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Questions in the Syntax of English Similative Constructions*

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ABSTRACT This paper aims to investigate the place of similatives in a broadly Minimalist approach to English syntax. Canonical similatives are those comparatives expressing identity of manner - e.g. *Mary sings like Jane (does)* - but they also have a range of other functions. Similar multifunctionality is common in adverbial clauses, forming part of the motivation for 'configurational' approaches deriving different functional and syntactic behaviour from the same elements merged in different positions. So far, similatives have not featured in this sort of discussion, and their syntax has been given much less attention than related constructions including scalar comparatives and other (e.g. temporal) adverbial clauses. I examine the syntactic properties of different types of similative clause and evaluate some analyses with respect to how they account for a) these properties, b) links between different similative types, and c) links to related constructions.

1 Introduction

This dissertation addresses the syntax of similatives, a somewhat understudied member of the comparative family, which express comparison in terms of similarity or resemblance, broadly put. (1) represents the canonical case:

(1) Mary sings like Jane (sings/does).

Haspelmath & Buchholz (1998) introduce some useful terminology which applies to similatives as follows, compared to a traditional 'comparative':

	Comparee		Parameter Marker	Parameter	Standard Marker	Standard	
Simalative	Mary	sings			like	Jane	(sings)
Comparative	Mary	sings	more	beautifully	than	Jane	(sings)

Table 1 Haspelmath & Buchholz's (1998) framework for comparatives.

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Similatives, unlike comparatives, don't usually have an overt Parameter, but it is understood, here as manner of singing. (European) similatives are generally marked by one 'preposition-like' Similative Marker (Haspelmath & Buchholz 1998: 313). In (1), this is *like*. It introduces the Standard, which takes the form of a clause (like *Jane sings/does*), or, more commonly, a noun phrase (*like Jane*). This paper focuses on the clausal type, since these raise interesting questions that may not apply to phrasal similatives. Note that the English Similative Marker can also be *as*, but I focus on *like*-similatives since *as* in manner similatives (*Mary danced as Jane did*) is archaic for many speakers.

In typologically-oriented work, similatives are often described as comparing manners. For instance, Haspelmath & Buchholz (1998: 313) write that 'similatives express identity of manner, whereas equatives [equality comparatives] express identity of degree or extent', based on examples like (2) and (3):

- (2) a. Mary sings like Jane sings.
 - b. Mary sings in X-manner, Jane sings in Y-manner; X is similar to Y
- (3) a. Mary sings as well as Jane sings.
 - b. Mary sings X-well, Jane sings Y-well; X=Y

But as Haspelmath & Buchholz acknowledge, many similative-type constructions don't compare manners (see section 2). For Huddleston (2002: 1099) they therefore express 'non-scalar equality' more generally.

Similative clauses are interesting because they seem linked to/in-between many other constructions, but have received little attention in the syntactic literature (with some exceptions, e.g. Bacskai-Atkari 2020 and Desmets 2008 for Hungarian and French respectively). They resemble other comparatives and other adverbial clauses, but have been studied much less than scalar comparatives or, say, temporal clauses. This paper aims to help fill this gap by giving an overview of English similative clauses and how we could treat their syntax from a broadly Minimalist perspective.

Section 2 lays the ground for later discussion, formulating a functional typology of English similative clauses. Section 3 examines their external syntax, arguing that some functional distinctions in section 2 map to syntactic distinctions in Merge position. Section 4 turns to internal syntax, investigating what is shared and what is different between the two main types, and how they link to other constructions. Section 5 outlines how the previous discussion applies to a further similative type. Section 6 raises further questions and directions, and section 7 concludes.

2 Typology of English Similative Like-clauses

As mentioned above, the focus will be on constructions where what follows *like* is clausal. I use '*like*-clause' to refer to this '*like*+clause' complex. Here I put together a (partial) typology of English *like*-clauses based largely on Desmets's (2008) work on French similatives with *comme* and Huddleston's (2002) chapter on English comparative constructions. This will be compared to some typologies of adverbs, and form the basis of later discussion.

2.1 Similative like-clauses

2.1.1 Complement like-clauses

Certain verbs, such as *behave* or *treat*, require a manner complement, which can be satisfied by a manner adverb or a *like*-clause:

- (4) She behaved nicely.
- (5) She behaved like a toddler would (behave).

These *like*-clauses are 'structurally incomplete', to use Huddleston's (2002:1158) terminology, in that the verb lacks a complement; a corresponding main clause would specify manner: *A toddler would behave HOW*.

In English, *like*-clauses can follow predicative BE, like certain other modifiers:

- (6) She is mean/in the kitchen.
- (7) She is like her mother was.

What is missing in the *like*-clause is the complement of BE.

2.1.2 Modifying adjunct like-clauses

The canonical similative clause functions as a manner adverb, modifying the matrix verb:

- (8) You dance expertly.
- (9) You dance like your friend does/dances.

While the complement of *like* appears 'complete' (*your friend dances*), we can speak of a missing manner adjunct since this is understood as the parameter of comparison (*your friend dances HOW*).

Like-clauses can also modify a noun phrase (10) or an adjective (11), where the missing parameter is an understood quality or type (here of cake or strangeness):

- (10) It was a cake like my mother used to make.
- (11) She was strange like home-schooled kids are strange (not like serial killers are strange).

2.1.3 Disjunct like-clauses

Other *like*-clauses don't modify anything in the main clause, but function as sentence-level adjuncts expressing resemblance. This is the case for 'disjunct' *like*-clauses, called 'ajouts d'analogie' in Desmets (2008: 35) and included under 'disjunct similatives' in Haspelmath & Buchholz (1998: 319). These are usually, but not always, set off prosodically or with a comma (12a-b), and can be initial (12b), unlike modifying types (12c-d):

- (12) a. Mary is a painter, like her mother was.
 - b. Like her friend did, Mary sang terribly.
 - c. *Like a toddler would, she behaved.
 - d. #Like her friend did, she sang. (manner reading unavailable)

(12a) is an example of what Huddleston (2002: 1155) calls 'likeness of predication'; it expresses that Mary and her mother have being a painter in common, not that they are painters in the same manner. Similarly, (12b) does not compare the manner of singing (already specified as 'terribly'), rather the friends have singing terribly in common. (12a) and (12b) have some additive meaning; we might paraphrase them as follows:

- (13) Mary is a painter, and her mother was too.
- (14) Mary sang terribly, and Mary's friend did too.

Other disjunct clauses don't have this additive meaning, but still express some unspecified commonality. Take (15):

(15) Like a snake can sense its prey, I knew instinctively that she had arrived.

The comparison seems better represented as (16) than (17):

- (16) X = a snake can sense its prey, Y = I knew instinctively that she had arrived; X is similar to Y
- (17) A snake can sense its prey in manner-X, I knew instinctively that she had arrived in manner-Y; X is similar to Y

So disjunct *like*-clauses compare propositions rather than manners/qualities. *Like*-clauses can be ambiguous between modifying and disjunct readings, but not when they are initial:

- (18) She sings like her friend does.
 - a. Modifying 'she sings in the same manner as her friend'
 - b. Disjunct 'she sings, and her friend does too'

- (19) Like her friend does, she sings.
 - a. Only disjunct 'she sings, and her friend does too'

There is a potential modifying/disjunct parallel in the nominal domain, with *like*-clauses either modifying nominals or expressing broader commonality/resemblance. Consider the following:

- (20) It was a dress like my mother used to wear.
- (21) She was carrying a power drill, like builders use.

In (20) *like*-clause specifies a kind of dress, whereas in (21) it just provides relevant context for 'power drill'. I do not investigate this parallel here, though it should be borne in mind with any nominal examples.

The inclusion of disjunct *like*-clauses in the study of similatives is supported by the tight link in the expression of modifying and disjunct types cross-linguistically. Haspelmath & Buchholz (1998: 319) note that European languages 'consistently code disjunct similatives in the same way as manner similatives', and the situation seems similar outside of Europe (Treis & Vanhove 2017). This multifunctionality is common with adverbial clauses generally; Schmidtke-Bode & Diessel (in press: 4) write that 'in many languages, the clausal constructions used as adverbial modifiers can also be employed as adverbial supplements', where supplements provide additional comment/information. This is part of the motivation for attempting unified analyses with the same elements in different types.

Table 2 demonstrates the types of *like*-clause presented above.

	Type of <i>like-</i> clause	Example
i)	Manner complement	She behaved like a toddler would.
ii)	Predicate complement	She is like her mother was (at her age).
iii)	Manner modifier	She sings like Jane does.
iv)	NP modifier	It was a cake like my mother used to make.
v)	ADJ modifier	She was only strange like other children are too.
vi)	Disjunct predicative ('likeness of predication')	Mary is a painter, like her mother was. Mary is married like Jane is.
vii)	Disjunct likeness	Mary sings beautifully, like Jane does.
viii)	Accord	The movie flopped horrifically, like I predicted.

 Table 2
 Functional typology of like-clauses.

I give some attested examples from the Corpus of Contemporary American English [COCA] (Davies 2008-) in Table 3.

i) Manner comple- ment	He's the first mayor of Washington, D.C. who's <u>acted</u> like mayors do in most other cities.	1990; NPR Spoken
	Our children will <u>behave</u> like we do , especially as they grow into teenagers and adults.	2012; Web
ii) Predicative	I'm sure Coach Curry <u>is</u> like I am , and would prefer to play on a dry field.	1991; News
	The bottom line is that most fishermen in Atlantic Canada want the fishery to <u>be</u> like it was 3 years ago (when it was prosperous)	1990; Academic
iii) Manner adjunct	I don't $\underline{\text{live}}$ like some Americans do , attached to their bar	2010; Magazine
	When you keep getting better and the young guys keep <u>playing</u> like these guys do , obviously, the future looks a little bit brighter.	2003; News
iv) NP adjunct	What we've got here is a house like I would envision the house where Jesus was born.	2007; NPR Spoken
	I prefer plastic wire or <u>cable ties</u> like those electricians use instead of regular luggage locks (note that this could be disjunct)	2002; Magazine
v) ADJ adjunct	Darien was good, but he wasn't really good like I was .	2018; Fiction
	Is she <u>married</u> like I'm married , or is she married-married?	1998; TV
vi) Disjunct predicative	He said, Well, you know, I <u>was a reference</u> like I was before for so and so.	2010; NPR Spoken
	I think that what we got from the bands in Omaha is not direct musical inspiration but just more we also wanted to be unique like they were. (this cannot, by definition, be 'unique in the same way')	2012; Blog
vii) Disjunct likeness	Also, you <u>look out the window all the time</u> , like I do , only you're looking at the world, you know. Trying to figure it out.	2007; Movie
	I think Time-Warner will <u>make a business decision</u> to pull this record from distribution, just like they made the business decision to put it into distribution, because they thought they'd make money	1992; NPR Spoken
	Following the debate Twitter also became a confessional for people who, like I did , turned to the self-help industry	2019; Magazine

Table 3 Examples from the Corpus of Contemporary American English [COCA] (Davies 2008-); my underscoring and bolding.

2.2 Other like-constructions

There are two types of *like*-complements that I introduce here without offering detailed discussion. Firstly, what Brook (2014) calls 'ostensibility verbs', including *seem, look, sound, feel* etc., can take a *like*+DP complement:

(22) It sounds like a bad idea (*is/*does/*sounds).

However, these are bad when they include a verb, so I omit them from the typology of *like-clauses*. In the second type, sometimes called 'simulatives', *like* means 'as if'. These clauses can fulfil any of the above functions, here manner modifier and disjunct likeness:

- (23) She dances like she has three left feet.
- (24) Like someone had flipped a switch, her demeanour changed instantly.

Crosslinguistically, similatives and simulatives are often expressed the same way (Kortmann 2012, Treis & Vanhove 2017), but they are beyond the scope of this paper.

2.3 Typologies of adverbs

Looking at typologies of adverbs like those in Ramat & Ricca (1998) and Cinque (1999), similative types i-v in Table 2 modify an event or predicate, so fit in Ramat & Ricca's 'representational level' or with Cinque's 'circumstantials'. Like circumstantials, these modifying *like*-clauses must follow the verb and any complements (recall 12d, 13). The disjunct types (vi-vii) provide background/context/contrast, so might fit in Ramat & Ricca's 'intrapersonal level' or in the top four 'Mood/Modal' positions of Cinque's adverb hierarchy. Indeed, they pattern distributionally with 'higher' adverbs:

- (25) a. (Like her mother was,) Mary is a painter (like her mother was).
 - b. (Frankly/unfortunately/*carefully) Mary is a painter (frankly/unfortunately/*carefully).
 - c. (Like her friend did,) Mary sang terribly (like her friend did).
 - d. (Frankly/unfortunately/*piercingly) Mary sang terribly (frankly/unfortunately/*piercingly).

Also like higher adverbs, disjunct clauses can be parenthetical:

- (26) Mary, like her mother was before her/unfortunately, is a painter.
- (27) Mary, like her friend did last night/unfortunately, sang terribly.

2.4 Summary

In sum, we have the basic functional typology in Table 2, with the main contrast between modifying types (i-v) and disjunct types (vi-vii). The former pattern like circumstantial adverbs and modify an event/predicate, while the latter pattern like sentence-level adverbs and play a more discourse-related role. The next question is how this relates to their syntax.

3 External Syntax of Similative *Like*-clauses

In this section, I consider where the types of *like*-clause are merged in the syntactic derivation. The most straightforward case is the complement type. As for the adjunct types, I present evidence for low vs. high attachment of modifying and disjunct types respectively, consistent with usual assumptions about the structural position of event/predicate vs. discourse-related adverbs, and work on (particularly temporal) adverbial clauses.

3.1 Complements

I assume that complement *like*-clauses (manner or predicative) are s-selected by the verb (e.g. *behave or be*), and so will be sister to the verb.

3.2 Adjuncts: evidence

To determine the position of the adjunct types, I consider three diagnostics: ordering, scope, and ellipsis/substitution.

3.2.1 Ordering

The modifying/disjunct distinction is relevant to the linear order of elements. As mentioned in section 2.1.3, modifying *like*-clauses must follow the verb and any complements, whereas the unambiguous position for disjunct *like*-clauses is before the main clause. This indicates that the base-position of disjunct *like*-clauses is higher than that of modifying ones, in line with findings that discourse-related adverbs are structurally higher than event/predicate-modifying ones (e.g. Cinque 1999). Examples with final disjunct clauses would presumably be derived in the same way as (28):

(28) She is strange, unfortunately/frankly.

3.2.2 Scope

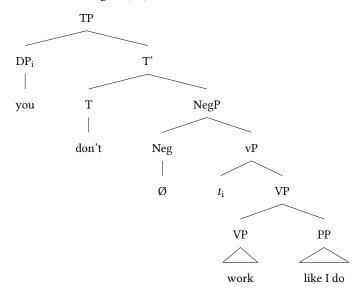
How similatives interact with scope-taking elements tells us about their structural position. Negative scope ambiguities again reflect a modifying/disjunct distinction. Consider the following:

- (29) Mary isn't strange like her mother was.
- (30) You don't work like I do.

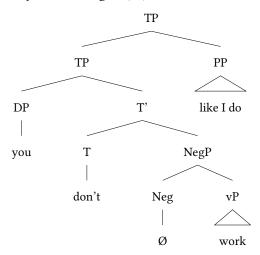
Illustrating with (30), with the modifying reading this means 'you work, but not in the same manner as I do', whereas with the disjunct reading it means 'you don't work (at all), I do'. From a functional perspective, this indicates that in disjunct cases we have two separate propositions which can be independently negated (that you work and that I work), whereas in modifying cases we have only one proposition (that you work like I do). So modifying *like*-clauses are more functionally integrated into the main clause than disjunct ones.

This clause-integration difference should be represented syntactically too. In the modifying case of (30), since we are negating the act of working *in a certain manner*, the negative must have scope over the *like*-clause. We could therefore place the *like*-clause vP-internally, attached to the VP it modifies (31a) This fits with Cinque's (1999:29) VP-internal position of circumstantial adverbs. With a disjunct reading of (30), however, we are not negating anything in the *like*-clause. The negative apparently does not have scope over the disjunct *like*-clause, which, assuming sentential negation to sit above vP in English (Zeijlstra 2004), indicates attachment in the high TP or above (31b). I put negative auxiliaries in T for simplicity.

(31) a. Manner reading of (30)

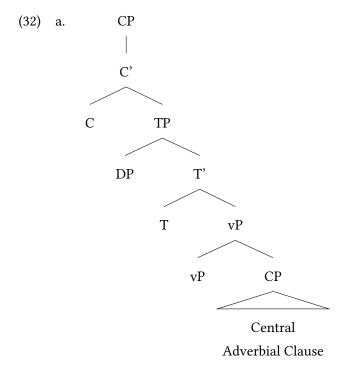


b. Disjunct reading of (30)

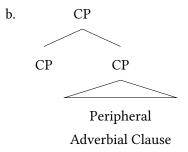


3.2.3 Ellipsis/Substitution

Differing behaviour with respect to operations targeting vP/TP also demonstrates the relevance of the modifying/disjunct distinction to syntax. Haegeman (2012) uses VP-ellipsis/substitution to support a distinction between 'central' and 'peripheral' adverbial clauses, where central adverbial clauses (CACs) are merged within/below the T-domain while peripheral adverbial clauses (PACs) are merged higher, roughly as follows (adapted from Haegeman 2012: 170):



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If disjunct *like*-clauses were merged above TP, the modifying/disjunct distinction would align with Haegeman's central/peripheral distinction. To test this, we can apply the VP-ellipsis/substitution tests to sentences with *like*-clauses containing anaphors. Following Haegeman, if CACs merge below TP and PACs above, vP/TP-targeting operations should only affect CACs. Adapting this to the present context, if the *like*-clause is attached to the matrix VP (central), ellipsis/substitution of an identical VP in the lower clause should leave the lower clause ('sloppy') subject as a valid antecedent for an anaphor in the elided/substituted clause:

	Sentence	Mary sang like her sister did, and so did Jane.
(33)	Representation of lower clause	and [$_{CP}[_{TP}$ so did Jane [$_{VP}$ sing [$_{PP}$ like her sister did]]]]
	Possible readings	Strict Jane sang like Mary's sister OR sloppy Jane sang like Jane's sister

If the *like*-clause merges above the matrix TP (peripheral), however, the *like*-clause containing an anaphor should not be understood as part of the elided/substituted VP. The lower clause subject should not be the antecedent of any anaphor.

	Sentence	Mary sang beautifully, like her sister did, and so did Jane.
(34)	Representation of lower clause	and [$_{CP}[_{TP}$ so did Jane [$_{VP}$ sing beautifully]]]
	Possible readings	Only strict Jane sang beautifully (as did Mary and Mary's sister)

Though the reading here is not exactly 'strict identity' since there should be no anaphor at all, I use the term to illustrate different potential readings. What is important is that the sentences with disjunct *like*-clauses, if these merge above TP, should say nothing about the argument that would be created by 'sloppy' reference to the lower clause subject (about Jane's sister in 34).

The results of a preliminary survey I ran via Qualtrics seem to broadly verify this difference in readings. I presented 299 informants with 14 prompts of the sort in (33) and (34) and asked them to choose readings for the elided/substituted clause (see

Appendix for details). Tables 4 and 5 show examples of modifying-type questions and disjunct-type questions respectively.

Prompt	Question
Mary sings like her sister does, and so does Jane.	Who does Jane sing like?
Options	
Mary's sister	(strict)
Jane's sister	(sloppy)
Either of the above	(sloppy included)
None of the above [text box for writing answer/interpretation]	

Table 4 Modifying-type survey question.

Prompt	Question
Mary is a student, like most of her friends are, but Jane isn't.	Please select everyone who is a student.
Options	
Mary	
Most of Mary's friends	(strict)
Jane	
Most of Jane's friends	(sloppy)

 Table 5
 Disjunct-type survey question.

I accepted comments at the end of the survey. There are a few qualifications to bear in mind before the results, however. Firstly, I had no 'either' option in the disjunct types, forcing a choice. This was due to two possible senses of 'either', where this would fail to distinguish, for example, the following readings of the example in Table 5 (Mary is a student, like most of her friends are, but Jane isn't):

- a. BOTH readings are grammatical/available for the sentence; it could mean Jane isn't a student like Jane's friends are OR Jane isn't a student like Mary's friends are.
- b. This ONLY means Jane isn't a student; whether Jane's friends are students is unknowable from the sentence, so might be true or not.

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Only a. should contribute to the count of sloppy readings. I also did not specify whether participants should select *preferred*, *available*, or *possible* meanings, not wishing to cause confusion or too much metalinguistic reflection, and the small number of questions didn't leave much room for controlling the many variables. Within each type, I had one ellipsis and one substitution prompt, and I tried to make them semantically biased in different ways, though this was not rigorous. This all means the results are at best suggestive.

Given this, Table 6 shows examples of prompts of each type and the percentage of respondents whose answers included a sloppy reading. With disjunct prompts, most respondents chose strict readings, whereas with modifying prompts, sloppy readings were available for many people. Though not everyone had sloppy readings of modifying prompts, the percentages are much lower for disjunct prompts.

	Similative type	Example prompt	% respondents who had sloppy reading
i)	Manner complement	Mary behaved like her sister did, but Jane didn't.	51.28%
	complement	didir t.	120/234
ii)	Predicative	Mary is like her mother was, and so is	70.56%
	Tredicative	Jane.	163/231
iii)	Manner adjunct	Highlander II begins like its predecessor did, but Sharknado II doesn't.	87.61%
			198/226
iv)	NP	Mary wore a dress like her mother used	64.07%
	adjunct	to wear, and so did Jane.	148/231
v)	ADJ	Mary was pretty like her mother was, but	58.65%
	adjunct	Jane wasn't. (note that this is potentially ambiguous)	139/237
vi)	Disjunct	Mary is a student, like most of her friends	2.20%
	predicative	are, but Jane isn't.	5/227
vii	Disjunct	Mary sings beautifully, like her sister	6.90%
	analogy	does, and so does Jane.	16/232

Table 6 Examples from a preliminary study on strict/sloppy anaphora with similative clauses.

The results were, of course, very influenced by the verb's semantics and perceived relatedness between participants (with a few comments left to this effect). For instance, another intended NP-adjunct prompt biased respondents towards the strict reading:

(35) Mary preferred those cigarettes like her friend smoked, but Jane didn't.

Only 9.96% (23/231) of respondents had a sloppy reading here. This might reflect the oddity of the assumption required for the sloppy reading, that Jane has a friend who smokes a certain kind of cigarette. A sloppy reading of the NP-adjunct example in Table 6 (*Mary wore a dress like her mother used to wear, and so did Jane*) seems more natural since a) it is safe to assume Jane has a mother and b) the relation *X:X's mother* suggests relatedness and invites comparison. Moreover, with a nominal modifying/disjunct distinction in mind, people might have interpreted the *like-*clause in (35) not as restricting the reference/type of cigarettes, but as context, aided by the demonstrative; Mary preferred those cigarettes, (which her friend smoked), but Jane didn't.

The semantic influence is also clear in disjunct types. For instance, 27.31% (62/227) of respondents said Sharknado I flopped horrifically in response to the following (compare vi in Table 6):

(36) Highlander II flopped horrifically, like its predecessor did, but Sharknado II didn't.

So the factors at play are clearly not just syntactic, and semantic context can somewhat overcome any syntactic effect.

But for present purposes note the contrast between (42) and a similar modifying prompt, *Highlander II begins like its predecessor did, but Sharknado II doesn't* (iii in Table 6). Even with the same event participants, we see a striking difference in the percentage of sloppy readings: 87.61% for the modifying prompt vs. 27.31% for the disjunct prompt. For another approximate 'minimal pair', compare modifying *Mary sings like her sister does, and so does Jane* (44.30% sloppy) vs. disjunct *Mary sings beautifully, like her sister does, and so does Jane* (6.9% sloppy). To use a very crude statistic, within modifying types, the average sloppy readings/total responses was 50.76% (58.06% when we exclude the NP and Adjective-modifier types, which could potentially be read as disjunct), whereas this average was 16.04% for disjunct types. These differences are statistically significant at the p<0.05 level (see Appendix).

These results support a syntactic distinction between modifying and disjunct similative clauses, possibly captured by a central/peripheral distinction in their external syntax. This predicts that modifying/central types can have strict or sloppy readings, whereas disjunct/peripheral types should only have strict readings. That the above results were not clear-cut is expected considering the range of other factors contributing to the strict/sloppy decision. In a larger-scale survey, one could control more for semantic relationship between event participants, verbal semantics, discourse context, stress and intonation, punctuation, and position of the *like*-clause, and with some careful design, disambiguate between preferred/available/possible readings.

3.3 Adjuncts: analyses

The evidence from section 3.2 suggests that the functional modifying/disjunct distinction maps to a syntactic central/peripheral distinction, so I adopt the terms CSC (central similative clause) and PSC (peripheral similative clause) for modifying and

disjunct *like*-clauses respectively, parallel to Haegeman's (2012) CACs and PACs. This syntactic distinction does not necessarily mean, however, that PSCs (types vivii) are merged in the C-domain. We would get the same low/high distinction with respect to ordering, negative scope, and ellipsis/substitution if they were merged high in the extended TP, or if they were not integrated into the clause at all. I briefly examine these potential implementations of the central/peripheral split, based on Badan & Haegeman's (2022) work on central/peripheral *while*-clauses.

3.3.1 Non-integration analysis

We could propose an 'orphan' approach to PSCs where they combine with the main clause at the discourse level. But there appear to be scope effects unexplained on this view. Consider the following, adapted from Badan & Haegeman's (2022:717) while-clause example:

(37) The ethicist declared [that [like it was not immoral to take pride in one's work], it was not immoral to take pride in one's appearance]

Here the propositional content and the viewpoint of the *like*-clause are attributed to the main clause subject, the ethicist. The speaker may not agree. We can also get past tense in the *like*-clause due to embedding under a past tense verb, though the ethicist presumably said 'it is not immoral to...'. These effects are unexpected if the clauses are not combined syntactically.

3.3.2 CP-adjunction analysis

A potential problem in adjoining PSCs to CP is that when they are embedded in complement clauses, e.g. (37), they follow *that*. If the clause were adjoined to CP, we might expect it to precede complementizer *that*. On the other hand, in a split-CP framework a peripheral *like*-clause could be merged in TopicP (at least where it is initial), so still in the C domain but lower than *that* which heads ForceP.

3.3.3 High/extended TP-adjunction analysis

Badan & Haegeman (2022) endorse this approach for peripheral *while*-clauses, arguing that we should take seriously the parallels with epistemic adverbs. These parallels seem to hold with PSCs too. Firstly, their linear positioning is similar (section 2.3). Secondly, section 3.2.2 showed that sentential negation does not have scope over PSCs, unlike CSCs, and this distinction holds for epistemic adverbs (*probably*) vs. temporal adverbs (*recently*):

- (38) John (probably) did not arrive in Belgium (,probably).
 - a. It is probable that John did not arrive in Belgium
 - b. *It is not the case that John probably arrived in Belgium

- (39) John did not arrive in Belgium recently.
 - a. It is not the case that John arrived in Belgium recently

Thirdly, the contrast in section 3.2.3, where CSCs are affected by VP-ellipsis/substitution while PSCs are not, is paralleled in the interaction between ellipsis and temporal adverbs (affected) vs. epistemic adverbs (unaffected) (examples adapted from Badan & Haegeman 2022):

- (40) John recently arrived in Belgium, and his wife did too (*two years ago).
- (41) John had probably gone home, and his wife (definitely) had too.

Badan & Haegeman's (2022) argument is that an analysis where PACs merge above TP but below CP, like epistemic adverbs, captures their common behaviour. I see no reason why this could not extend to PSCs, given the evidence from ordering, scope, and ellipsis/substitution.

3.4 Peripheral similative clauses in a theory of domains

We saw that disjunct *like*-clauses have a more discourse-oriented function than modifying ones, so the fact that they show evidence of higher syntactic positioning adds weight to generalisations about the overall organisation of the clause, where more discourse-related elements are positioned higher. This function-position mapping is formalised in Cartographic approaches, and for instance in Wiltschko's (2021) theory of domains. In turn, these formalisations might be useful guides for determining where elements are attached. For example, Wiltschko formulates a 'Universal Spine' with different functional layers. From this perspective, the question is 'Where do disjunct/peripheral similatives associate with the Universal Spine?'. Wiltschko writes that 'the place of association can be gleaned from a combination of its linear order, its scope properties, and the function it fulfils in the configuration of propositional meaning' (2021:78).

We saw that the ordering and scope properties of PSCs suggest a position in the extended TP or CP, their similarity to epistemic adverbs perhaps favouring the former. As for their function, I follow Badan & Haegeman's (2022) characterisation of peripheral *while*-clauses in tentatively suggesting that PSCs express some proposition in the context of which the main clause is relevant. In this case, what determines 'relevance' is similarity. To determine where this fits in Wiltschko's theory, we can refer to the characterisations of the relevant 'anchoring' and 'linking' levels (2021:78):

Anchoring: 'anchor the event or individual to the deictic center'; 'configuring a proposition' (includes truth-conditions)

Linking: 'link the proposition to the ongoing discourse'

Consider (37) again:

(37) The ethicist declared that like it was not immoral to take pride in one's work, it was not immoral to take pride in one's appearance.

The *like*-clause provides context, but does not directly link to the speaker, Speech Act, or 'ongoing discourse'. Rather, it relates (in terms of relevance/similarity) to the proposition encoded in the associated clause. In as far as this is 'configuring a proposition', this favours attachment in the anchoring domain (TP in English).

3.5 Summary

The main conclusion from the above diagnostics is that the difference in functional integration between modifying and disjunct *like*-clauses maps to a difference in syntactic integration between central and peripheral adverbial clauses. Modifying/central *like*-clauses (CSCs) are best analysed as vP-internal, while disjunct/peripheral ones (PSCs) attach higher. Similar predictions fall out from analyses where PSCs are merged high in the extended TP vs. the C-domain, but a high-TP analysis might better capture similarities between PSCs and epistemic adverbs. There are a few outstanding questions, but none that I think are fatal for the above analysis.

4 Internal Syntax of English Similative clauses

I turn now to the internal make-up of the *like*-clause. The main questions I would like to address are:

Question 1) Is there evidence for a movement analysis, as traditionally assumed for comparatives?

Question 2) If yes, what moves, and from where to where?

Question 3) To what extent can we approach both similative types in the same way?

I start with CSCs, and then apply the same diagnostics to PSCs. This will inform discussion of analyses focusing on deriving different behaviour using the same elements in different syntactic configurations.

4.1 Central similative clauses: evidence

As noted by Chomsky (1977) and Hankamer (1973), comparatives show evidence of wh-movement. With respect to Chomsky's (1977) wh-movement characteristics, a similar picture arises for CSCs.

One open question concerns the general representation of adjunction. As far as I can tell, free adjunction to a maximal projection and adjunction mediated by a functional head make the same predictions concerning ordering, scope, and ellipsis/substitution, so the choice shouldn't bear on the discussion here.

The Syntax of English Similatives

Characteristic 1: Leaves a gap

As discussed in section 2, CSCs are 'structurally incomplete', with a gap that would be filled if we were comparing main clauses. We could go on to specify the missing manner (42a-c) or quality (42d-e):

- (42) a. She behaved like a toddler would behave badly.
 - b. She sings like a professional sings loudly.
 - c. She was strange like her mother was strange in a quiet way.
 - d. She is like her mother was loud.
 - e. It was a cake like my mother used to make ugly but delicious.

Characteristic 2: Long-distance displacement

The gap can be separated from the main clause by (several) clause boundaries:

i)	Manner complement	She behaved exactly like you said you knew she would (behave) $_{\scriptscriptstyle \perp}$
ii)	Predicative	She is like you said her mother was _ (at her age)
iii)	Manner adjunct	She sings like I imagine a professional does (sing) $_{\scriptscriptstyle \perp}$
iv)	NP adjunct	It was a cake like I remember my mother used to make
v)	ADJ adjunct	$^{\rm -}$ She was strange like I thought everyone else there was (strange) $_{\rm -}$

Table 7 Long-distance CSCs.

Characteristic 3: Island-sensitivity

CSCs appear sensitive to Islands, as shown in Table 8 (here relative clauses and wh-islands).

CSCs are also somewhat sensitive to negative/inner Islands. The following seem at least degraded with usual, non-focus stress:

- (43) a. ?? Mary behaved like an adult wouldn't.
 - b.?? Mary is like Jane isn't.
 - c. ?? Mary writes her poems like she doesn't write her books.

These judgements are not completely clear, though, and matters are complicated by the semantic oddness of comparing to something that *isn't*.

i) Manner complement	*She behaved like I know a toddler who would.
	*She behaved like I wondered whether she would.
ii) Predicative	*She is like I know her mother who was (at her age).
	?*She is like I wondered whether she would be.
iii) Manner adjunct	*She sings like I know a professional who does.
	*She sings like I wonder whether any professional can.
iv) NP adjunct	*It was a cake like I knew a baker who used to make.
	*It was a cake like I wonder whether I could make.
v) ADJ adjunct	*She was strange like I knew her mother who was.
	*She was strange like I wonder whether her mother was. (with intended manner sense)

 Table 8
 Island effects in CSCs.

Overt operators in colloquial speech

Another consideration is that we sometimes find overt operators in CSCs (examples from $COCA^2$):

i) Manner complement	How much will she take before she acts like how I think she should act?	2018; Magazine
ii) Predicative	It was like how we imagined the sixties were, except better	2015, Magazine
iii) Manner adjunct	we talk like how cousins talk	2017; TV
	I hope it begins like \mathbf{how} the 90s cartoon began	2012; Web
iv) NP adjunct	Unless men have X-ray glasses like what they used to advertise in the backs of comic books	2012; Web
v) ADJ adjunct	I don't know, I feel a little weird, but I'm okay.	2018; TV
Admittedly rare	Weird like how ?	
(adjective modification is rarer anyway) but	Like, weird weird.	
we do find <i>like how</i> in	It's complicated.	1993; Movie
questions:	Complicated like how ?	

 Table 9
 Overt operators in CSCs.

The operator being what rather than how in the nominal example (iv) perhaps suggests that the like-clause is actually non-modifying here.

4.2 Central similative clauses: analysis

4.2.1 Free relative analysis

On the basis of these diagnostics, the most straightforward analysis (Table 10) involves wh-operator movement from a vP-internal modifying position to a left-peripheral position in the *like*-clause, which, in the absence of other left-peripheral elements, we can call SpecCP. Essentially, the complement of *like* is a free relative. This accounts for the gap and the possibility of overt *how*, and the Island effects would be analogous to *how do you know a professional that sings? and ??how doesn't she sing?.

i) Manner complement	She behaved like [$_{\mathrm{CP}}$ HOW a toddler would behave HOW]
ii) Predicative	She is like [$_{\text{CP}}$ HOW her mother was HOW (at her age)]
iii) Manner adjunct	She sings like [CP HOW a professional sings HOW]
iv) NP adjunct	It was a cake like [$_{\text{CP}}$ HOW my mother used to make (?cakes) $\overline{\text{HOW}}$]
v) ADJ adjunct	She is strange like [$_{\text{CP}}$ HOW her mother was strange HOW]

Table 10 Free relative analysis of CSCs.

4.2.2 (Non-)Obligatoriness of deletion

A similar analysis is traditionally assumed for comparatives, where a degree operator moves to SpecCP of the complement of *than* (e.g Lechner 2008, Bacskai-Atkari 2018). But one difference between *than*-clauses and *like*-clauses is that obligatory 'comparative deletion' applies to the former. There, an overt (noncontrastive) parameter yields ungrammaticality, e.g. *she is taller than her mother was* (**tall*), whereas in similatives it can be overt, e.g. *she is strange like her mother was strange*. We can attribute this to the lack of a Degree Phrase (DegP) in similatives. In most analyses of comparatives, the parameter (*tall*) moves to form a DegP [*HOW*(+*much*) *tall*], creating a chain between the higher and lower copy which will be subject to chain reduction (Nunes 2004). For example, in Bacskai-Atkari's (2018) analysis, this DegP moves inside a larger constituent to SpecCP:

(44) Mary is stranger than her mother is. Mary is stranger than [$_{\text{CP}}$ [$_{\text{QP}}$ how-strange] her mother is [$_{\text{QP}}$ how-strange]]

The higher copy is deleted by separate mechanisms irrelevant for present purposes. For similative constructions with a parameter, we posited a structure like the following:

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(45) Mary is strange like [CP HOW her mother was strange HOW]

Crucially, *strange* doesn't move to form a DegP [how-strange], so it is not (part of) a lower copy and is not necessarily deleted by copy deletion/chain reduction.

4.3 Peripheral similative clauses: evidence

Here, I examine how PSCs interact with wh-movement diagnostics. I postpone discussion of Islands until after some potential analyses are developed in section 4.4 and section 4.5, since it is useful to refer to the analyses there.

Characteristic 1: Leaves a gap

Peripheral similatives do not contain a clear gap (aside from any left by ellipsis); they appear to compare complete clauses (recall 17) There is no identifiable *variable* (x-manner or x-property) standing for something in the *like*-clause which could later be specified, which would suggest movement from a low position.

Characteristic 2: Long-distance displacement

We have an apparent parallel to Table 7 here, since the complement of *like* can be multi-clausal:

vi)	Disjunct predicative	Mary is an enthusiastic student, like I have heard her sister is.
		Mary is married like I know Jane is.
vii)	Disjunct likeness	Mary sings beautifully, like you told me her sister did.

 Table 11
 Long-distance PSCs.

However, without a clear notion of what is 'displaced', or where from, this doesn't necessarily indicate movement.

Overt operators in colloquial speech

We sometimes get overt operators in PSCs; Table 12 shows some examples from COCA.

4.4 Peripheral similative clauses: analyses

With this evidence in mind, I consider three potential analyses of the internal syntax of PSCs, mirroring the analyses of their external syntax examined in section 3.3. There the choice was between no integration into the main/associated clause, adjunction to CP, or adjunction in the extended TP. Here I consider analyses with

vi) Disjunct predicative	Just be honest with him. Oh, like how you were so honest about pretending to stutter all that time?	2011; TV
vii) Disjunct likeness	it is the inner stars that are moving too slow like how sand slows down in an hour glass to pass through a constriction.	2012; Web
	I think she's taking movie night personally because watching old movies was her thing with Patrick. Like how doing mime was my thing with Patrick.	2008; TV

 Table 12
 Overt operators in PSCs.

no operator, an operator merged in the C domain, or an operator moving from the extended TP, roughly as follows:

- (46) Mary gave up, like she always gives up.
 - a. No operator: ... [PP] like [CP] [CM] [PP] she always gives up]]]]
 - b. SpecCP operator: ...[PP like [CP HOW [C Ø [TP she always gives up]]]]
 - c. Extended-TP operator: ...[pP like [CP HOW [C Ø [PP HOW [PP when always gives up]]]]]

4.4.1 No operator

On this analysis, there is no operator in the left-periphery of PSCs. Given the above examples with overt operators, we would have to say that they can occasionally be formed with an operator, or that when *how* introduces a complete clause it is a C head (contra Legate 2010, Corver 2021). *Like* could select a finite complement clause (FCC) of a specific interpretive type via features on the complementiser. Relevant features might be [-wh] and [+factive], given that the propositional content appears presupposed/not at-issue. Consider the following discourse, constructed parallel to Aravind & Hackl's (2017: 50) example (7):

- (47) A: Does Mary sing beautifully?
 - B1: #Jane sings beautifully, like Mary does.

 #Like Mary does, Jane sings beautifully.
 - B2: Jane sings beautifully, but Mary doesn't.

The incongruity of the B1 sentences is expected if the *like*-clause content is presupposed, since 'Speaker B accommodating the presupposition entails treating the common ground as already containing the answer to the question' (Aravind & Hackl 2017: 50). If the incongruity were due to over-informativeness/indirectness,

we would expect B2 to be bad. Incorporating this, the complement of *like* would be akin to a factive *that*-clause. This perhaps begs the question of why *that* cannot appear overtly:

(48) *Mary sings beautifully, like that Jane does.

Like also cannot usually select *that-*clauses:

(49)?* That Mary left was surprising, like that Jane left (was).

It is unclear how serious these problems are to a no-operator analysis of PSCs, so this account is perhaps broadly compatible with the English data. But it does make the internal syntax of central and peripheral similative clauses unrelated in a way which seems at odds with a) that the two types are expressed in the same way crosslinguistically, b) that many languages use a relative/wh-operator for this purpose, and c) any attempt to unify the syntax of similative clauses, adverbial clauses, or FCCs in general.

4.4.2 Operator merged in C-domain

An alternative is to have an operator in the C-domain, but base-generated there. Research into 'complementizer-like *how*-clauses' (CLHCs) supports the idea that an operator does not necessarily entail movement. Legate (2010) investigates these CLHCs, where *how* introduces a declarative embedded clause:

(50) They told me **how** the tooth fairy doesn't exist (Legate 2010: 121)

Legate shows that CLHCs pattern like definite DPs and unlike both embedded declarative *that*-clauses and embedded interrogative clauses. Some properties that may be relevant for present purposes are:

- May be complement of a preposition
- Appear with predicates s-selecting propositions, and not ones selecting [+Q] complements
- Can be paraphrased by 'the way that'
- · Content is presupposed

Though CLHCs are like *how*-free relatives in showing DP-like behaviour, Legate finds no evidence of movement from a low position in the former, since they are insensitive to negative/inner Islands:

how free relative	how-clause
They told me how they think you worded the letter.	They told me how they think you worded the letter properly.
?? They told me how they don't think you worded the letter.	They told me how they don't think you worded the letter properly.

Table 13 Negative Islands in free relatives vs. CLHCs; sentences from Legate (2010:130).

Legate proposes that *how* is merged in SpecCP, with a DP layer above CP:

[51)
$$[VPV (told me)]_{DP}[DO[CPhow]_{CO}[TP(they don't think...)]]]]]$$

There is potential support for an analysis where the complement of *like* in PSCs is a CLHC. Firstly, if *like* is a preposition, it could select a CLHC since these pattern like DPs. Secondly, it accounts for the apparent factivity of PSCs; as Nye (2013) notes, CLHCs are [+wh, +factive]. Lastly, PSCs are insensitive to negative/inner Islands:

- (52) If you're someone who can't drive, like I can't, you find a lot of American cities are not just difficult, but really quite strange. COCA 2012; Web
- (53) I don't think you know me, like I don't know you. COCA 1995; Spok

On the other hand, we also expect insensitivity to negative Islands on the other analyses. If there is no operator, there is no movement, and if an operator moves from high in the TP domain, the movement shouldn't cross the negative.

The main appeal of the SpecCP-operator approach is that it seems to give a simple but unified account of the central/peripheral distinction in terms of where the operator is merged, without postulating movement that we don't see any reflexes of.

4.4.3 Operator moved from extended TP

The third option is to maintain the central/peripheral distinction as a function of where the operator merges, but in PSCs have it merge in the extended TP and move higher, to some left-peripheral clause-typing position. The main motivation comes from a 'parallel clauses' approach, where there is a correlation between the position of the *like*-clause in the matrix clause and the position of the operator in the *like*-clause. This parallelism might be useful for the mechanism of comparison, matching two like properties: in CSCs, two manners, and in PSCs, some sort of epistemic property. This is essentially what Desmets (2008) proposes, in more semantic terms, for French similatives; some discourse-related operator is extracted from PSCs.

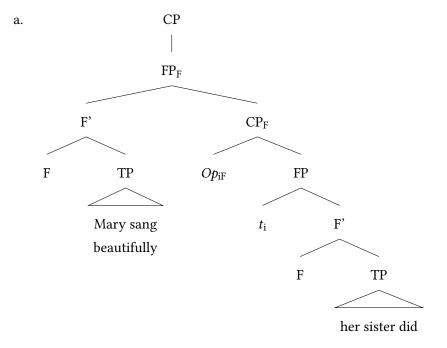
This sort of parallelism is the basis of Endo & Haegeman's (2019) approach to adverbial clauses, where their internal syntax determines their external syntax. The

main idea is a (featural) matching condition between an adverbial clause and the projection it attaches to in the matrix clause. The account rests on two hypotheses:

- a) Adverbial clauses are derived by operator (or head) movement to the C-layer, where the features of the moved operator (or head) provide the clause-typing features of the adverbial clause.
- b) A matching condition requires that an adverbial clause with clause-typing feature [x] merges with a functional projection instantiating a matching feature.

To extend this to similatives, we could take the authors' suggestion that for PACs (e.g. peripheral *while*-clauses), the matching feature is some Mood-type feature, something high up in Cinque's (1999) hierarchy. The operator moves from the high position where it gets this feature to the highest clause-typing position, so the clause is a sort of 'high free relative'. Remaining neutral on what exact functional projection (FP) the operator launches from in PSCs,³ an example sentence might be as follows, where CP designates the clause-typing projection:

(54) Mary sang beautifully, like her sister did (too).



If this is viable, similative clauses in general could be added to the list of relative-like constructions, which is important in syntactic theories with pervasive relativisation (for complement clauses e.g.Arsenijević 2009 and Kayne 2014; for derived nominals e.g. Kayne 2008).

³ I leave open the possibility that this could differ in initial and final PSCs if initial ones are somehow 'topic-like' and merge higher, e.g. in some left-peripheral ModP.

A few questions arise here. Firstly, I have ignored *like* itself. We have two options for placing *like* in the schema in (54): in a PP on top of the embedded CP, or incorporated/attached to the operator. On the first option, [F] has to 'type' the whole PP, so the relevant feature is visible for the matching relation. On the second option, what moves is some *like*+operator unit, which has [F] since it originates in FP. Interestingly, this resembles Kayne's analysis of the French Similative Marker *comme* as *like*+HOW (2005:312). While I do not address the implications of each option here, I see no reason that *like* cannot fit into the above account.

Another question is what the matching feature is in CSCs. Presumably, the operator would get a [V] feature by virtue of originating in VP, typing the CSC as [V], which then matches and merges with the matrix VP. I can't see any problem with this, but it differs from the temporal cases discussed by Endo & Haegeman (2019) because circumstantial adverbials apparently don't originate in some dedicated functional projection with specialised features.

However it is implemented, the insight from this approach is that if the internal syntax of an adverbial clause determines its external syntax, we have a way of unifying the derivations of a range of adverbial clauses and potentially linking them to finite complement clauses more generally. To work similatives into this account, we could propose an analysis of their internal syntax that mirrors the tentative conclusions about their external syntax in section 3: all similative clauses are derived by operator movement to a clause-typing position in the C-domain, from a vP-internal position in CSCs and from a high-TP position in PSCs. The potential downside is that this 'high movement' in PSCs is very difficult to diagnose; we might ask what could falsify this analysis. With learnability in mind, there is a tension: we (and presumably learners) don't want to postulate features that we don't see evidence of/can't discover from the input, favouring analyses with less movement. On the other hand, if we consider the wider context and say that adverbial clauses are formed by relative-type movement, it perhaps makes sense to apply this as widely as possible; we (and the learner) just apply a mechanism we already have.

4.5 Decomposing HOW

The kind of analysis in section 4.4.2/3, where the CSC/PSC distinction is cast in terms of where the operator is merged, uses the same elements in the derivation of both similative types. We therefore don't require two homonymous HOW-elements that can show up overtly in CSCs (Table 9) and PSCs (Table 12). Here, I consider the potential advantages of giving this common operator more structure. The main argument is that this might fit similatives into a unified approach to adverbials, where incorporating a nominal element is a link to related constructions.

As a starting point, we can go back to Katz & Postal (1964), who subsume English adverbials under a general P+NP structure as in the following:

- (55) In which way: [PP in [NP [Det wh+the] [N way]]]
- (56) How: [PP in [NP [Det wh+a/some] [N Pro (WAY)]]]

Corver (2021) assigns the structure in (57) to Dutch *hoe* 'how', which is merged in different positions in its interrogative and CLHC uses:

(57) [PP IN [DP hoe [NP WAY]]]

This is essentially an updated version of (56) where WAY is a minimal/light nominal. Recall that one of Legate's (2010) properties of CLHCs was 'can be paraphrased by 'the way that" (section 4.4.2) – this analysis takes this parallel seriously.

The structure of (57) is potentially shared among adverbial elements, as sometimes proposed for adverbs and adverbial wh-words:

- (58) $\left[PP \text{ IN } \left[PP \text{ IN } \left[PP \text{ ACE} \right] \right] \right]$ (Kayne 2005: 69)
- (59) [PP] IN [PP] Carefully [PP] WAY]]] or [PP] Ø [PP] Ø [PP] Ø [PP] Q [PP] Ware a nominal way/manner element (Baker 2003, Alexeyenko 2015)
- (60) [PP AT [DP when [nP TIME]]] (Corver 2021)

Katz & Postal extend their analysis to the degree-how of comparatives (section 4.4.2), which in our terms might look like [PP TO [DP how [nP EXTENT/DEGREE]]]. So 'decomposing' the operator could avoid homonymy between degree- and adverbial-how and, if extended to silent HOW, formalise the connection between comparatives and similatives.

For similative clauses, then, we could embed HOW in some larger structure with a silent nominal. There are a couple of things to bear in mind here. Though postulating a common operator in CSCs and PSCs is an appealing way to unify their derivations, that the operator is generally null makes the 'decomposition' perhaps more speculative. The implementation also depends largely on the chosen analysis of a) free relatives and b) *like*. I therefore give only a brief overview of how a 'decomposition' could work.

I mentioned two possibilities in section 4.4.3: HOW moves alone or in a *like*+HOW unit. This apparently relates to a wider question concerning free relatives (FRs), where English data make it difficult to tell whether prepositions are part of the head. van Riemsdijk (2006: 353) shows two potential analyses of FRs with apparent 'missing prepositions' (e.g. 61), which I compare in Table 14 to potential analyses of (here central) similative clauses (e.g. 62) with 'decomposed' HOW.

(61) He'll remain in whatever town he has been living all his life.

(van Riemsdijk 2006: 352)

(62) Mary sings like Jane sings.

In the 'missing preposition' analysis only the DP moves. Haegeman (2012: 205) suggests something similar for *after*-clauses, in her terms as follows:

⁴ We could potentially enforce the silence of the lower P by appealing to DP-movement around IN, invoking some Doubly-Filled-Comp effect.

```
'missing preposition' ...V [PP P [FR [DP wh-word]_i ...V... P [e]_i ...]]...
a)
     analysis
     73a)
                                  ...remain [PP in [CP [DP whatever town]<sub>i</sub> ...living...IN [DP
                                  \frac{\text{whatever town}}{\text{i}} \dots]]\dots
                                  ...sings [PP like [CP [DP HOW WAY]i ... Jane sings... IN
     74a)
                                  [DP HOW WAY]<sub>i</sub> ...]]...
                                  ...V [FR [_{PP} P [_{DP} wh-word]]_i ...V... [e]_i ...]...
     PP-movement analysis
                                  ...remain [_{CP} [_{PP} in [_{DP} whatever town]]_i ...living... [_{PP}
     73b)
                                  in [DP whatever town]_i \dots] \dots
                                  ...sings [CP [PP like [DP HOW WAY]]i ... Jane sings... [PP
     74b)
                                  like [DP HOW WAY]]<sub>i</sub> ...]...
     74b) external like
                                  ...sings [PP like [CP [PP IN [DP HOW WAY]]i ...Jane sings...
                                  [PP IN [DP HOW WAY]]i ...]]...
```

Table 14 Two analyses of free relatives with prepositions.

(63) [...after [$_{DP}$ [$_{CP}$ OP TIME [$_{TP}$...t...]]]]

In the PP-movement analysis (74b), what moves is something like Corver's [PP IN hoe WAY] but with a silent HOW. An important consideration here is how *like* links to the [HOW WAY] part, that is, whether *like* should be treated like the IN or AT of other 'decompositions' (e.g. 58-60). This is unclear, considering the mixed preposition/complementizer properties that like shows as a (little-mentioned) member of the 'subordinating conjunction' family (e.g. Haumann 1997). I leave this question open. To whatever extent it is necessary, either analysis is also compatible with a DP layer above CP in FRs, as in (63).

Another possible configuration of these elements comes from transferring parts of Demirdache & Uribe-Etxebarria's (2004) analysis of temporal clauses to similative clauses (adapted and simplified from the above authors' representations):

(64)
$$[PP \ like [DP \ WAY [CP \ HOW_i \ [TP \dots (t_i) \dots]]]]$$

Much further work would be required to investigate the implications of each analysis, which parts are necessary, and how the silent elements relate to their overt counterparts, but the upshot is that embedding HOW in a more articulated structure potentially brings it in line with adverbial constructions more widely, whatever the exact combination of elements and movements. Silent nominals have been postulated for CLHCs (Corver 2021) and FRs (e.g. Kayne 2005), so it seems natural to extend this approach to similatives if we adopt the analyses in section 4.2.1 and section 4.4.2/3 where CSCs are assimilated to free relatives and PSCs to 'high' free relatives or CLHCs.

Clothier

4.6 Peripheral similative clauses and Islands

I turn now to Islands, which seem problematic for almost any analysis of the internal syntax of PSCs. Table 15 shows that they appear sensitive to Islands, like CSCs:

vi)	Disjunct predicative	*Mary is a painter, like I knew her mother who was too. *Mary is married, like I know lots of people who are.
		*Mary is married/a painter, like I wondered whether she was.
vii)	Disjunct	*Mary sings beautifully, like I know her sister who does too.
]	likeness	*Mary sings beautifully, like I wondered whether she did.

Table 15 Island effects in PSCs.

If the operator starts high, or there is no operator, Island effects are unexpected:

(65) *Mary is a painter, like I knew her mother who was.
... [CP ?Opi [FP ?Opi [TP I know [DP her mother [CP who was (a painter)]]]]]

We might suggest that the HOW/*like*+HOW operator does start high, but in the lower CP, so the Island sentences are bad because this lower CP position is filled:

- (66) Mary is a painter, like HOW you told me [CP HOW that she was]]
- (67) *Mary is a painter, [like I knew her mother [CP who was]]

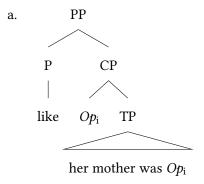
But it is unclear why the operator should originate in the lower clause and move. It also destroys the explanation for the lack of inner Islands in PSCs, since the operator has to move over a negative in examples like the following:

(68) You don't know me, like [HOW I don't think [HOW I know you]]

This hypothesis arguably creates more problems than it solves.

To derive island effects, something could move from low in the structure, as in Potts' (2002) analysis of *as*-clauses:

(69) She is a painter, like her mother was.



This is not unproblematic, though. Firstly, we have reason to think that any operator in PSCs doesn't originate below TP, unlike in CSCs. For instance, they are insensitive to negative Islands (52, 53). A low position also seems odd given the function of the operator. It can't stand for the object or vP since this sort of gap is not necessary (e.g. she is a painter, just like her mother was a painter; she gave up, like she always gives up), and there is nothing else usually within the vP (event-related properties) that it would relate to. In general, this analysis makes the internal syntax of central and peripheral as-clauses very similar. The difference is in the operator – an 'adverbial relativiser' in CSCs and a 'flexibly-typed morpheme' in PSCs (Potts 2002: 650, 624). This seems at odds with the differences between CSCs and PSCs, but also with attempts to unify their derivations with the same elements in different configurations, motivated above.

So while PSCs do often show (outer) Island effects, we could ask whether anything other than operator movement could give this result. Given the above difficulties with accounts postulating Island-sensitive movement, it seems worthwhile to look into other approaches to (outer) Island-hood here.

4.7 Summary

In this section I asked three questions about the internal syntax of similative clauses:

Question 1) Is there evidence for a movement analysis, as traditionally assumed for comparatives?

Question 2) If yes, what moves, and from where to where?

Question 3) To what extent can we approach both similative types in the same way?

I attempt to cover 1) and 2) for both similative types, and then summarise what this means for 3).

CSCs

- 1) Yes there is an interpretable gap in the clause, inner and outer Island effects, and colloquial availability of overt *how*.
- 2) The simplest analysis is a free relative one, where an operator moves from a vP-internal position to a clause-typing CP position.

PSCs

1) Not conclusive. The only evidence for movement comes from outer Island effects, but problems seem to crop up with implementations of a low-operator movement analysis. No movement would be involved if the operator were merged in the C-domain, like Legate's (2010) CLHCs.

2) In an Endo & Haegeman (2019)-type analysis, we would have movement, but from a high position to an even higher clause-typing one; I found no diagnostics for this movement here, so it is more motivated by theoretical advantages for a unified approach to adverbial clauses (and potentially other clause types too).

3) Unified analysis?

While it is probably not the only account that can capture the observed behaviours of central and peripheral similative clauses, it is very tempting to propose an analysis with the same (operator and silent nominal) elements merged in different configurations, linking the derivations of these similative clauses and other adverbial clauses, without postulating homonymous elements. One way to do this would be to have relative-like movement in all similative clauses, from a low position in CSCs and a high position in PSCs. But we could still have a configurational account without movement in PSCs (i.e. with an operator base-generated in the left-periphery). As far as I can tell, the choice depends on how comfortable we are with postulating undetected movement to give a potentially more coherent overall system.

5 Extending the Analysis: Accord clauses

There is another type of *like*-clause that I have not yet considered, which I call 'accord clauses' following Haspelmath & Buchholz (1998). These express someone's comment or agreement with something in the main clause:

- (70) The movie flopped horrifically like the critics predicted.
- (71) Like I said, she sings beautifully.

Crosslinguistically, these are quite often expressed in the same way as manner similatives (Treis & Vanhove 2017, Kortmann 2012: 45/81 languages in Kortmann's sample). Here I summarise how the main themes in section 2-4 apply to accord similative clauses (ASCs) and the implications for their relation to other similatives.

5.1 Accord similative clauses: external syntax

Ordering:

ASCs show rather free linear positioning, unlike circumstantials:

(72) (Like I predicted) the movie (like I predicted) flopped horrifically (like I predicted).

This suggests higher attachment, consistent with their discourse function.

Prompt	Question
Mary hated vegetables, like her parents said, and so did Jane.	Please select everyone that said their child hated vegetables.
Options	
Mary's parents	(strict)
Jane's parents	(sloppy)
None of the above [text box]	

 Table 16
 Accord-type survey question.

Ellipsis/substitution:

I included three accord prompts in the survey, as in Table 16.

The average sloppy readings/total responses was only 11.50%, which, following the logic of section 3.2.3, suggests attachment above TP.

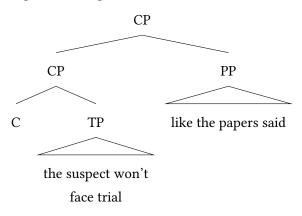
Scope:

ASCs interact with sentential negation differently to the previous types. Consider the following:

(73) The suspect won't face trial like the papers said.

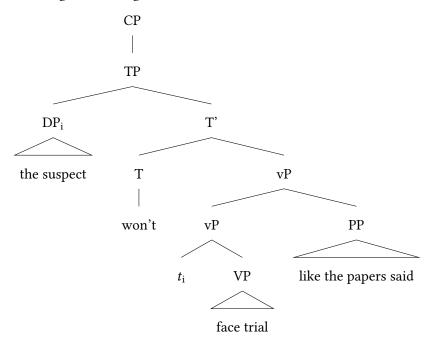
Ignoring the marginal manner reading, a new ambiguity is that the papers might say that the suspect will face trial or that the suspect won't. Since accord clauses apparently get their reference locally (Potts 2002), this suggests that ASCs can attach above or below sentential negation, getting their reference either from a negated proposition (74a) or the vP proposition (74b) (again, with negative auxiliaries in T for simplicity).

(74) a. Negated reading



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b. Non-negated reading

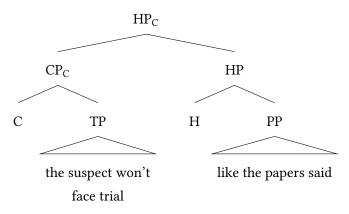


Note that a final *like*-clause could be high or low-adjoined, whereas an initial *like*-clause can only be high-adjoined, giving only the negated reading:

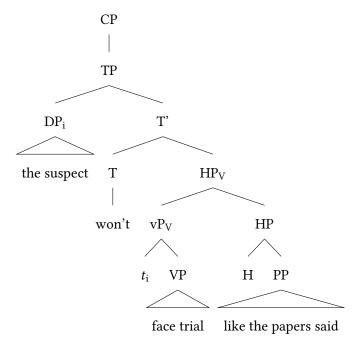
(75) Like the papers said, the suspect won't face trial.

But this seems to square less nicely with Wiltschko's (2021) theory of domains, since apparently ASCs can merge lower than their discourse function would suggest. We could somewhat remedy this by having ASCs unintegrated into the clause, merged at a discourse level instead, as represented in (76) with the discourse projection 'HP' that Cinque (2008) uses for non-integrated non-restrictive relatives:

(76) a. Negated reading



b. Non-negated reading

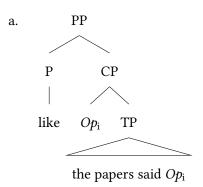


This captures the linear order and scope effects in (74) without attaching ASCs directly to vP. Categorial feature-percolation from SpecHP to the dominating HP, as in Cinque (2008), would yield another adjunction-like CP layer in (76a) and a vP layer in (76b) This is interesting in light of research into a discourse domain or 'periphery' at the edge of vP, parallel to the clausal periphery (e.g. Belletti 2004).

5.2 Accord similative clauses: internal syntax

Table 17 shows how ASCs interact with the movement diagnostics. Note that they pattern like CSCs, notably with respect to the obligatory gap and the inner Island effects distinguishing CSCs and PSCs. This similarity is reflected in Potts' (2002) analysis of 'parenthetical' *as*-clauses, where an operator moves from a vP-internal position:

(77) The suspect will face trial, like/as the papers said.



Diagnostic	Example	Movement?
Clear gap in <i>like</i> -clause	The movie flopped horrifically, like I predicted $(_/*it/*that)$.	Not necessarily
	Mary wanted Jane to help Sue, like she promised $_{\scriptscriptstyle -}$	
Long-distance dependency	The movie flopped horrifically, like I remember you said you predicted.	Not necessarily
Outer Islands	*The movie flopped horrifically, like I knew a critic who predicted.	\checkmark
	*The movie flopped horrifically, like the critic had wondered whether to predict.	
Inner Islands	??The movie flopped horrifically, like the critic didn't predict.	\checkmark
Overt operator (examples from COCA)	'Is it really true that God is always watching us, like how you said?' 1998; Fiction	Not necessarily
	We'll write down the poem, and we'll pass it along. Just like what you said in the first place, okay? 2018; movie	

 Table 17
 Interaction of accord clauses with movement diagnostics.

The question is what this ASC operator is. The gap is understood as the verb's complement (e.g. *said* [the suspect will face trial]). This 'missing complement' resembles Null Complement Anaphora (NCA), which is usually analysed with a null sentential proform (Depiante 2000). This could extend to ASCs (80):

(78) Mary wanted Jane to help Sue, but she refused.
 (79) Mary wanted Jane to help Sue, like she promised.
 (80) ...like she promised IT/SO

Table 18 shows support for this analysis.

The null proform itself explains the obligatory gap and the 'long-distance' examples. The other effects in Table 17 would follow if the proform moved as in (77). The non-integration/'HP' analysis (76) resolves the apparent issue this poses for Endo & Haegeman's (2019) scheme, in that something moves from a low position without the clause necessarily attaching low. ASCs are externally merged differently from CSCs (via a discourse head), so their similar internal syntax is unproblematic.

Looking further into this analysis, if what moves is a sentential proform, this is presumably not the (like+)[HOW[WAY]] unit discussed in section 4.5. In the spirit of a unified approach to adverbial clauses, we might propose some similar 'decomposition' with a silent nominal:

Diagnostic	Example
Non-linguistic antecedents ('Deep anaphora'; Hankamer	Context: Looking at a graph of movie ticket sales, starting low and declining.
& Sag 1976)	'Just like I predicted'
	# 'Just like I predicted it would'
Structural mismatch between the 'gap' and the	The bins had to be emptied every night, like we promised Bill.
linguistic antecedent ('Deep anaphora')	#We promised Bill the bins had to be emptied every night. (not the understood promise)
	*We promised Bill the bins to be emptied every night.
Complementary distribution with overt proforms	Mary hadn't stolen the biscuits, but I had thought *(so/it/that) for a long time.
	Mary hadn't stolen the biscuits, like I had thought (*so/*it/*that) for a long time.

 Table 18
 Evidence for a null proform in accord clauses.

(81) ...like $[DP THAT [nP THING]]_i$ she promised $[t_i]$

Potts (2002) has a 'non-DP operator' in accord as-clauses, which could potentially fit the adverbial P+DP scheme discussed in section 4.5, though it is unclear what exactly this would look like. Another implication of this analysis is that the target of movement might be different in ASCs, since it is a proform rather than wh-operator moving. In a Cartographic approach (e.g. Benincà & Poletto 2004), wh-elements land in the Focus field, whereas a proform might occupy a higher Topic position.

In an alternative account, the proform in ASCs wouldn't move, so we could analyse them like PSCs, with a clause-typing (*like*+)HOW element in the left-periphery as in section 4.4.2/3:

(82) ...(like+)HOW she promised IT/SO

But this leaves the inner and outer Islands unexplained, and the availability of overt *what* rather than *how* (Table 17).

In sum, the external syntax of ASCs resembles that of PSCs (similar ordering, high attachment), and their internal syntax resembles that of CSCs (apparent movement from low position), so ASCs can't be fully assimilated to either. Moreover, they have some unique characteristics (availability of high or low attachment, null proform), so we cannot give them the internal syntax of CSCs and the external syntax of PSCs, which would be unexpected anyway in Endo & Haegeman's (2019) framework. The most promising approach seems to be one where some operator+nominal unit moves from a vP-internal position to a left-peripheral one, and the whole clause

attaches in some discourse projection. This leaves many loose ends, but I hope to have sketched how the discussion in section 2-4 relates to a more 'peripheral' member of the similative family. To clarify the analysis, a more concrete notion of what is moving should be developed, and the link between 'unintegrated' adverbial clauses and non-restrictive relative clauses should be examined more thoroughly.

6 Further Directions

I have brushed over many things that deserve fuller treatment. First, there is the status of *like*. I have called it a preposition here, but, for instance, Bacskai-Atkari (2020) has Similative Markers in C. This is part of a wider question about the categorial nature of complementizers and prepositions, and also the synchronic and diachronic connections between these categories and others like pronouns. This is examined, for instance, by Roussou (2020), and is important in Nanosyntactic work on complementizers (e.g. Baunaz 2018). It may turn out that 'is *like* a preposition or complementizer?' is a less useful question than, for instance, 'what features are associated with *like*?'.

Secondly, *like* and *as* do not pattern exactly the same. For example, *as*-similatives cannot be phrasal (e.g. *Mary is a painter, as her mother) and can induce subject-auxiliary inversion in disjunct types (Mary is a painter, as/*like was her mother). This raises many questions for their syntax. Perhaps relevant is their history: *like* seems to be taking over the functions of *as*, starting with modifying types, where *as* is now archaic, and spreading to disjunct ones, where *like* is still sometimes non-standard. They used to co-occur; *like* as was available in many functions for some time, so at least in the past they presumably did not compete for one position (Oxford English Dictionary, n.d.). This is potentially interesting from a grammaticalisation perspective too.

A couple of other directions include the two constructions in section 2.2 and how they link to the similatives discussed here, and the clausal/nominal parallel with respect to the modifying/disjunct distinction, which should be investigated in the context of work on the nominal periphery (e.g. Giusti 2008). If we do have non-modifying similatives at the DP level, the vP level, and the clausal level, this is of interest for work on the general organisation of the phase and parallels between phases (e.g. Belletti 2004, Poletto 2008).

One last big question is what, if anything, carries over to phrasal similatives. With comparatives, it is debated whether phrasal types (*Mary sings better than Jane*) are reduced versions of clausal types (*Mary sings better than Jane sings*). For similatives, the question would be whether the *like*-clause in *Mary sings like Jane* has the structure [like [CP ... Jane [sings]...]] or [like [DP Jane]]. Many of the points of argument with comparatives (see Huddleston 2002: 1114) would apply to similatives, including case assignment and the treatment of subject/object ambiguities (parallel to ambiguous I loved Mary more than Jane, we could have ambiguous I loved her like a mother), so there is room for debate here.

7 Conclusion

In the preceding sections, I have given an overview of English similative clauses and the main questions for an analysis of their syntax. I argued that the associated functional and syntactic differences between modifying and disjunct types fall out from a general high/low distinction in their external syntax (position of the clause) and internal syntax (position of an operator), where the latter might determine the former in a unified approach to adverbial clauses like that proposed by Endo & Haegeman (2019). The tight link between the expression of these types crosslinguistically makes it especially desirable to link their derivations, also in terms of the elements (operators, silent nominals) involved. The implementation of these ideas is not always straightforward and raises a lot of further questions, particularly as concerns the kind of 'high' movement postulated for peripheral similative clauses and the exact configuration of any shared elements. Given the multifunctionality of like-clauses, another question is how widely these ideas extend across the whole 'similative family'. The discussion of accord clauses in section 5 demonstrates that the degree of integration into the matrix clause will make a difference here, and not everything transposes directly to less integrated types. But looking broadly, there is potential for a Minimalist account to capture the behaviour of English similatives and their place in the wider context of comparatives, adverbial clauses, and potentially complement clauses in general.

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APPENDIX

Below are the 23 prompts and questions used in my Qualtrics survey, presented to 299 respondents in a random order. The answer options included strict and sloppy readings and a 'none of the above' option with a text box for optionally filling in a different answer, and in the modifying types, an 'either' option (see examples in Tables 4, 5, and 16). The questions are organised here by the types in Table 2, and the type of vP/TP-targeting operation (ellipsis or substitution).

Similative type		Test	Prompt	Question
Manner	1	Eli	Mary behaved like her sister did, but Jane didn't.	Jane didn't behave like
complement (i)	2	Sub	Mary treats everyone like her old boss used to, and so does Jane.	Jane treats everyone
Predicative	3	Eli	Mary is like all her friends are, but Jane isn't.	Who isn't Jane like?
(ii)	4	Sub	Mary is like her mother was, and so is Jane.	Who is Jane like?

Manner	5	Eli	Highlander II begins like its predecessor did, but Sharknado II doesn't.	Sharknado II doesn't begin like	
adjunct (iii)	6	Sub	Mary sings like her sister does, and so does Jane.	Who does Jane sing like?	
NP-adjunct	7	Eli	Mary preferred those cigarettes like her friend smoked, but Jane didn't.	Jane didn't prefer	
(iv)	8	Sub	Mary wore a dress like her mother used to wear, and so did Jane.	What did Jane wear?	
Adj-adjunct	9	Eli	Mary was pretty like her mother was, but Jane wasn't.	Jane wasn't pretty like	
(v)	10	Sub	Mary was strange like her friend was, and so was Jane.	Jane was strange	
Disjunct	11	Eli	Mary is a student, like most of her friends are, but Jane isn't.	Please select everyone who is a student.	
predicative (vi)	12	Sub	Highlander II was terrible, like its predecessor was, and so was Sharknado II.	Please select all the films that were terrible.	
Disjunct	13	Eli	Highlander II flopped horrifically, like its predecessor did, but Sharknado II didn't.	Please select all the films that flopped horrifically.	
likeness (vii)	14	Sub	Mary sings beautifully, like her sister does, and so does Jane.	Please select everyone who sings beautifully.	
	15	Eli	Mary is strange, like her friends warned me, but Jane isn't.	Please select everyone who warned me about their friend.	
Accord (viii)	16	Eli	The first candidate was proficient in excel like her resume said, but the second candidate wasn't.	Please select everyone whose resume said 'proficient in excel'.	
	17	Sub	Mary hated vegetables, like her parents said, and so did Jane.	Please select everyone that said their child hated vegetables	
Anaphor	18	Sub	Mary proof-read her essay like a bloodhound sniffing out grammar mistakes, and so did Jane.	Whose essay did Jane proof-read?	
controls (anaphor not in <i>like</i> -clause)	19	Sub	Mary proof-read her essay, like a good student should, and so did Jane.	Whose essay did Jane proof-read?	

Clothier

	20	Eli	Mary worked on her handwriting every day, but Jane didn't. (anaphor, no like-clause)	Jane didn't work on
	21	Sub	Mary writes like most aspiring authors do, and so does Jane.	Please select everyone who writes like most as-
Other				piring authors.
controls (no like-clause or	22	Sub	Mary dances badly, like Jane does, and so does Sue.	Please select everyone who dances badly.
no anaphor	23	Eli	The first film was terrible, like I said, but the sequel wasn't.	Please select all the films that I said were terrible.

The 'other controls' were included to show basic understanding of the task, and were consistently answered as expected. The results for the critical types and the controls with anaphors and *like*-clauses were as follows:

The anaphor controls, as predicted, generally allowed sloppy readings, whether the non-anaphoric like-clause was modifying or disjunct.

The overall difference between the modifying types and the disjunct types was significant at the p<0.05 level (Fisher's exact test), though a lot of potential variables are packed into a few questions here. If we test the approximate minimal pair of 5 and 13, the difference is also significant (p<0.05), and the same holds for 6 and 14. The overall difference between disjunct and accord types was also significant (p<0.05), though again the number of questions invites caution.

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Question	Count Sloppy	Total Responses	%Sloppy
1	120	234	51.28%
2	104	227	45.81%
3	110	225	48.89%
4	163	231	70.56%
5	198	226	87.61%
6	101	228	44.30%
7	23	231	9.96%
8	148	231	64.07%
9	139	237	58.65%
10	59	225	26.22%
ModTotal	1165	2295	50.76%
Mod without NP/AdjP	796	1371	58.06%
(ambiguous)			
11	5	227	2.20%
12	63	224	28.13%
13	62	227	27.31%
14	16	232	6.90%
DisTotal	146	910	16.04%
15	3	222	1.35%
16	52	226	23.01%
17	23	230	10.00%
AccTotal	78	678	11.50%
18	177	227	77.97%
19	207	234	88.46%
ConTotal	384	461	83.30%