Innovation in functional categories: *Slash*, a new coordinator in English

Brent Woo
University of Washington
bwoo@uw.edu

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Abstract This paper presents an analysis of the synchronic distribution and syntactic behavior of the English expression *slash*. First, I show that *slash* is a new type of coordinator: in nominal cases it productively coordinates two bare nominals resulting in an intersective reading. Second, I show that previous analyses of intersective coordination extends to the semantics of *slash*. Third, I discuss the syntactic constraints on *slash* and propose that *slash*, while generally supporting the idea of a generalized &P for all coordinators, requires further specification to account for its unique subcategorization requirement of only coordinating bare nouns (but not NP/DP), adjectives, and verb phrases (but not clauses). Fourth, I propose a new 'path of grammaticalization' to account for *slash*'s ultimate origin as written puncutation. In sum, by incorporating *slash* into the grammar of English, I argue that *slash* is a unique example of innovation in a 'very closed' functional category.

Keywords: coordination; syntax

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1 Introduction

In this paper I describe the word *slash* as a coordinator in English. Examples of *slash* in this use are shown in:

(1) Orange County cities are blocking projects because of **NIMBYism slash selfishness**.[1]

(2) she was also my **receptionist slash research assistant** who was darned near becoming a fantastic skiptracer.[2]

[1] Tags: 2015 NEWS OrangeCR; URL: http://corpus.byu.edu/coca/x4.asp?t=4137622&ID=731859341
[2] Tags: 2014 FIC Bk:SeventhGraveNo; URL: http://corpus.byu.edu/coca/x4.asp?t=4160521&ID=768181274

(3) He's a part-time **bartender slash ski instructor slash mountain guide**.[3]

The object of study in this paper is the actual written-out word *slash* – or in spoken language, the word pronounced *slash*. 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 identification is interesting for the following reasons. First, the syntactic literature on coordination does not discuss this coordinator at all. Second, it provides a new empirical domain to test theories about the syntactic structure and semantics of coordinators. Third, the category of coordinators is a functional category and expected to be closed.

In section 2, I explain its meaning. I show *slash* in use in a variety of contexts, and demonstrate that *slash* is a productive word, distinctive from compounding hyphen <-> as in *singer-songwriter*, the Latin *cum* as in *house-cum-office*, and others. In section 3 I address the question of what kind of word *slash* is. I discuss its categorial properties and present any array of tests that show that it is a coordinator. In section 4 I then examine its syntactic behavior in finer detail, compared to other coordinators, and discuss its implications for a general theory of the structure of coordination. In section 5, I propose the new path of grammaticalization that *slash* took. Section 6 is the conclusion.

Examples with endnote superscript are from the Corpus of Contemporary American English (COCA).[4]

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. Here is a selection of examples demonstrating its diverse and widespread useage. Examples (4-15) were instances I have personally heard or seen. Examples in (16-22 are examples from COCA, and are all recorded examples of speech.

[Observed examples]

(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.[5]

[3] Tags: 2013 FIC Bk:MountainBetween; URL: `http://corpus.byu.edu/coca/x4.asp?t=4160988&ID=767294356`
[4] mostly retrieved in September 2016.
[5] Bob's Burgers. 2x11. Halloween

(9) We got your notebook back from your best friend slash enemy.[6]

(10) Franz is a **free messaging app slash former Emperor of Austria** and combines chat 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.[7]

(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**?

[Examples from Spoken COCA]

(16) Drew and I have shared **clients slash patients** countless times and there is kind of a tug-of-war.[8]

(17) PALIN: I think it's funny that the **cocktail circuit slash circuit** gives me a hard time for eating elk and moose.[9]

(18) the thing that has fueled me more than anything in my career is being a **Canadian slash British** actor[10]

(19) 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.[11]

(20) 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 writing[12]

(21) This is the kitchen slash washroom.[13]

(22) 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?[14]

[6] Bob's Burgers 2x8 "Bad Tina".
[7] Opie and Anthony #2 Uncle Willy's Pickles.
[8] Tags: 2014 SPOK CNN; URL: http://corpus.byu.edu/coca/x4.asp?t=4124907&ID=695011767
[9] Tags: 2012 SPOK Fox_OReilly; URL: http://corpus.byu.edu/coca/x4.asp?t=4104129&ID=660307479
[10] Tags: 2006 SPOK CBS_Morning; URL: http://corpus.byu.edu/coca/x4.asp?t=56186&ID=546789256
[11] Tags: 2003 SPOK ABC_GMA; URL: http://corpus.byu.edu/coca/x4.asp?t=65391&ID=547613660
[12] Tags: 1997 SPOK NPR_Sunday; URL: http://corpus.byu.edu/coca/x4.asp?t=248688&ID=626851374
[13] Tags: 2007 SPOK $ABC_20/20$; URL: http://corpus.byu.edu/coca/x4.asp?t=235116&ID=603515948
[14] Tags: 2010 (100521) THE MAN WHO HAD ENOUGH; MURDER ROCKS SMALL CALIFORNIA TOWN SPOK: $ABC_20/20$; URL: corpus.byu.edu/coca/x4.asp?t=4072898&ID=688401248

The first component of my analysis of *slash* is determining the meaning. To do so, I compare *slash* with four other elements of grammar: the coordinator *and*, the Latin linker *cum*, its interaction with Proper Names, and the orthographic *slash*.

As a starting point, I compare the meaning of *slash* with the meaning of *and*. *and*, when coordinating two N, is sometimes ambiguous between an INTERSECTIVE reading and a COLLECTIVE reading. The intersective reading of *and*, seen in (23), refers to a single individual. The collective reading, seen in (24), refers to multiple individuals.

(23) Intersective *and* = denotes one individual
  a. **That liar and cheat** cannot be trusted. (Champollion 2016)
  b. **My friend and colleague** always sang too loudly. (Heycock & Zamparelli 2005)

(24) Collective *and* = denotes multiple individuals
  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)

slash can appear in only the intersective contexts, denoting one and the same individual.

(25) Intersective *slash* = denotes one individual
  a. **That liar slash cheat** cannot be trusted.
  b. **My friend slash colleague** always sang too loudly.

(26) 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.

Corpus examples support this interpretation.

(27) This is the **kitchen slash washroom**.

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

Renner (2008) calls this property 'homoreferentiality', where the 'denotata are fused' (in compounds). So the first component of the meaning of *slash* is that it generally has this intersective reading.

Professions are one of the more common uses of *slash*.

(29) In the winter months, I moonlight as a bartender slash ski instructor.

In this use, *slash* overlaps with the Latin *cum*, which means exactly the same thing: a single person fulfilling multiple roles. There are also examples of *cum* with adjectives (30c) and generic places (30d), as well as being fossilized in toponyms (30e).

(30) 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.[15]
c. The fervent medieaevalism 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 (30) (except the place names), *cum* can be replaced by *slash*, showing that their meaning and distribution overlaps quite a bit. Still, *cum* differs from *slash* in at least two 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, appears in other domains like news reporting and published media, indicating its widespread acceptance. (See section 6 for more discussion of this sociolinguistic aspect) Second, *cum* has the additional shade of meaning of 'turned-into' or 'became'. Compare the pair of sentences below.

(31) 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.

In (31a), *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. We see *cum* and *slash* have different meanings.[16]

We might consider an alternative. Instead of comparing *slash* to other words, perhaps it has a parallel in morphology. Perhaps it is a lexicalization of compounding morphology. The typical use of *slash* also overlaps with noun-noun compounds, called copulative compounds in Olsen (2007), or appositional compounds in Bauer (2008).

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

Olsen locates this combination operation of two nouns in the morphology, analyzes this formation process as a subtype of compounding, and provides a semantics for it. While in many cases this process is identical to *slash*-coordination (and *cum*, there

[15] 2001 Nov/Dec, David Sachs, "LET THEM EAT BITS", in American Spectator, volume 34, number 8, page 78:

[16] In addition, the OED lists *cum* as a preposition.

are two contexts where the distribution of *slash* is different: proper names, and VP-coordination.

Corpus instances already suggest there is a distinction between simple compounding or nominal juxtaposition and the use of *slash*, as shown in (33). Coordinated complexes don't seem to be headed in the way that the compound is.

(33) I'm not a student-athlete, I'm an **athlete slash student**.

This corpus example is not a contradiction, which means that nominal compounds are not equivalent to *slash*. The compound "student-athlete" refers to someone who is only partially a student, and only partially an athlete, or someone who is primarily an athlete and a student on the side. The *slash* complex *athlete slash student* on the other hand, means that the person is both of these roles in full capacity.

There's a consensus, in an informal survey of my colleagues, that a hyphenated compound (a) and the *slash* variant (b) are not equivalent. (In fact, (b) is judged to be false.)

(34) Lapsley is a singer-songwriter.

(35) Lapsley is a singer slash songwriter.

A singer-songwriter is specific profession where a performer writes the songs that he or she later sings. The *singer slash songwriter* instead strongly suggests that the person works full-time as a singer and full-time as a songwriter, and the two roles don't necessarily interact. *Slash* is set apart in meaning and distribution from compounding morphology.

Proper names interact with *slash* in an interesting way, unique from *and* or *or*. Both *and* and *or* easily link Proper Names.

(36) Brian and Katya arrived on time.

(37) Brian or Katya arrived on time.

Generally, proper names resist being linked with slash.

(38) * Brian slash Katya arrived on time.

(39) * Brian slash Katya met in the park.

In (38), the sentence is bad under a neutral interpretation where Brian and Katya are separate individuals. (39) forces a multiple-individual interpretation of the subject since the predicate *met* requires a semantically plural subject. This follows from the observation above that *slash* carries an intersective meaning of nominals. Since proper names denote individuals, *slash* with proper names would only be semantically coherent if the two individuals had the same reference. It turns out there is a scenario where this reading is possible: if Brian and Katya are separate personas of a performer, one

name is the stage name, and both names are recognized to refer to the same person, then *slash* is completely possible. All of the following are examples where one name is a stage persona and the other is a birth name.

(40) Brian slash Katya wore a scandalous red dress that he bought at a consignment store.

(41) I have a picture of Macklemore slash Ben's football jersey.

(42) This school was given $10,000 from Paul Hewson slash Bono.

Critically, *and* could not be substituted for *slash* in these examples (*Macklemore and Ben* ≠ *Macklemore slash Ben*). Still, the typical distinctness requirement on coordination holds. Instances where the performer's stage is non-distinct from their given name are degraded and uninformative.

(43) ? Adele slash Adele can only write songs about love.

We see that *Slash* interacts in this unique way with proper names.

Lexical *slash*, while related to the orthographical </>, has a separate distribution. Not all cases where one would use </> admit *slash* equivalently, limiting the discussion to examples where there are clearly parallels between the two (e.g., I do not consider the </> in *60 miles/hour*, or fractions). In the following sentences, (a) using the orthographical </> indicates a definite disjunction. In (b) sentences, the lexical *slash* suggests some sort of hybrid application or mode of travel. The result (b) is not equivalent to the original (a), and in fact (b) usually sounds anomalous.

(44) a. While taking the survey, you should use Chrome/Firefox/Safari.

b. ? While taking the survey, you should use Chrome slash Firefox slash Safari.

(45) a. Eileen will travel to the conference by air/rail.

b. ? Eileen will travel to the conference by air slash rail.

This is a contrast general to other words with non-lexical equivalents (i.e., punctuation). Similar contrasts between a 'phonetically realized' lexical coordinating conjunction and the non-lexical equivalent are given in te Velde (2006). The two sentences in (46) are not equivalent.

(46) a. The army invaded and the people looted the village

b. The army invaded; the people looted the village

As te Velde writes, only in (46a) is there a definite correlation between the two events.[17] The sentence in (46b) may simply be a pair of expository sentences that does not require

[17] What is the syntax of the sentences in (46)? Bjorkman (2013) provides a 'syntactic answer to this pragmatic puzzle'. (46a) is ambiguous between CP and TP coordination, and TP coordination corresponds to a causal correlation between the two events. CP coordination does not require causal correlation. Bjorkman's analysis may conclude that the semicolon <;> in (46b) can only 'coordinate' CPs.

a correlation between the two events. I draw a parallel here. Just as the lexicalized *and* and non-lexicalized <;> differ, the lexicalized *slash* and non-lexicalized </> differ.

These pairs of sentences in (44 and 45) illustrate that orthographic </> and pronounced *slash* no longer have the same distribution, they have diverged from each other, and *slash* is considered by speakers a separate word.

To conclude, *slash* has a distribution unique from other devices in the grammar. The intersective combination of proper names works only with *slash* under the intended interpretation of referring to a single individual, not Latin *cum* or morphological copular compounds.

(47) a. Brian slash Katya wore a scandalous red dress that he bought at a consignment store.
b. # Brian cum Katya wore a scandalous red dress that he bought at a consignment store.
c. # Brian-Katya wore a scandalous red dress that he bought at a consignment store.

(48) a. I have a picture of Macklemore slash Ben's football jersey.
b. # I have a picture of Macklemore cum Ben's football jersey.
c. # I have a picture of Macklemore-Ben's football jersey.

The last major difference is that *slash* allows verb phrase coordination, while *cum* and compounding does not.

(49) a. Kelli was conducting a meeting slash watching the Olympics.
b. * Kelli was conducting a meeting cum watching the Olympics.
c. * Kelli was conducting a meeting - watching the Olympics.

Slash is similar to in meaning, but syntactically distinct from these alternatives.

3 *slash* is a coordinator

I now turn to the question of what syntactic category *slash* is. I show that *slash* is a coordinator, to be added to the same category as *and*, *but*, and *or*. There is no precedent of standard diagnostics for determining that a word is a coordinator. I present some observations below that suggest that *slash* is a coordinator.

This merits discussion because the literature standardly assumes the class of coordinators is both very small and closed. For example, Johannessen (1998: 97) on the functional status: "Abney 1987 suggests that functional elements constitute closed lexical classes. This criterion applies unproblematically to conjunctions in English, e.g., there are only five coordinating conjunctions; *and, or, but, for,* and *so*, in Norwegian

the same: *og, eller, men for*, and *så*." If my arguments that *slash* should be considered a coordinator go through, the consequence of this is that any general theory of coordination should be able to account for its properties, just like Johannessen writes in the introduction to her book: "The theory of the book, of course, aims at being applicable to all kinds of coordination. ... The theory is meant to include all kinds of coordination, and most of what is said will be equally applicable to the other types, except when other stated." (Johannessen 1998: 6)

I start by giving a sample of the definitions for coordination given in the literature, given in two large works on coordination.

> "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)

> "A coordinate structure is made up of a connector and the two or more conjuncts it links. Any linguistic structure containing a coordinate structure as a proper or improper substructure will be called a coordinative construction." (Lang 1984: 20)

> "A coordination is a construction consisting of two or more members which are equivalent as to grammatical function, and bound together at the same level of structural hierarchy by means of a linking device." (Dik 1968: 25)

Slash exhibits all of these properties. It coordinates two parts, where the two parts have the same status; it does not create a subordination relationship. In all examples of *slash* we've seen, structurally, the members joined by *slash* are at the same level of hierarchy.

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 terminals (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 (50) I show examples of *and*: (50a) and (50b) are truth-conditionally equivalent sentences, even though the clausal associates of *and* have been reversed. In (51) I show that the same property holds for *slash*: the two sentences are equivalent even though the coordinands are switched.

(50) a. Tom likes to sing and Jane likes to dance.

b. Jane likes to dance and Tom likes to sing.

(51) a. John is a bartender slash ski instructor.

b. John is a ski instructor slash bartender.

No other category has this reversability criterion. (52) shows this for a preposition: (a) and (b) are not equivalent.

(52) 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.

(53) David Blaine is a **magician slash showman slash entertainer**.

(54) David Blaine is a **magician slash showman slash entertainer slash musician.**

Iteration of *slash* doesn't necessarily create subordinate relations, as shown in (55a); unlike prepositions, as in (55b).

(55) a. I like stories slash pictures slash movies.

b. I like stories about pictures about movies.

Only coordination allows the ambiguity of distributed modifiers. (56a) is ambiguous: John can 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 (56b).

(56) 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, and can stand at the beginning of a continuing utterance. *Slash* can, as well.

(57) 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).

(58) A: John is Mary's neighbor.

a. B: ...And best friend!

b. B: ...Or best friend!

c. B: ...Slash best friend!

The last syntactic diagnostic I use here to distinguish coordination from subordination is the classic Coordination Structure Constraint (Ross 1967). Subordinate constructions allow extraction of one or more daughters (59). But coordinate constructions don't allow extraction (60). *Slash* does not allow extraction (61).

(59) a. Who did you mistake [_] for [Eric Idle]?
b. Who did you mistake [Eric Idle] for [_]?

(60) 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 [_]?

(61) 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.)

In sum, *slash* shows all the syntactic characteristics of being a coordinator.

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 comment on it as such. This newsreporter consciously comments on *slash*, in the context of coordinators:

(62) 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.[18]

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 (63):

(63) "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.[19]

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

[18] Tags: 2013 (131022) Facelift Murder Trial Day Five SPOK: CNN; URL: http://corpus.byu.edu/coca/x4.asp?t=4123890&ID=697288406

[19] 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

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

A search for *cums* in COCA results in zero hits. And such a meta-linguistic comment on noun compounding like *singer-songwriter* is near 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. In (65a) and (65b) are noun substitution errors, within very small subcategories of nouns, and in (65c) is an example showing that functional categories–in this case a determiner–are susceptible as well. All these examples are from Fromkin (1984: 262).

(65) 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

Below in (66) and (67), 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.

(66) 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.[20]

(67) 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.[21]

[20] Tags: 2012 (121121) PBS NewsHour For November 21, 2012 SPOK: PBS; URL: http://corpus.byu.edu/coca/x4.asp?t=4123500&ID=705490958

[21] Tags: 2009 (090612) Comic Artie Lange On Being Too Fat To Fish SPOK: NPR_FreshAir; URL: http://corpus.byu.edu/coca/x4.asp?t=4031466&ID=634217269

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 that *slash* is within the coordinator category.

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 examples: "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)

4.1 *slash* subcategorization

What categories do we see flanking *slash*? I work from the bottom (N) up through the top of the clause structure (CP). *Slash* in many examples we've seen so far simply coordinates bare nouns (N).

(68) Just a sip of beer... that's what they serve these days at the **home slash beach slash pub**.[22]

(69) Michael Scott: There are four kinds of business: tourism, food service, railroads, and sales.
(pause)
Michael Scott: And **hospitals slash manufacturing**. And air travel.[23]

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

Slash does not coordinate full noun phrases with an article (DP), though. (See the Appendix for experimental results supporting this judgment.)

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

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

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

(73) * This slash that box should go in the closet.

Adjectives and adverbs readily coordinate with *slash*.

(74) I'm very very happy for you **slash** jealous.[24]

[22] Mike Birbiglia. *My Girlfriend's Boyfriend*. 1:08:42.
[23] *The Office* (US). Season 3, Episode 16
[24] This example also shows *slash*'s capability to extrapose, which coordinators in general have.

(75) Egli declined politely slash embarrassedly.

Slash coordinates bare verbs (V).

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

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

(77) A: What are you doing?
B: **Office hours slash watching Olympics**.

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

Slash seems fine with T.

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

Assuming subjects in Spec,TP, T' coordination seems to be the limit. Any larger, including the subject in a TP-coordination, seems unwieldy at best.

(80) John was cleaning the kitchen slash will be leaving soon.

(81) ? John was cleaning the kitchen slash Mary was vacuuming the carpet.

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

(82) ? I know what slash when John sang.

(83) * I know what John sang slash when he did so.
(cf. the grammatical *What and when did John sing?* (Citko & Gračanin-Yuksek 2016: 394))

These results are summarized in the table in (84).

(84)

Category	CP	C	TP	T	vP	VP	V	DP	D	NP	N	A	Adv
Slash coordinate	*	?	?					*	*				

To sum up these findings, *slash* is somewhat sensitive to the category it subcategorizes for, but in a idiosyncratic way. It is not the case that simply small elements like terminals are allowed and larger units are not. Nor is it the case that *slash* coordinates only nominals. The grammatical examples of multi-word VP coordination dispel this (*I am working at home slash conducting meetings all day*). Rather, it looks like there is some a rough dividing line between lexical categories, which are allowed (N, NP, V, VP) and functional categories, which are not (D, DP, C, CP).

There are a few cases that will be discussed below that are interesting because they seem to violate the Law of Coordination of Likes. Consider the following.

(85) I forgot that you were [$_{PP}$ in a relationship] slash [not].

(86) When you're not [$_{AP}$ married] slash [$_{PP}$ in a relationship]

For example it is not even clear what to label the second conjunct in (85); possibly ellipsis has taken place.

In sum, at least with regards to the categories that *slash* coordinates, it is more selective than *and* or *or*, which are unconstrained: they coordinate nearly every type of word and phrase (see Zhang (2010: 45) for a long list).

4.2 Behavior like *and*

In this and the following subsections, I compare *slash* directly to the syntactic behavior of *and* and *or*, and note properties that seem to be shared between the coordinators, and which are not shared.

Interaction with negation. Under negation, *slash* is most naturally interpreted just like *and*.

(87) Alex is not a lawyer or judge. (... He is an accountant.)
$\neg L \wedge \neg J$

(88) a. Alex is not a lawyer and judge. (... He is ONLY a lawyer.)
$\neg(L \wedge J)$

b. Alex is not a lawyer slash judge. (... He is ONLY a (mere) lawyer.)
$\neg(L \wedge J)$

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

(89) When you're not **married slash in a relationship**, it's incumbent on you to be proud of yourself for things.
$\neg M \wedge \neg R$

4.3 Behavior like *or*

Exceptions to the 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, or*, category identity is too restrictive, as Sag et al. (1985) shows with these and other examples.

(90) Pat is either stupid or a liar.
ADJ DP

(91) Pat is either a lunatic or under the influence.
DP PP

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

Slash is unlike *and* and *or* in that it does not allow these exact kinds of exceptions to the LCL. Coordinands must be the same category, as the (b) examples show.

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

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

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

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

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

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

There is at least one instance where where *slash* coordinates unlike categories, an ADJ and a PP.

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

So while *slash* allows some violations of the LCL, they are not the same kind of violations that we see with *and* and *or*.

No exceptions to the Coordinate Structure Constraints.. The Coordinate Structure Constraint (CSC) bans extraction of, and out of, conjuncts in a coordinate structure (Ross 1967). Lakoff (1986) noted that the CSC can be circumvented in certain cases below, using the coordinator *and*, in the (a) examples below. In these examples, replacement of *and* by *slash* yields ungrammaticality.

(97) a. Here's the whiskey that John [went to the store] **and** [bought _].

b. * Here's the whiskey that John [went to the store] **slash** [bought _].

(98) a. How many lakes can you [pollute _] **and** [not arouse public furor]?

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

It was shown above that *slash* is independently capable of coordinating VPs, so *slash* remains subject to the CSC, unlike *and*.

No iterative intensification. In ordinary coordination, both *and* and *or* require the conjuncts to be distinct in meaning.

(99) * This year the winter has been surprisingly mild and this year the winter has been surprisingly mild.

(100) * 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) *slash* does not allow this; neither does *or*.

(101) a. Garraty walked faster and faster.
b. * Garraty walked faster or faster.
c. * Garraty walked faster slash faster.

No comitative or collective meaning.

A key property of *slash* is that there is no 'summative' property of *slash* that will license a collective, reciprocal, or similar predicates. *Or* behaves the same way; *And* does not.

(102) No comitative
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.

(103) No collective (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.

(104) No collective (bare nouns)
a. A doctor and lawyer met.
b. * A doctor or lawyer met.
c. * A doctor slash lawyer met.

(105) No swarm predicates
a. * John and Mary swarmed the garden.
b. * John slash Mary swarmed the garden.
but
c. * The bees slash locusts swarmed the garden.

No internal readings of relational modifiers.. The internal reading of relational modifiers like *same, different*, which is the reading where the two agents are singing the same song *as each other*, is unavailable. The external reading is unaffected.

(106) a. John and Mary sang the same song.
b. # John or Mary sang the same song.
c. # John slash Mary sang the same song.

4.4 Unique behavior

In this section I highlight some syntactic behaviors that are unique to *slash* – that is, neither *and* nor or exhibit any of these properties.

ADJECTIVES. When *slash*-ing adjectives, *slash* seems closer to *or* in allowing something bordering on disjunctive uncertainty. Consider these examples (adapted from Troseth 2009: 41), highlighted by sluicing:

(107) a. * Mercury is a shiny and dangerous substance...
b. Mercury is a shiny or dangerous substance...
c. ? Mercury is a shiny slash dangerous substance...
...but I don't know which.

PROPER NAMES. While names referring to distinct individuals readily combine with other coordinators, *slash* is not so permissive. This was discussed in Section 2 at length.

(108) a. Kirk and Spock entered the bridge.
b. Kirk or Spock entered the bridge.
c. ? Kirk slash Spock entered the bridge.

OBLIGATORY MONOSYNDETON / STRICT BINARITY. *Slash* does allow more than two coordinands, but unlike *and, or*, it requires additional instances of *slash*. It is *obligatorily monosyndetic*: for N number of conjuncts, there are $N - 1$ number of *slash*. In (109) there are 3 conjuncts, and 2 *slashes*.

(109) 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.[25]

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

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

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

(112) 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 last coordinator is dropped, as in (113 and 114). If we attempt this with *slash* (115) the sentence becomes degraded, and prosody is stilted.

[25] Tags: 2003 SPOK ABC_GMA; URL: `http://corpus.byu.edu/coca/x4.asp?t=65391&ID=547613660`

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

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

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

Consider *but*: similar to *slash* in the just-mentioned property (116). However, *but* in general does not allow many terms (117) – and cf. (109) :

(116) * You are a magician, contortionist, but performance artist.

(117) * You are a magician, but contortionist, but performance artist.

So *slash* is alone in this pattern of behavior.

BARE NOUN COORDINATION. Lastly, we arrive at the intersective property of *slash*, introduced earlier in Section 2, which plays out as follows. Gazdar (1980) proposed a semantics for bare noun coordination, which is straightforward generalized intersection and union for conjunction (*and*) and disjunction (*or*). Bergmann (1982) noted the intersection analysis of conjunction doesn't account for the collective reading (multiple individuals) that obtains with bare noun coordination (118).

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

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

Or has only a disjunctive reading.

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

But *slash* acts like neither of these. With *slash*, we see a forced (potentially gruesome) intersective reading, likely unavailable in (118).

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

The contrast is even clearer with this pair of examples. While (122) is ambiguous between meeting with two individuals or one, (123) is NOT ambiguous.

(122) Meeting with your colleague **and** therapist can be therapeutic. [ambiguous]

(123) Meeting with your colleague **slash** therapist can be therapeutic. [unambiguous]

slash has only the *intersective* coordination meaning, as opposed to the polysemous *and*. I leave it to later work to refine a formal semantic analysis of *slash*. Such work should build on the foundational work on the semantics of bare noun coordination. Heycock & Zamparelli (2005) noticed this ambiguity of conjunction of (bare) nominals as "joint" (=intersective) and "split" (=collective) and provides parallel examples from Germanic languages. Bruyn & de Swart (2012) propose a semantics for similar *split coordination structures*. Champollion (2016) revisits the issue and gives a new semantic analysis of intersective bare nouns.

4.5 Summary of syntactic behavior

Summary of the observations above. + 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 swarm predicates (w/sg. conjuncts)	+	+	+
No internal readings of relational modifiers		+	+
Adjectives plus sluicing		+	+
Proper names			+
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*. What seems to unify these observations is a constraint on reference: *slash* prefers strongly not to coordinate multiple referents. This follows from the fact that *slash* carries and forces an intersective reading.

As far as the subcategorization properties go, this constraint may explain the contrast between coordinating a bare noun (139c) and full DP (139a) with *slash*.

(124) a. A doctor slash lawyer entered the room.
b. * A doctor slash a lawyer entered the room.

Because full DPs are referential, they may refer to separate or identical individuals. If they refer to separate individuals, then *slash*'s semantic requirements will conflict. Coordinated bare nouns are not separately individuated.

5 *slash* comes from punctuation

I've discussed at length the properties of *slash* as a coordinator, the reason being that slash turns out to be an example of innovation in a "very-closed functional category", with the additional novelty of having an **orthographical source**. This is unexpected for few reasons. One, coordination has long-been considered a "very" closed functional category by the literature on coordination.

> & [the category of coordinators] may constitute the most exclusive of all categories; this thesis will work under the claim that only the so-called

> coordinating conjunctions (eg 'and' and 'or' in English, and marginally 'but') may head an &P. (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) Most make a note of this scope limitation ("this paper limits its discussion to *and* and *or*"). It seems the overwhelming consensus is that the category resists new members. So the appearance of *slash* is surprising.

Second, if *slash* is accepted as a new word in the standard variety of English, regardless of its category, it is surprising that *slash* should have an orthographical source. Spoken pronunciations–where prescriptive arguments for a word's 'correct' pronunciation are substantiated solely on the basis of the word's spelling ("/fɛbuæɹi/ is an illegitimate pronunciation of the word *February* because it lacks the first ɹ")–are one example where the written language can potentially influence the spoken language, but that enterprise is marginal, social, and ultimately prescriptive. *Slash*, on the other hand, is, I argue, something entirely different, where the orthography alone has produced a word that is now in common use in all domains. Extending further, this challenges the general idea that written language is *merely* transcription of spoken language.

The terminology surrounding the process of forming new words is ambiguous and there doesn't seem to be a consensus view on distinguishing the processes of lexicalization and grammaticalization.(Dong 2012: 235) Here I will use the term grammaticalization.

In this section, I present my explanation for how *slash* became this unprecedented new member of the functional category of coordination, and include a new path of grammaticalization that *slash* likely took to enter the spoken language. I compare *slash* to others that have also traveled my proposed path of grammaticalization, like *period* and *quote*, and against those that have not, like *dash*. I also discuss historical and typological support for *slash* as a coordinator.

5.1 Whence comes *slash*?

Innovation in functional categories is, by definition, rare. Functional categories are considered as such because they are closed and usually small. Coordinators are no exception. Pieter Muysken, in *Functional Categories* (2008), discusses coordination, but almost always only to mention how closed the category is. Muysken recognizes the possibility of addition, but does not adduce any examples: "There are often only a limited number of coordinating conjunctions and adpositions in a language, but *equally often elements could still be added to these categories* [...] many more peripheral conjunctions and prepositions can be easily replaced." (p32, emphasis mine)

While it's probably easier to identify examples of novel adpositions in English, these ones formed by compounding, it is admittedly harder to come up with new additions to the set of coordinating conjunctions. *Slash* should be considered a candidate.

Functional categories can originate from seemingly any other category, including lexical categories. Conjunctions can come from verbs, nouns, case markers, adpositions, deictics, or even mutated versions of conjunctions themselves. This is supported by looking at the origin of *and* and *or* in English.

The origin of *and* is uncertain. The earliest attestation of *and* is given in the Oxford English Dictionary from *Cædmon's Hymn*, written from 658-680,in Northumbrian Early Old English:

(125) Nu scylun hergan hafaenricaes uard, metudæs maecti **end** his modgidanc.

The majority view holds that *and*, in its simplest conjunctive sense, 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.). Different senses developed later. (OED Third Edition, June 2008)

The origin of *or* is better-understood. *Or* is a reduced form of *other*, which was itself being used as a conjunction. The earliest attestation of *or* is reported from the *Ormulum*, in Middle English:

(126) Her iss litell **oþerr** nohht. I þiss land.

We see that *and* comes from either an Indo-European preposition or adverb, and *or* comes from a conjunction.

There is no entry in the OED for *slash* as a conjunction.

However, observing that these coordinators can be traced back to hundreds or thousands of years ago in English would seem to militate against my proposal that *slash*, as a newcomer, can hold the same status as these deeply-rooted coordinators. A second problem for my claim is the type of source. It's certain that *slash*, as a fully-pronounced or written-out coordinator, comes from the orthographic </>. Muysken's list of categories above does not include the cross-modal category of "punctuation" as a possible origin for functional categories.

A third problem: In the massive survey of grammaticalization in Heine & Kuteva 2002 they identify over 400 such paths of grammaticalization. A sample of the paths to coordinating conjunctions:

(127) ALSO > NP-AND (Cayuga *hni'* 'also' > noun-phrase coordination conjunction) [p57]

(128) COMITATIVE > NP-AND (Ewe *kplé* 'with' > 'and' NP-coordinating conjunction [p94]

There are several others, but all look at grammaticalization from within a single modality. Major issues in the topics of grammaticalization and lexicalization include sources and origins and these pathways.

I propose an analysis of grammaticalization that addresses these issues. *Slash* has followed a new type of path of grammaticalization:

(129) Path of Grammaticalization from 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*.

(130) **period / full stop**[26]

a. "Esports is the future of competition. **Period**," UCI's Acting Director of Esports Mark Deppe says.[27]

b. No. He sent her out to go get a sandwich, **period**.[28]

c. There is an official order gone out from the pope that senior Vatican people are not to gossip with the media. **Full stop**.[29]

[26] An intuition might be that these in spoken language are limited to American / Commonwealth Englishes, respectively, but there is one example shows that both are available to the same speaker and both can be juxtaposed, non-redundantly, for emphasis:

(1) EVANS: Now what you could say is you could compel them if you want to go to a doctor, use a hospital service, you have to have insurance to do that. That – if the law was structured that way, they might have more luck with it, but to say to someone you have to buy this, just **period, full stop**, as far as what can I understand is the essence and the core of the problem here. (Tags: 2012 (120325) New York magazines John Heilemann, CNNs Gloria Borger, New York Times David Leonhardt, CNBCs Kelly Evans discuss current events and politics SPOK: NBC_Matthews; URL: http://corpus.byu.edu/coca/x4.asp?t=4103732&ID=660489195)

[27] Retrieved from `https://www.engadget.com/2016/09/14/esports-arena-college-uc-irvine-leage-of-legends/?sr_s` 9/15/16

[28] Tags: 2015 (150106) Did Princeton Grad Murder Millionaire Dad?; Cops Try To Identify Newborn Left To Die SPOK: CNN; URL: `corpus.byu.edu/coca/x4.asp?t=4125698&ID=697031023`

[29] Tags: 2005 (20050306) Critique of Worldwide Media Coverage SPOK: CNN_Intl, URL: `http://corpus.byu.edu/coca/x4.asp?t=177710&ID=562387417`

(131) **quote** [30]

a. they have a new, **quote**, “strategy” to work with Congress on some things of mutual interest.[31]

b. It reads, **quote**, “It appears that I am now being unjustly victimized again.”[32]

Period is particularly 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 are what is entering the language. There is limited cross-linguistic support for this idea as well. For example, Russian точка /totʃka/ ‘period’ has a similar discursive use and function as the English *period*.

Other examples, perhaps marginal, include *dot dot dot* and *question mark*. See this example of the latter:

(132) 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.

The proposed Path of Grammaticalization does not admit all types of punctuation. There are some punctuation marks that have never reached step 2, and resist quite

[30] *Quote* itself has a basket of interesting properties. To mention a few: it can interrupt very small units, like breaking up an ADJ from its N as demonstrated in (131a); its meaning of derision in (131a); its meaning of verbatim but not necessarily spoken in (131b). *Quote* might be the only kind of correlative spoken punctuation, with the possible correlate *unquote* used to help delimit the scope. Standard, intuitive usage simply flanks the material.

(1) One can not, as war correspondent Michael Herr testifies in dispatches, simply, **quote**, “ run the film backwards out of consciousness, ” **unquote**.
(Tags: 2015 (150120) In The Evil Hours, A Journalist Shares His Struggle With PTSD SPOK: NPR, URL:corpus.byu.edu/coca/x4.asp?t=4125904&ID=702812798)

(2) bad topiary is, **quote**, the senseless torture of shrubs, **unquote**;
(Tags: 2014 (140125) Not My Job: How Much Does A Former Hedge Fund Manager Know About Hedges? SPOK: NPR; URL: corpus.byu.edu/coca/x4.asp?t=4125017&ID=703922437)

There also exists a kind of Polish notation variant where the entire “quote-unquote” is uttered before the quotation, which is also not uncommon.

(3) The last words in one of his emails was, **quote, unquote**, “ You are not getting off that easy. ”

(4) “That, I think, is much better than being **quote/unquote** ‘religious,’ ” the crow said.
(Sedaris, David. 2010 *Squirrel seeks chipmunk*. p.78)

There is no such variant for other correlatives constructions: **either or John Mary, *both and Tim Minh*. Note also *quote* can stand on its own, while *unquote* cannot.

[31] Tags: 2015 (150104) Interview With Delaware Senator Chris Coons; SPOK: CBS, URL: corpus.byu.edu/coca/x4.asp?t=4125488&ID=692823178

[32] Tags: 2015 Royal Sex Scandal: Prince Andrew SPOK: CNN, URL:corpus.byu.edu/coca/x4.asp?t=4125774&ID=695736684

strongly being pronounced. All of the following in (133) are seriously anomalous, compared to those in (134).

(133) *Ineffable Step 2 punctuation marks*. These are all examples of written dialogue. Imagine of a speaker was asked to read out loud these lines of dialogue. It is inconceivable that they would come up with this pronunciation:

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**
? You'll become an indispensable expert **bang**

c. ? They've never given remission here **semicolon** you know that.

d. ? So the murderers **apostrophe** hearts bleed for Russian now, do they?

e. ??? Wasn **apostrophe** t it you who butchered Russia in 1917?

(134) *Attested Step 2 punctuation marks*. In contrast to above, the ones we have been discussing, are easily pronounced.

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 punctuations in (133) probably corresponds to the ones that have phonetic correlates already in speech. Commas <,> indicate a kind of falling "list" intonation already, so there's no need to pronounce it any further. *Slash*, on the other hand, never conventionally obtained a prosodic correlate. On reading the following sentence out loud, speakers must opt to pronounce "slash", or they risk it being misinterpreted as a compound (*manager-father*), which is not equivalent.

(135) Written: My manager/father ran into the room.
(not equivalent to (a), equivalent to (b))

a. Pronounced: My manager-father ran into the room

b. Pronounced: My manager slash father ran into the room

Because slash </> never had a prosodic correlate, like *quote* (but unlike *period*), it was able to reach step 2 of grammaticalization. I should clarify that I'm not basing my argument on this hypothetical scenario where speakers are asked to read written sentences out loud. I only invent these sentences to illustrate the concept. I am also not primarily making any claims about the cognitive processes in speech production. Speakers, at some point, started naming certain punctuation marks (and not others), for example, *period,* in this emphatic way, in spoken language.

(136) “In fact, I will never go to the movies with you... period.”

This was then widely recognized and adopted by speakers as a conventional adverb connoting finality, and has since made its way into the accepted standard.

Underlying this whole discussion of punctuation, Nunberg warns that there is no simple analysis of relating phonetics to punctuation marks in the first place (in fact, doing so is labeled the problematic *transcriptionist view*): “These observations suggest there is grounds for doubting whether punctuation can be said to function as a device for ‘indicating’ or ‘signifying’ intonational features. (Nunberg 1990: 14)

But the bifurcation I am drawing is between those punctuation marks that have merely a *potential* phonetic correlates and those that *never* do. Nunberg also makes this distinction, between those clausal punctuation marks that have a suprasegmental realization and those that don’t.

(137) Phonetic realization: question marks, exclamation marks, parentheses, correlative m-dashes.

(138) No phonetic realization: hyphens, apostrophes.

One potential complication (or alternative analysis) to this account, is that of the words *period*, *full stop*, *quote*, and *slash* - all of these are 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*.[33] It is possible that this can be stated as a gateway condition for these punctuation names to enter the language: the name must already be a standard word for speakers to bring the punctuation into productive use in the language. This would explain why the typographical terms for </>, *virgule* or *solidus*[34], haven’t as easily entered the language.

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

5.2 Typological and historical perspectives

There is some precedent for the categorical status and subcategorization properties of *slash* are unsurprising from typological and historical perspectives. Although the traditional English coordinators *and* and *or* are not category-sensitive like *slash* is, it is not unusual for world languages to have such a coordinator.

[33] In fact, by one source, the action 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/)

[34] There are also some fine-grained typographical distinctions between all of these, i.e., they may not all be equivalent anyways.

> "... many languages have category-sensitive coordinating constructions ... about half of the world's languages show different conjunctive constructions for nominal and verbal/clausal conjunction." (Haspelmath 2004: 10)

Many languages have different coordinators depending on the syntactic or semantic properties of the conjuncts. No language, however, makes a lexical distinction between collective and intersective coordination. There are languages that make differences along other semantic lines. The closest distinction seems to be in Chechen: Chechen has different conjunctive constructions for when the conjuncts form a *conceptual unit* and when they form *separate entities* (e.g. *shish-ii stak-ii* 'a bottle and a class'; *waerzha mazh 'a, q'eegash shi bwaerg 'a* 'a black beard and two shining eyes') (Haspelmath 2004: 33)

Mithun (1988), writing about the historical changes and development of coordination in general, writes:

> "Coordinating conjunctions can thus originate as noun phrase links from comitative constructions, then spread to predicates and clauses." (but there are exceptions) (Mithun 1988: 350)

This quote reflects *slash*'s proposed origin story. As a punctuation mark it was probably (perhaps prescriptively) limited to "slashing" very local things – *actor/director*, *king/queen*, colleague/therapist. As it entered the spoken language, people started using it to intersectively coordinate larger units, like events – *doing office hours slash watching Olympics*.

Finally, should we still regard coordination as a closed category, if *slash* has entered this putatively closed category? For that I turn to Muysken 2008. Muysken notes that the most persistent functional categories over time are pronouns and conjunctions. That is, historically these categories change membership only very slowly, and members don't shift around that much. This varies across languages. For Southeast Asian languages, pronouns are considered 'open class', reflecting the sheer number of personal pronouns compared to Indo-European languages. Thai has 27 first person pronouns, 22 second person pronouns, and 8 third person pronouns: 57 total! (Cooke 1968) Compare this to English's 'paltry' 5 (or 6-7, with the dialectal second person plurals *ya'll*). On the other hand, there is no known language that considers coordinators even remotely an open class. Mandarin Chinese has 9 different coordinators (including conjunctive and disjunctive), (Zhang 2010) but this is not so significantly higher than the 3-5 shown in English. Although I recognize that the concept of open and closed class applies mostly to the permeability of new forms over time, the number of forms in a category is a function of a class's degree of openness. Even considering *slash* a

member of the coordination category, the overall number remains very low, and it is safe to consider coordination closed, although not absolutely so.

6 Conclusions

Slash is recognized as a new coordinator in English, as demonstrated by its systematic and productive use in both spoken and written language and informal and formal contexts. I've shown that *slash* is interpreted as intersective coordination, whether in the nominal or verbal domain. I showed that syntactically, *slash* behaves as a coordinator, and integrates effortlessly in theories of the structure of general coordination at both the word and phrasal level. Lastly, I discussed the origins of *slash* as a punctuation mark, and its novel path of entering the grammar.

To further develop a profile of the use of *slash*, we should investigate its social indices. Does the use of *slash* index any social variables? While collecting informal judgments, I found that some speakers rejected *slash* wholesale, while others recognized its use by others but claimed they never produce it. As mentioned in Section 2 about its meaning, even among early adopters of *slash*, I perceive a register difference: while *slash* is generally accepted in informal and even broadcast media, it is not quite accepted in the most formal contexts. Coordination in general has not received much attention in the sociolinguistics literature, besides one study on formality (Shapiro 1997: 156).

There are a number of experimental directions to take with this new coordinator. Coordination shows idiosyncrasies in both language processing and development. For example, there is an ERP effect unique to conjunctions. In a paced reading task, closed-class words show a negative peak earlier than open-class words do. Within closed-class words, this negative peak latency for conjunctions occurs extremely early, at 71ms, compared to other closed classes: articles (212ms) and prepositions (115ms) (Hagoort, Brown & Osterhout 1999: 283). To discover that *slash* would also show the extremely early negative peak latency unique to conjunctions would lend further evidence to its being categorized as one.

Slash raises some questions about acquisition. In English, coordination is first observed around 2;0-2;3, with more complex concepts like 'sequence' being expressed later, and the age ranges vary across languages (Clancy 1976: 72). As *slash* further proliferates, it would be interesting to study if it is acquired and used by children along with other coordinators. Experimental evidence from processing and acquisition may further shed light on the lexical status of *slash*.

In sum, there is a lot of work slash research to be done.

Appendix: Experiment showing *slash* doesn't coordinate DP

Because the judgments are uncertain for me between coordinating a full noun phrase (DP) and a bare noun (N) with *slash*, I collected judgments in an experiment meant to expose the distinctions speakers make about the distribution of *slash*.

Participants. Fifty people participated in this experiment. They were recruited using Mechanical Turk. All participants were provided a statement of consent that they agreed to. From the main analysis, 7 participants were excluded. 6 participants were excluded because they indicated that their first language was not English. 1 participant did not provide judgments for all test items. This left 43 participants for analysis.

Materials and method. Experimental items were the four following items using *slash*:

(139) a. A doctor slash lawyer entered the room.
b. Jeff is a doctor slash lawyer.
c. A doctor slash a lawyer entered the room.
d. Jeff is a doctor slash a lawyer.

The four conditions are as follows: (139a) and (139b) are *slash*-coordinated full noun phrases (NP). (139c) and (139d) are *slash*-coordinated nouns (N). I provided examples in subject (139a, 139c) and object (139b, 139d) position. The items were constructed to avoid any number agreement on the verb.

There were no filler items. All participants saw the same 4 items in the same order. Participants saw the items on their computer screen and were asked to rate each sentence on a scale from 1 ("not grammatical at all") to 7 ("perfectly grammatical"). The scale was presented vertically with only the two extremes labeled. Participants indicated their response by clicking a radio button corresponding to numbers 1 through 7. All items were presented on a single page, and participants were allowed to go back and change responses (although the possibility to do so was not mentioned in the instructions).

Results. Of the 50 responses, 43 were considered for analysis. Participants took on average 81.7 seconds to complete the survey (min = 25s, max = 306s). The results for the 4 conditions are presented in Figure 1.

An ANOVA based on the subject grammaticality ratings was conducted based on a 2 (grammatical position: subject, object) x 2 (coordinand level: NP, N) design. There is a significant effect for category ($F = 190.112, MSE = 3.439, p < 0.05$) but no main effect for grammatical position ($F = 4.165, MSE = 0.075, p = 0.29$). A post-hoc Tukey's HSD test estimates the difference in grammatical rating between the coordinand categories NP and N is 1.8545 ($lwr = 0.925, upr = 2.784$). The ANOVA tells us two things. First, by looking at the mean ratings in Figure 2, that there is a difference in ratings for category NP and N is evident. But we do not know if this is by chance. The ANOVA tells us that this variation is predictable when we take category into account. Because of the low p-value, it is unlikely that this difference is due to chance.

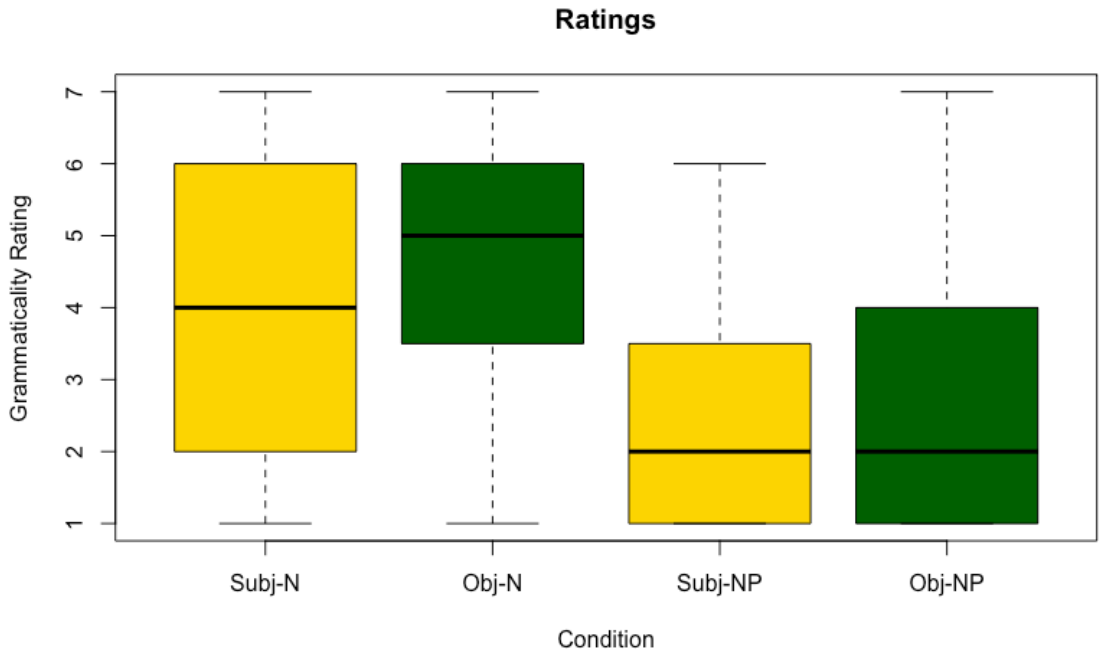

Figure 1 Grammaticality of experimental conditions

(140) Test items

a. A doctor slash lawyer entered the room.
b. Jeff is a doctor slash lawyer.
c. A doctor slash a lawyer entered the room.
d. Jeff is a doctor slash a lawyer.

	N & N	NP & NP
Subject	a	c
Object	b	d

	N & N	NP & NP
Subject	4.06	2.34
Object	4.469	2.48

Figure 2 Mean ratings, averaged across subjects and items

Discussion. The observation that *slash* more readily coordinates N, over NP, is confirmed. There is a significant difference in the grammaticality between the two. Further statistics models should be constructed to investigate if there is an interaction between category and position. Additionally, on the whole *slash* does not rate that highly in this experiment. Immediately relevant is the fact I did not include any controls with conventional coordinators like *and*.

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References

Abeillé, Anne. 2006. In defense of lexical Coordination. *Empirical Issues in Syntax and Semantics* 6. 7–36.

Bauer, Laurie. 2008. Dvandvas. *Word structure* 1(1). 1–20.

Bergmann, Merrie. 1982. Cross-categorial semantics for conjoined common nouns. *Linguistics and Philosophy* 5. 399–401.

Bjorkman, Bronwyn. 2013. A syntactic answer to a pragmatic puzzle: the case of asymmetric and. In. Christiana Sevdali Rafaella Folli & Robert Trusswell. (eds.). (Syntax and Its Limits). Oxford University. http://dx.doi.org/10.1093/acprof:oso/9780199683239.001.0001.

Bruyn, Bert Le & Henriette de Swart. 2012. Bare coordination: the semantic shift. *Natural Language and linguistic theory*. http://dx.doi.org/10.1107/s11049-014-9237-9.

Champollion, Lucas. 2016. Ten men and women got married today. *Journal of Semantics* 33(3). 561–622. http://dx.doi.org/10.1093/jos/ffv008.

Chaves, Rui P. 2007. *Coordinate structures: constraint-based syntax-semantics processing*. Universidade de Lisboa PhD thesis.

Citko, Barbara & Martina Gračanin-Yuksek. 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.

Cooke, Joseph R. 1968. *Pronominal reference in thai, burmese, and vietnamese*. UC Berkeley PhD thesis.

Crystal, David. 2015. *Making a Point: the Persnickety Story of English Punctuation*. St. Martins Press.

Dell, Gary S. 1995. Speaking and misspeaking. In. Vol. An invitation to cognitive science. Chap. 7, 183–208.

Dik, S. C. 1968. *Coordination: its implications for the theory of general linguistics*. North-Holland Publishing, Amsterdam.

Dong, Xiufang. 2012. Lexicalization in the history of the Chinese language. In. Janet Zhiqun Xing (ed.). (Trends in Linguistics. Studies and Monographs [TiLSM]: Newest Trends in the Study of Grammaticalization and Lexicalization in Chinese). De Gruyter Muton. 235–274.

Fay, David & Anne Cutler. 1977. Malapropisms and the Structure of the Mental Lexicon. *Linguistic Inquiry* 8(3). 505–520.

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.

Gleitman, Lila R. 1965. Coordinating conjunctions in English. *Language* 41(2). 260–293. http://dx.doi.org/10.2307/411878.

Hagoort, Peter, Colin M Brown & Lee Osterhout. 1999. The neurocognition of syntactic processing. In *The neurocognition of language*, 273–317. Oxford University Press.

Haspelmath, Martin. 2004. Coordinating constructions: an overview. In. Martin Haspelmath (ed.). (Coordinating constructions). John Benjamins. Chap. 1, 3–39.

Heine, Bernd & Tania Kuteva. 2002. *World Lexicon of Grammaticalization*. Cambridge.

Heycock, Caroline & Roberto Zamparelli. 2005. Friends and colleagues: plurality, coordination, and the structure of DP. *Natural Language Semantics* 13(3). 201–270. http://dx.doi.org/doi:10.1007/s11050-004-2442-z.

Horn, Laurence R. 1972. *On the semantic properties of logical operators in English*. UCLA PhD thesis.

Johannessen, Janne Bondi. 1998. *Coordination* (Oxford Studies in Comparative Syntax). Oxford.

Katzir, Roni & Raj Singh. 2013. Constraints on the lexicalization of logical operators. *Linguistics and Philosophy* 36. 1–29. http://dx.doi.org/10.1007/s10988-013-9130-8.

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.

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.

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. http://dx.doi.org/10.1075/tsl.18.13mit.

Muysken, Pieter. 2008. *Functional Categories*. Vol. 117 (Cambridge Studies in Linguistics). Cambridge.

Nunberg, Geoffrey. 1990. *The Linguistics of Punctuation* (CSLI Lecture Notes 18). CSLI.

Olsen, Susan. 2007. Coordination in morphology and syntax: the case of copulative compounds. *GAGL: Groninger Arbeiten zur germanistischen Linguistik* 44(7). 87–101.

Renner, Vincent. 2008. On the Semantics of English Coordinate Compounds. *English Studies* 89(5). 606–613.

Ross, John Robert. 1967. *Constraints on variables in syntax*. MIT PhD thesis.

Sag, Ivan A., Gerald Gazdar, Thomas Wasow & Steven Weisler. 1985. Coordination and how to distinguish categories. *Natural Language and linguistic theory* 3. 117–171. http://dx.doi.org/0167-806X/85.10.

Schachter, P. 1977. Constraints on Coordination. *Language* 53. 86–103.

Shapiro, Mary Beth. 1997. *Style Shifting: the perception and production of formality in English*. UT Austin PhD thesis.

te Velde, John R. 2006. *Deriving Coordinate Symmetries : a phase-based approach integrating Select, Merge, Copy and Match*. John Benjamins Publishing Company.

Troseth, Erika. 2009. Degree inversion and negative intensifier inversion in the English DP. *The linguistics review* 26(1). 37–65.

Williams, Edwin. 1978. Across-the-board rule application. *Linguistic Inquiry* 9(1). 31–43. http://dx.doi.org/http://www.jstor.org/stable/4178033.

Zhang, Niina Ning. 2010. *Coordination in syntax*. Cambridge.

Zoerner, Cyril Edward. 1995. *Coordination: the syntax of &p*. UC Irvine PhD thesis.