of Indiana Jones)
- (37) **profession.** one piece that is currently sold out on Avenue32, from the Russian street-style star slash rising designer Vika Gazinskaya’ s well-documented A/W 12-3 collection happens to be the
- (38) **abstract.** that motion is taking place then things feel pretty good. I have this belief slash feeling that everything has a purpose
- (39) **profession.** going to get an exclusive look inside the small box of which magician slash contortionist slash performance artist David Blaine is going to step tomorrow for 44 days.

Just water

A-slash-A

- (40) prospect, their token. This may well have been my first taste of interracial slash bestial humor, and the fact that it was delivered by a young black kid
- (41) thing that has fueled me more than anything in my career is being a Canadian slash British actor, which is you – you’re just – you look for interesting
- (42) and venue setting. # Postscript: To kick off the fun at this bonding slash photo shoot session, we let them try a few of our favorite cocktail drinks
- (43) really want to post his picture in this blog but that would be a stupid slash crazy slash idiotic slash silly thing to do.
- (44) when I read them I’m just kinda... well.. jealous slash, envious slash sentimental.
- (45) but with this one I made a whole story out of it – a Lovecraftian slash religious roots story.
- (46) the PAYG into the govt’s ever-yawning coffers. # The fact is, rich slash productive people subsidise poor people,

V-slash-V

- (47) one. This Coloud one, my dears, I’ve been using for working slash blogging (for the times

when I can't totally zone out from the calls

- (48) my blog in terms of emphasis is that it is when they are completely distracting slash ruining an event tantrum during wedding,
- (49) bear rose and stretched, vacating the day-bed on his own volition and began rubbing slash scratching himself on the willows.
- (50) and joining in a make-a-website-bandwagon. I promise myself to involve in making slash buying slash maintaining websites.

Brent Woo

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University of Washington, Seattle WA

✉

Language Engineer
Amazon, Cambridge MA

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URL: brentwoo.com

Education

- | | |
|------|--|
| 2019 | Ph.D. Linguistics. University of Washington, Seattle
Research topics: experimental syntax, coordination
Dissertation: “ $\hat{\sigma}^{\circ}$: the syntax and semantics of <i>slash</i> and <i>and/or</i> ” |
| 2013 | M.A. Linguistics. Eastern Michigan University
Thesis: “Syntactic parsing: Clitics in Slavic languages” |
| 2011 | B.A. Linguistics, B.A. Russian Studies. UCLA
<i>Cum laude</i> , Phi Beta Kappa
Thesis: “Reduplication in Vietnamese: A case for a laryngeal tier”

Summer language institutes at Prešov University in Slovakia (2015), Russian State University for the Humanities in Moscow (2009), and California State University Long Beach (2012). |

Employment History

- | | |
|-----------|--|
| 2018–now | Language Engineer. Amazon. Cambridge, MA. |
| 2013–2018 | Instructor and Teaching Assistant. University of Washington
Standalone instructor (6 courses) and teaching assistant (6 courses) |
| Sum 2017 | Research Assistant. Language Development and Processing Lab at UW.
Ran eye-tracking reading experiments, inferential statistics |
| Sum 2014 | Intern. Linguistic Society of America (LSA). Washington, DC.
Attended policy meetings and provided administrative and website support. |
| 2011–2013 | Research assistant. LINGUIST List. Ypsilanti, MI. |

Courses Taught

	Lead TA for UW Ling Dept (2017–2018)
Instructor	LING 461 Syntax I (<i>Introduction to X-bar Syntax</i>) – Summer 18, Summer 17 LING 462 Syntax II (<i>Advanced X-bar Syntax</i>) – Spring 2018, Summer 2016, Summer 2015 LING 400 Survey of Linguistic Methods and Theories – Autumn 2016
TA	LING 100 Fundamentals of Grammar – Winter 2018, Winter 2015, Autumn 2014 LING 200 Introduction to Linguistic Thought – Autumn 2017, Spring 2017 LING 233 Introduction to Language and Society – Spring 2015

Publications

2017	Brent Woo. Innovation in functional categories: <i>slash</i> , a new coordinator in English. <i>English Language and Linguistics</i> . Cambridge. https://doi.org/10.1017/S1360674317000557
2017	Brent Woo. The union of conjunction and disjunction: the case of <i>and/or</i> . In Patrick Farrell (ed) <i>Proceedings of the Linguistic Society of America</i> 2, 37:1–9. https://doi.org/10.3765/plsa.v2io.4093
2016	Brent Woo. <i>Effable Slash: an emerging intersective coordinator in English and its behavior slash properties</i> . In Mike Olsen (ed) <i>Proceedings of the Third Linguistics Conference at University of Georgia</i> 2: 1–14.
2011	Brent Woo. <i>Letters from Sergei Rachmaninoff: Substantiating a Context for His Depression in 1897-1900</i> . In Roman Koropeckyj (ed) <i>The UC Undergraduate Journal of Slavic and East/Central European Studies</i> 3. UCLA.
Manuscript	Breaking Idioms with Right Node Raising.

Conference Presentations

- 2018 Emily Atkinson, Ian Rigby, Naomi Shapiro, Brent Woo, and Akira Omaki. **Syntactic adaptation effects do not transfer across tasks.**
31st Annual CUNY Sentence Processing Conference. UC Davis, Mar 15–17
- 2018 Kirby Conrod and Brent Woo. **Hydras: Split heads and light heads.** [poster]
Linguistic Society of America Annual Meeting 92. Salt Lake City, Utah. Jan 4–7
- 2018 Brent Woo. **Linguistics beyond bars: Bringing the study of linguistics to prisoners.** [poster & organized session]
Linguistic Society of America Annual Meeting 92. SLC, UT. Jan 4–7
- 2017 Brent Woo. **We'll burn that bridge when we get to it: thematic coherence in identifying idiom blends.**
UC Davis Symposium on Language Research 2017. Davis, California. May 26
- 2017 Brent Woo. **Coordinating conjunctions in Uralic.** [poster]
Northwest Linguistics Conference 33. UBC, Canada. May 5–7
- 2017 Brent Woo. **The unification of conjunction and disjunction: the case of and/or.**
Linguistic Society of America Annual Meeting 91. Austin, Texas. Jan 5–8 [poster]
- 2016 Brent Woo. **Slash: A new coordinator in English and its behavior slash structure**
Linguistics Conference at UGA 3. UGA. Athens, Georgia. Oct 7–9
[Best Student Abstract award, Travel award]
- 2015 Brent Woo. **Breaking idioms with right node raising**
Brussels Conference on Generative Linguistics 8: The Grammar of Idioms. KU Leuven, Brussels, Belgium. June 4–5
- 2012 Brent Woo, Christine Evans, and Georgina Brown. **LL-MAP: Three interns' journey with language and technology** [poster]
Linguistic Society of America Annual Meeting 86. Portland, OR. Jan 5–8

Awards and Grants

2018	UW Graduate School Presidential Dissertation Fellowship in the Arts, Humanities, Social Sciences, and Social Professions – Linguistics Department nomination
2016	Linguistics Conference at University of Georgia, Best Student Abstract Award, Travel Grant.
2016	Slavic Excellence Prize, Graduate. UW Department of Slavic Languages.
2015	UW Foreign Language and Area Studies (FLAS) Graduate Year Fellowship: Finnish
2013–2014	UW GSFEI Top Scholar Award for Recruitment of Outstanding Graduate Students
2013	EMU Distinguished Graduate Student in Linguistics
2013	Phi Beta Kappa, UCLA.
2011	UCLA Foreign Language and Area Studies (FLAS) Year Fellowship: Croatian
2010	UCLA Russian Student of the Year
2009	Strategic Language Initiative Fellowship Full tuition support and stipend for summer language program in Moscow

Service

Conferences Organized

2016	April 22–24. Northwest Linguistics Conference (NWLC). Catering and food organizer.
2015	Arranged 15 invited speakers for UW Linguistics department colloquium series.
2014	Sept 19–21. Slavic Linguistics Society 9th Annual Conference, UW. Speaker accommodation and escort organizer.
2011	April 9. Southern California Undergraduate Linguistics Conference (SCULC) at UCLA, Los Angeles, CA. Head organizer.
2010	April. Southern California Undergraduate Linguistics Conference (SCULC) at UCLA, Los Angeles, CA. Founder and head organizer.

Public Scholarship and Outreach

2016	“Languages of the World”. University Beyond Bars, Public Lecture series to inmates at Monroe Correctional Complex: Medium Security Unit. Monroe, WA.
2016	“Languages of the World”. University Beyond Bars, Public Lecture series to inmates at Monroe Correctional Complex: Minimum Security Unit Monroe, WA.
2016	“Seeing the Hidden Structure of Language”. Paws on Science : Husky Wekeend. Pacific Science Center, Seattle, WA.
2014	Breaking Idioms with Right Node Raising. Syntax Roundtable. UW.
2014	If you teach a robot to talk.... Scholar’s Studio : Robot Research at the Commons. UW. Seattle, WA.
2013	“Say a Command”. TEDxEMU. Ypsilanti, MI.

Professional Memberships

2011–now	Linguistic Society of America Program Committee, elected student member Committee for Ethnic Diversity in Linguistics, member
2016–2018	UW Graduate and Professional Student Senate Elected Senator

Skills

Languages

Native	English
Conversational	Russian, American Sign Language
Research	Finnish, Rusyn, Croatian, Hungarian, Burmese, Japanese, Mandarin, Vietnamese <i>(I have done research projects on these languages.)</i>

Computer

Experiments	PsyToolkit, PsychoPy, Ibex Farm, SR Research Experiment Builder, Mechanical Turk
Programming	R, xfst, HTML+CSS/SASS, Jekyll, some experience with Python, Java
Tools	vim, \LaTeX , LilyPond, Praat, some experience with git, bash, zsh, emacs