Where not to put why, and why not?

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> *Won't you be my number two?*
> *Me and number one are through*
> *There won't be too much to do*
> *Just smile, when I feel blue.*
>
> Joe Jackson*, Be my Number Two*

1. Introduction

Is the devil in the details, or do the exceptions prove the rule? For some researchers, the goal of grammatical theory is to derive simple, powerful, and categorical generalizations that allow the linguist—and, by extension, the child acquiring her first language—to project far beyond the proximate linguistic data.[2] For others, generalizations are crude, broad-brush, statements that capture only the central cases, and which represent a starting-point for deeper empirical investigation, rather than its culmination: see Elman *et al.* (1996). On the latter view, if you believe that some grammatical rule has a fully general application within a particular language, or that it applies directly to another language, you probably haven't looked closely enough at the phenomenon in question.

A good rule of thumb in evaluating generalizations might seem to be to consider how much work the general rule does, what is the balance in extension between the general rule and the exceptions. If the exceptions account for only a small fraction of the data, say, less than 5%, and the general rule accounts for 95%, we should have little hesitation in endorsing the general rule. By contrast, if the relationship is more balanced, say 60%-40%, we might have some cause for concern, especially if the irregular forms exhibit sub-

[1] This article is a slightly modified excerpt from the draft of a larger work: Duffield (in prep.): references to Part 2 or to other sections refer to the longer manuscript.

[2] Just to be clear: I am using the expression '(general) rule' to refer to any autonomous grammatical procedure for deriving grammatically well-formed sentences—or for excluding ill-formed ones: this includes traditional base-rules, transformational rules, generalized transformations, principles and constraints (Case Filter, EPP), and any other mechanism that is separate from and relatively insensitive to lexical and/or pragmatic information.

regularities of their own ("gang effects"). And where the general rule only accounts for a small minority of cases—5% for example—that cause for concern increases substantially.[3]

Traditionally, discussion of irregularity in psycholinguistics has focused on the acquisition and processing of inflectional morphology: see fn. 3 for a case in point. By contrast, the examples discussed in this article concern exceptions to allegedly general *syntactic* rules: most specifically, the concern is with apparent exceptions to the rules of question-formation in Present Day English.

The main thing to keep in mind throughout is that whatever view is taken of the general rules, there must be some mechanism for learning, marking and storing the exceptions. Grammatical analysis is a zero-sum game, and unless they are simply swept under the rug, exceptions must be represented somewhere in the language-processing system: the price of minimalist grammar is (generally) an increasingly complex lexicon and/or pragmatics; see Duffield (2014), also Culicover (1999).

Of course, linguists have long been aware of the fact of syntactic irregularities: nearly a century ago, Sapir's now-famous dictum "All grammars leak (Sapir (1921))" was aimed at just this problem. More recently, generative linguists were put on notice of *Irregularity in Syntax* by the examples in George Lakoff's seminal 1965 dissertation, published in 1970—under exactly that title (Lakoff 1970)).

As it turns out, however, most of the alternations discussed in Lakoff's thesis are now generally handled lexically, rather than being related in the syntax proper—precisely because of the unpredictable relationships that arise through affixation. Some representative examples are given in (1) below. Lakoff claimed, for example, that while robber might be derivationally related to rob, thief could not be related in the same way to thieve; similarly, it was claimed, that handwriting may be readable, but bats are not swingable:

1. a. John is a robber/John is a thief. [= (5-5)]

   b. John robs things/*John thieves things.

[3] A case in point is the *–s* plural morpheme in Modern Standard German, which only occurs in loanwords and neologisms (die Taxis 'the taxis, zwei Fibs, 'two fips'). In spite of its relative infrequency in German corpora, it has been claimed to be the sole rule-generated plural allomorph; see Marcus *et al*. (1995); *cf*. Dabrowska (2001).

c. His handwriting can be read/His handwriting is readable. [= (5-6)]

d. *This ball is hittable/*This bar is bendable/*This bat is swingable.

As should immediately obvious to the native-speaker, Lakoff's judgments do not apply to all varieties of English. In my idiolect, for example, 'John robs things' is unacceptable—you can rob *people* or *banks* but not *things* (from people or banks). On the other hand, 'John thieves things'—or at least, 'John is always thieving things'—is perfectly acceptable in many varieties of non-standard English, including the ones I grew up with. This is supported by the attested examples in (2):[4]

2. a. "If *she thieves* but once, she goes straight back where she came from."

b. 'Greta does not like to let other people pay for her. Some find this strange as she *thieves things* from others all the time, but when someone offers her anything outright she can't take it.'

As for the starred examples in (1d), these are all unexceptionable, to my ear.

A more interesting kind of putative exception is illustrated by the examples in (3) below. Lakoff claimed that the starred examples are unacceptable, and his judgments *of these particular sentences* seem to apply in all varieties of English. However, he was evidently mistaken about the source of the problem here: the acceptability of corresponding examples in (4) speaks against Lakoff's assertion such 'verbs do not undergo the passive transformation [categorically]' (Lakoff (1965/1970): 19):

3. a. John resembles Mary's mother/*Mary's mother is resembled by John.

b. John owes two dollars/*Two dollars are owed by John.

c. Two and two equal four/*Four is equaled by two and two.

d. I meant what I said/*What I said was meant by me.

e. I wanted a catcher's mitt/*A catcher's mitt was wanted by me.

[4] Sources: (2a) Val Wood, *Children of the Tide.* London: Corgi Books 1996; (1b) 'http://eyessmilesandwindows.blogspot.jp/2010_05_01_archive.html , accessed 11/12/14.

4. b. How to buy a car that money is owed on?

c. The return period for a given event is defined as the period of time on the long term average value at which a given event is equaled or exceeded.[5]

d. What was meant by that statement was quite unclear.

e. What was wanted were people who could speak the Russian language, to participate in an expedition to Chukotka…

If the examples in (4) are fine, then the *un*acceptability of the prior examples in (3) cannot be due to syntactic ill-formedness, since both sets of sentences are described by the same syntactic rules (at least, this is true in the theory that Lakoff adopted, as well as in most current generative analyses). Hence, the marking of examples in (3) with an asterisk (*)—the symbol conventionally used to signal a grammatical anomaly—is misleading: the anomaly must have a different representational or procedural source, most likely, a procedural one that takes account of pragmatic relationships.[6]

The cases examined below differ from those discussed by Lakoff in that they are neither amenable to a purely lexical remedy, however that should be stated, nor do the judgments on them depend on pragmatic factors. Instead, they seem to depend on purely constructional factors, including the finiteness of the clause in which they appear. This presents a theoretical problem since finiteness is not a categorical property of current generative theory, and because most versions of generative grammar since the late 1970s deny the existence of construction-specific rules more generally.

Let's begin with the Joe Jackson song above, and with its apparently innocuous first line *Won't you be my number two?* Syntactically, this is a negative *Yes-No* question. Yet that is not how it is standardly interpreted: for adult English native-speakers at least, the line only functions as a request or invitation ('Please be my number two'), rather than as a question about a future non-event ('*Is it the case that you will not be by number two/Is it not the case that you will be my number two?*' depending on how negation is interpreted

[5] Sources (c) http://books.google.co.jp/books?id=a_0z7qY65S4C, (e) http://en.wikipedia.org/wiki/Takigaks_%E2%80%93_Once_Were_Hunters Accessed 11/14/14.

[6] Intuitively, the difference is due to the interaction between the thematic relationship between the two arguments, on the one hand, and the functional value of passivization, on the other. This difference can be captured in many other grammatical frameworks, but not in standard varieties of generative grammar. Notice that also that even *resemble* in (3a) appears to have been passivizable in earlier stages of English: in Thomas Starkey's *Dialogue between Cardinal Pole and Thomas Lupset* is found (!): *"…The thing which is resembled to the soul is civil order and politic law, administered by officers and rulers…"* (See Tillyard (2011 [1959]).

relative to the modal). The utterance is not even particularly negative. Rather, it is interpreted as roughly equivalent to the positive request "Will you be my number two?", though the speaker has slightly less hope of his offer being accepted. In this respect, inverted *won't* resembles the kind of expletive negation found in subjunctive contexts in more literary registers of French, e.g., following the subordinating conjunction avant que ('before'), as in (5); see also Newmeyer (1999):

5. a. Avant qu' ils ne soient trop grands…
before that they NEG be too big
'Before they become too old [for something]…

b. Je crains que votre ennemi ne revienne.
I fear that your enemy NEG return
'I think your enemy is coming back.'

By contrast, the *non*-contracted forms of the same utterance behave differently. Example (6a) is not generally interpreted as an invitation: either, it is normally interpreted as a negative question, or else—with appropriate intonation—may be taken as a mild reproach. The sentence in (6b) is considered grammatically unacceptable, for reasons I'll return to in a moment.

6. a. Will you not be my number two?

b. *Will not you be my number two?

These interpretive quirks seem only to apply to modal auxiliaries (can, may, should, will, might): *non*-modal auxiliaries, with BE or HAVE, have the same range of interpretations whether or not the negative is contracted. As illustrated by the examples in (7), inversion adds nothing extra to the semantic force of the auxiliary. At the same time, both of these auxiliaries share with modals the distributional restriction exemplified in (8), that is to say, the full negative morpheme must follow the subject:

7. a. Isn't he past the point of caring/Is he not past the point of caring?

b. Haven't you finished your homework yet/Have you not finished your homework yet?

8. a. *Is not he past the point of caring?

b. *Have not you finished your homework yet?

To this point, I have been using the term 'inverted' to refer to sentences in which the auxiliary element appears as the first clausal constituent. This anachronistic terminology reflects the original Standard Theory analysis of *Yes-No* questions Chomsky (1957), which involved a rule of "SUBJECT-AUX(ILIARY)" INVERSION (SAI), by which the order of the first and second constituents in an underlying structural description was reversed. This is diagrammed in (9):

9. a. DS: The guilty hedgehog will apologize to the hamster.

   b. SD: 1 2 3 4 5

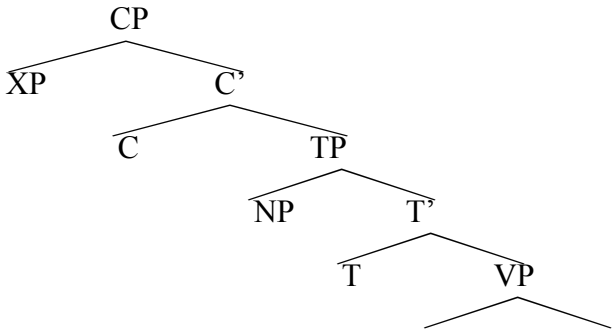
   c. SC: 1 2 3 4 5 ➔ 2 1 3 4 5

   d. SS: Will the guilty hedgehog apologize to the hamster?

See Duffield (2013), for further discussion. The earlier term has been retained, in spite of the fact that the formalism and the analysis has changed radically such that there is no longer any actual reversal of positions involved. During the 1970s, the analysis was also extended to cover both *Yes-No* Questions and *Wh*-questions (constituent questions), and in matrix as well as in embedded clauses. Since that time, the basic analysis has remained essentially unchanged: SAI is understood as involving HEAD-MOVEMENT of 'T(ense)' to C(omp)' —the position occupied by complementizers in embedded clauses—with *wh*-movement being construed as a (cyclical) phrasal movement to the 'Specifier of CP', a position to the left of the C position. These two movement operations are schematized in (10) below, and are taken to be instantiated by the examples in (11).

The movement analysis of questions has remained the centre-piece of generative argumentation and rhetoric, and has inspired a huge number of research experiments in psycholinguistics (notably, Crain & Fodor 1985, Stowe 1986, Philipps 2006) and an equally large number of studies in first and second language acquisition: see, for example, Guasti (1996), Guasti (2004);White (2003), Crain & Nakayama (1987), *inter alia*. In almost every instance, competence-based researchers have unsceptically adopted the assumption that questions, and other marked structures, are derived by maximally general movement rules that apply blindly in all structures in which constituents that normally appear to the right of the subject are displaced to the left periphery of the clause. The following cases, however, cast doubt on this core premise.

10.



11. a. Have you ~~have~~ read the book]?

b. asked [if you have read the book]

c. [when will she ~~will~~ say that ~~when~~] ?

d. asked [when she would say that ~~when~~]

Before considering these cases, it is important to realize that there are many ways of capturing the relationship between declarative and interrogative structures that do not have recourse to movement rules. This is true even of formal theories that assume the existence of autonomous syntactic rules or principles, such as GPSG, HPSG, LFG, Relational Grammar, Role & Reference Grammar. As many commentators have pointed out over the years, just because you can express a grammatical relationship in terms of movement does not prove that syntactic movement is part of a native-speaker's grammatical knowledge, at any level of abstraction. For the purposes of exposition, however, I will assume for now that the movement analysis is correct.

2. Four classes of exception

2.1 ??What rarely do you find there?

Consider first the distribution of negative adverbials (*rarely, scarcely, under no circumstances, no sooner, not only, not infrequently*). The characteristic property of these adverbials is that they trigger SAI[7] whenever they appear clause-initially: this is illustrated by the examples in (12). Klima (1964) was the first to examine these constructions from a generative perspective; in the intervening half-century, they have

[7] Here, I'll ignore the problem of *do*-support (and its exceptions), and focus solely on SAI and wh-movement. See Duffield (2013).

been discussed in numerous papers, including Authier (1992), Henry (1995), Schwartz & Vikner (1996), Hegarty (2005), amongst many others:

12. a. Under no circumstances must you/*you mention this to her.

    b. Not only has he/[*he has]inherited a bunch of average players, he also has to deal with unrealistic expectations from Spurs fans.[8]

    c. On only a few occasions have I /[??I have] spent four full hours in meditation within a twenty-four-hour day (Gattuso 2008).

    d. Never have I/*I have read such a load of nonsense.

    e. No sooner had he/*he had arrived, than she up(ped) and left.

13. a. Indisputably they are/[*are they] my relations; and no less indisputably they live [*do they] live, from a non-Australian perspective, abroad (James, 2000: 2)

    b. Incredibly, he has/*has he solved our problem without leaving his desk.

    c. On a very few occasions, I have/[*have I] corrected the spellings of place-names that clearly resulted from the transcription process… (McLaurin 2009: ix)

As the comparison with the strings in (13) make clear, negative inversion (NI) only applies to a subset of negative expressions: notice especially the minimal contrast between the (c) examples in (12) and (13) above. This much is relatively well-known. What is less reported is that NI exhibits more idiosyncratic restrictions: some adverbials are preferred in inverted, others in non-inverted contexts; also, as discussed in Duffield (in prep.), most of these adverbials are associated only with specific auxiliaries and personal pronouns. In this respect, they are closer to being open-slot idioms than to general expressions; *cf.* Jackendoff (1992); *cf.* Culicover (1999). Somehow these various restrictions must be mentally represented, either lexically or constructionally, so as to trigger inversion in the cases in (12), or else to block it elsewhere.

Setting these additional idiosyncrasies to one side, NI is significant for another reason. From what was outlined above, if NI recruits the same movement mechanisms as *wh*-movement, it might reasonably be expected that in embedded clauses, the adverbial expression should appear in the [Spec, CP] position, to the left of the complementizer,

[8] https://twitter.com/JimmyHart_/status/528951205062782978

and that SAI should be blocked, as it is for Yes-No questions. However, the examples in (14) run counter to both of these expectations:

14. a. She said (that) under no circumstances *should* I ever tell anyone she was…

    b. He's said (that) not only *has* he served extraordinarily—performed extraordinary service to the U.S., Jay Carney said that he has done remarkable work in his role at the CIA.[9]

    c. He claimed (that) rarely could women acquire the second sight needed see the fairies (Sanderson, 51).

The availability of NI in embedded contexts clearly implies that the position of fronted negatives is not the same as that of fronted *wh*-expressions.[10] This point is driven home by the fact that negative inversion and *wh*-movement are compatible with each other: at least, this is true of the sole negative expression under no circumstances, as shown in (15), from Schwartz & Vikner (1996):

15. a. There will be one guy, who, under no circumstances *should* you hit for a boundary…[11]

    b. Now there are places in the world *where under no circumstances should you* drive…

    c. 'There are times *when under no circumstances should you* perform Indian Head Massage…'

    d. …except for this jar, which, under no circumstances *should* you touch

It should be pointed out that all of the attested cases involve relative clauses rather than direct questions, and that the constructions are also extremely rare overall, with *any* WH-UNC combination. A Google string search for (15c) for example, yielded only two hits, as

[9] CNN online: (http://edition.cnn.com/TRANSCRIPTS/1211/09/cnr.07.html). http://joeastrospy.blogspot.jp/2004_04_25_archive.html. Examples with claim are extremely rare. This example is the only non-quotative hit for the string 'claimed that rarely'. See Duffield (2015), for discussion.

[10] This point has generally been accepted in recent generative work concerned with the fine structure of the left periphery. See Rizzi (1997), Rizzi (2002) Authier (1992) accounts for embedded cases such as those, in terms of CP-iteration: it is unclear, however, how his account, which treats the higher of the two CPs as the 'true' CP should explain the data in (16)-(18), in which the auxiliary only raises to the lower position, or unselected clauses more generally.

[11] (a) http://www.bbc.co.uk/dna/606/A50210191 Accessed 11/15/14; (b) ; (c) Neusner (1995: 158)

compared with 1.19 million for '*when should you*', and 349,000 for '*under no circumstances should you.'*

Yet, even if the constructions are unattested, the examples in (16) appear intuitively unexceptionable; significantly, they are more acceptable than most of those in (17)-(19):

16. a. What under no circumstances should you give to a dog?
    b. Where under no circumstances should you place a smoke alarm?
    c. When under no circumstances should you put your head above the parapet?
    d. Who under no circumstances should be allowed to run a conference?

17. a. ??Under no circumstances what should you give to a dog?
    b. ??Under no circumstances where should you place a smoke alarm?
    c. ??Under no circumstances when should you put your head above the parapet?
    d. ??Under no circumstances who should be allowed to run a conference?

18. a. *Under no circumstances should what you give to a dog?
    b. *Under no circumstances should where you place a smoke alarm?
    c. *Under no circumstances should when you put your head above the parapet?
    d. ?Under no circumstances should *who* be allowed to run a conference?

19. a. ??What should under no circumstances you give to a dog?
    b. ??Where should under no circumstances you place a smoke alarm?
    c. ??When should under no circumstances you put your head above the parapet?
    d. Who should under no circumstances be allowed to run a conference?

These examples—especially the contrast between who-*subject* questions in (17-19) raise several interesting theoretical issues, most of which are beyond the scope of this paper. For the present, the most significant point about the examples in (16) is that they appear to show, contrary to Chomsky's assertion above, that direct questions can be formed

without movement of T to C: it is sufficient that the auxiliary appears before the subject, rather than being required to move all the way to C.[12]

2.2 How come you don't say why/Why don't you say how come?

Of course, we knew this already. Or rather, we knew that SAI systematically *fails* to apply to an apparently heterogeneous subset of main clause *wh*-questions, comprising *subject wh*-questions, and *how come* questions, illustrated in (20) and (21), respectively. Here, I'll set aside subject questions in (20), and focus exclusively on how come. See also Collins (1991).

20. a. Who came to see you yesterday?

    b. *Who did come to see you yesterday?[13]

21. a. How come you want to study dentistry?

    b. *How come do you want to study dentistry?

As the section title implies, why and how come are often interchangeable in informal conversation, in main clauses. Closer consideration of their contexts of use, however, suggests that they may be used to ask slightly different questions. *Why don't you like Tom?* presupposes that the person asked the question has at least one specific—perhaps grounded—reason for disliking Tom; by contrast, *how come you don't like Tom*, seems to more be concerned with the general circumstances associated with the addressee's dislike of Tom. (Or there may only be a difference in formality: how come being a more colloquial expression, it is perhaps understood as requiring a less precise answer. It is hard to imagine, for instance, a prosecuting barrister asking a defendant "How come you rang Jane Price on four separate occasions, Mr. Fox." At all events, general discussion in the Blogosphere is confused, at best.)

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[12] There is an alternative explanation for (16), namely, that under no circumstances is treated as a parenthetical expression. While this is initially plausible, it is also *ad hoc*, and fails to explain the unacceptability of the parallel examples in (19). See Duffield (in prep).

[13] The use of unstressed do in assertions was a regular feature of Early Modern English, as has been documented and discussed by many authors: see Ellegård (1953), Roberts (1993), amongst others. In standard adult varieties of Present Day English, *do*-support is not generally found in subject questions. It *does* occur in child language, though: as discussed in Duffield (2013), my middle son currently aged 9 is only gradually emerging from five years of systematically using do in subject questions.

Whatever holds of *main* clauses, there is a significant difference between the two expressions in non-initial positions (that is to say, in embedded contexts), such as those in (22), where why is greatly preferred over how come:[14]

22. a. She didn't say why/?how come she needed $40, and I didn't ask.

    b. When asked, he said he didn't know why/??how come she lived that way.

    c. She left me. I don't know why/??how come.

    d. She asked me when I was coming, but not why/???how come.

Alongside this distributional difference, there is also alleged to be an interpretive contrast between the two expressions. Collins (1991), for example, claims that whereas why can be construed as a so-called "long distance question", how come can only be understood as modifying the main verb. Compare (23a) and (23b), from Conroy & Lidz (2007): in that paper, it is claimed that children treat the first question (with why) as ambiguous, but not the second (with how come):

23. a. Why did Joe think Monster ate his sandwich?

    — Because he saw his plate was empty.

    — Because he was hungry.

    b. How come Joe thought [Monster ate his sandwich]?

    —Because he [John] saw that his plate was empty.

    —#Because he [Monster] was hungry.

But why do these discrepancies exist, and how come (!) they persist (from one generation to the next)? And how do children come to know the difference between the two? If we adopt the standard analysis of generalized *wh*-movement, then we might expect one of two possible developmental outcomes. On the one hand, the absence of SAI might lead the language learner to treat how come as 'base-generated' in a left-peripheral position

[14] A Google string search for didn't say why" yielded 37 pages/346,000 results, compared to 4 pages for didn't say how come, of which only 2 are legitimate examples, while the search for he doesn't know why she vs. he doesn't know how come she yields 336,000 *vs*. 1 (!) example. The great majority of attested cases of embedded how come are found in non-standard varieties, including some Midwestern varieties possibly influenced by German. See also http://forum.wordreference.com/showthread.php?t=2024024

different from that of other *wh*-expressions: adjoined to the main clause, rather than being moved to [Spec, CP]. This would explain—albeit circularly—why how come doesn't trigger SAI. However, as we have just seen, some other regular *wh*-expressions don't require SAI either, and it is unclear how language learners should distinguish these two classes of exception. What speaks against this, in any case, is the fact that embedded examples with how come *are* attested, even if they are of very low frequency.

An alternative possibility—again assuming the operation of a general rule, to which how come is an exception—is that children use the input to induce the fact that how come cannot generally be embedded, and so limit their grammar through the use of INDIRECT NEGATIVE EVIDENCE. But 'cannot generally be embedded' is not the kind of (categorical) rule that generative grammar allows; indeed, it could be argued that it is not a rule at all. Furthermore, the second explanation predicts that children should go through a stage of using SAI with how come before reining it in: this prediction is false, as it turns out. See Part 2 for discussion.

Some generativists have in fact used a version of the second argument to explain why (??how come) many children go through a stage in which they fail to invert the subject in *why* questions, even after they have acquired SAI with other *wh*-expressions. See Labov & Labov (1978; Berk (2003), Thornton (1994); *cf*. Conroy & Lidz (2007). But whichever direction this is viewed from, the apparently arbitrary contrast between what and how come questions raises serious learnability issues for any theory that presupposes a maximally general rule of question-formation. Somehow this difference must be represented so that it can be available in analyzing and producing why and how come questions. Notice that such issues simply do not arise in the same way in usage- or performance-based of language acquisition, where what is acquired is a closer approximation to ambient patterns of usage.

2.3 Why worry?

> *Why worry, there should be laughter after the pain*
> *There should be sunshine after rain*
> *These things have always been the same*
> *So why worry now?*
>
> From Dire Straits, *Why worry?*

This discussion brings us handily to the other two classes of exception, both of which involve *why*-questions. The first is illustrated by the examples in (24) below, which

reveal that—alone among *wh*-expressions—why can be combined with a non-finite verb-phrase to yield a grammatically acceptable question:[15]

24. a. Why worry?/Why stay in Boston?/Why not try again and see what happens?/Why keep on working now that you have won the lottery?

b. *Who forget/*Who spend time with?/*Who talk about linguistics with?

c. *What eat every day to stay healthy?/*What bears find delicious?

d. *When see your parents?/*When take time off?/*When leave home?

e. *Where send your money?/*Where go on holiday?/*Where live well?

f. *How come find problems like this?

Setting this out this contrast as a paradigm is actually a bit misleading, since (why and why not) are able to combine with virtually any type of predicate phrase in discourse to generate a kind of echo-question. Relevant examples are given in (25):

25. a. Why (not) *Wednesday*?!/Why (not) *vitamins*? NP

b. Why *blue*? Why not *red*? AP

c. Why only *possibly*? Why not *probably*? AdvP

d. Why (only) *inside* the building? Why not *outside* as well? PP

e. Why *or*? Why not *and*? Conj

In Standard English, all of the other *wh*-expressions are only able to combine with full (finite or non-finite) clauses, even in informal contexts, and even where an elliptical expression would be fully interpretable. The marginal exception, unsurprisingly perhaps, is *how come*, which is occasionally found with non-clausal complements in non-standard varieties (26a-c):

26. a. 'How come *Wednesday* and not tomorrow?

b. 'How come *blue*?' She put her hands on her hips… (Morris 2012)

c. 'Possibly? How come only *possibly*?'[16]

[15] To my knowledge, the theoretical implications of this contrast were first noted by Tom Roeper: at any rate, it was Tom who first brought it to my attention. See Roeper & de Villiers (1992, (2011)

[16] https://groups.google.com/forum/#!topic/uk.net.news.management/DZkC8BPL7BI[1-25-false]

Notice that in contrast to why, how come never combines directly with not to form a constituent. This inevitably raises the question…*why not* (*how come not)?! The difference is not an arbitrary one, but nor it predicted by the operation of any synchronic grammatical rule. Instead, a significant part of the explanation for the difference between why and how come is given by considering the historical development of these phrases. It is not necessary to go very back in the history of English to realize that how come developed as a fixed expression out of the compositional form how comes/came (plus finite clause), in which the original '*wh*-word' was how, with come functioning as a regular main verb (*cf*. PDE 'come about'), undergoing inversion. This is exemplified in the following examples, taken from works by Charles Dickens and Thomas Hardy, respectively:

27. a. How came he to have fallen asleep, in his clothes, on the sofa in Doctor Manette's consulting-room. (Dickens, *A Tale of Two Cities*)

    b. "Now, my dear Tess, if I did not know that you are very much excited, and very inexperienced, I should say that remark was not very complimentary. *How came* you to wish that if you care for me?" (Hardy, *Tess of the d'Urbervilles*)

At a stroke, this diachronic factor accounts for most of the apparent idiosyncrasies of how come, to wit its resistance to appearing in embedded clauses, its failure to trigger inversion, and its prevalence in non-standard, colloquial varieties, as compared with higher written registers (which tend to be more conservative).[17] The pattern has persisted in the input long after the 'rules' that created it were lost.

The problem for competence-based linguists is that this relatively straightforward explanation is not available to them—nor, by [their] hypotheses, is it available the child acquiring English. Since generativists reject the idea that children learn constructions, or indeed pay much attention to the input beyond Saussurean arbitrariness, there is no principled reason (for them) why a child acquiring English should not treat how come exactly like why (for example, triggering SAI, appearing in sluicing contexts) or—come to that—why other *wh*-expressions are not generalized to non-clausal complements, like why (*cf*. 24a *vs*. 24b-f above). Yet the fact that children in a typical environment learn how to use how come correctly from the outset suggests that the input ('E-language') is

[17] Even its source, how came he , in which the main verb appears to the left of the subject (i.e. SVI, not SAI), is highly conservative: as has been well-documented and analyzed, SVI (and main verb-raising in general) was largely lost at the beginning of the Early Modern English period, Shakespeare's work representing a transition phase. See, for example, Lightfoot (1991; Roberts (1993); Duffield (2013).

more important than generativists generally assume, and that rules are much less general than they would be in an ideal system.

5.4 *Why to go

> *I don't know where*
> *Confused about how as well*
> *Just know that these things will never*
> *Change for us at all.*
>
> From Snow Patrol, *Chasing Cars*

The final exception to generalized *wh*-movement also involves why; here, though, rather than being uniquely available, why is the element that is *excluded* from the paradigm. Arguably, this case is the most interesting since there is no obvious functional, pragmatic or historical explanation for the gap, and nothing—other than the absence of the construction in the input—to prevent a learner from generalizing to this context (unless, that is, learners are in fact extremely conservative). The exception is illustrated by the paradigm in (28) below. It is most neutrally described as follows: in contrast to all other *wh*-expressions, why cannot introduce a non-finite indirect question.

28. a. I wonder/know [who to talk to about this].

    b. She wondered/knew [what to tell him].

    c. She wonders/knows [how (best) to break the news to him].

    d. They wondered/knew [when to speak and when to be silent].

    e. He asked/knew [where to find the exit].

    f. *I asked/knew [why to stop eating kiwi-fruit].

Considered in isolation, the unacceptability of (28f) might seem unremarkable; after all, as we have just seen, how come is also disfavoured in non-initial positions. But here's the thing: why is perfectly acceptable in *finite* indirect questions, such as those in (29):

29. a. I know [why the caged bird sings].

    b. She wonders [why he understands so little of this].

    c. She knows [why Italy has such a dismal tax compliance rate].

    d. They wondered [why the fruit had been forbidden].

e. He asked [why she was looking for the exit].

f. I knew [why I should stop eating kiwi-fruit].

Especially intriguing is the contrast in (30), in which the acceptability of the string but not why varies according to the finiteness of the preceding (antecedent) phrase: the string appears to be fine in (30a), where the understood antecedent clause is finite, yet precisely the same string is unacceptable in (30b), where the antecedent phrase is analyzed as non-finite. In other words, it is non-finiteness as an abstract property that blocks use of the construction, not just particular sequences of words:

30. a. He was told *where* he was to meet Jane, but not *why* [~~he was to meet Jane~~].

b. He was told *when* to meet Jane,

…??but not *why* [~~to meet Jane~~].

…but not *where* [~~to meet Jane~~].

These intuitive judgments closely track the frequency of occurrence of the same strings in Google Books (to take only the most readily available corpus). Table 1 below records the number of hits (in thousands) for different combinations of *know+wh+(he/she/they/to):*

wh-phrase	finite (know+wh+*she*)	finite (know+wh+*he*)	finite (know+wh+*they*)	non-finite (know…to)
who	1, 810	4, 760	3, 830	1, 600
what	8, 990	30, 000	36, 800	75, 200
where	3, 390	9, 910	8, 400	25, 000
when	873	4, 080	3, 960	7, 250
why	2, 930	5, 400	4, 360	92

Table 1. The curious case of "why to" (*n* = thousands of hits)

The quantitative difference is striking.[18] Before looking at this table, one might have supposed that indirect questions with *why* are simply much less frequent across the board, for non-structural reasons. However, the comparison of finite and non-finite contexts rules out this possibility: in fact, in indirect questions, *why+subject pronoun* strings are actually more numerous (on aggregate) than *who+subject* pronoun strings.

[18] These figures overstate the actual distributions of non-finite complements, since they include strings where there is a comma or period between the *wh*-expression and *to* (e.g., 'Why can't I accept that? I want to *know why. To* understand why…'). However, since this applies in some measure to all of the cells in the fourth column, it is a harmless confound: if anything, the skewing would be more pronounced without it.

It doesn't require extensive statistical analysis to see that the patterns in the first three columns are basically identical: there may be approximately double the number of hits for masculine over feminine subject pronouns—presumably reflecting the ego-centric concerns of typical Internet users, but the pattern is broadly identical across the *wh*-expressions. More specifically, in each of the first three columns, there are approximately the same number of *who* and *why* questions, and roughly double the number of *where* questions compared with *why* questions. In all cases, the relative proportions are very similar. By contrast, column 4 displays a completely different distribution: non-finite indirect questions with *where* have the highest incidence, while *why* questions virtually disappear. Comparison of the aggregate finite scores with the corresponding non-finite scores yields a *chi*-squared value of $\chi = nn$, $p < 0.0001$. Even restricting the analysis to a comparison of adjunct *wh*-phrases (*when vs. where vs*. *why*) produces a clearly significant skewing. Statistically speaking, the distribution observed here is less likely to be due to chance than virtually all of the experimental results discussed in Part 2 of the book. There is something here that requires explanation.[19]

Whatever the deeper explanation may be, the most obvious—and most immediately inferrable—grammatical description of the exceptional behaviour of *why* is the one given at the outset, namely, that 'in contrast to all other *wh*-expressions, why cannot introduce a non-finite indirect question.' This raises the question of whether speakers (implicitly) know this negative constraint, and, if so, how this can be represented in a theory that denies the existence of construction-specific rules. If one assumes a maximally general theory of *wh*-movement, then the answer to the first part of the question must be that speakers do know this constraint, since otherwise they should allow for *why* what is allowed for all other intermediate *wh*-expressions. The problem then becomes how to state this constraint without making reference to construction-specific finiteness, especially since—as we saw in section 2.3—*why* can occur with almost any predicate phrase in root contexts, including bare (non-finite) verbs (*Why worry?*); compare again the examples in (24) and (25) above.

[19] For those unimpressed by numbers, it is worth noting that the second most popular set of hits on Google Web for the string "know why to" is a query from a Korean ESL student, asking why this string is not possible. That student receives no satisfactory response:
https://www.englishforums.com/English/WhyToInfinitive/cpgdw/post.htm

To make matters worse, this constraint—if such it is—is peculiar to English: the French, German, and Spanish examples in (31) show that there is no universal ban on *why+non-finite* verb in embedded contexts:

31. a. *Je ne sais pas pourquoi faire* ce test de grand mere dont je n'ai jamais entendu parler, alors que tu peux aller…[20]
I don't know why [you should] do this old wives' test that I have never heard of, when you can simply go…

b. So pflegt es aber fast immer, *ich weiß nicht, warum, zu gehen,* und ich habe diese Erfahrung nicht etwa bei einem oder dem andern…[1776]
It almost always happens that, I don't know why [I should] go, and I have this feeling not just on one or two occasions, but…

c. *No entiendo por que hacer* algo que nadie con un mínimo de compasión haría, se le llama arte.
I don't understand why [anyone would] do something that no-one with the slightest compassion would do, in the name of art.

Thus, one cannot appeal to some innate constraint to block overgeneration. Reluctant as I am to resort to the kinds of rhetorical arguments favored by generativists, it is rather hard to see how a child equipped with a general set of rules to form *wh*-questions would be able to restrict their grammar to create this language-particular 'hole' in the system. By contrast, if rules are epiphenomenal—if children and adult learners acquire a grammatical network on the basis of learning individual constructions, and generalize only where this is supported by positive evidence—then 'holes' or 'gaps' can develop rather easily inside an otherwise regular system.

The following quote by Martin Haspelmath, in a review of Newmeyer (1999), is exactly to the point:

> *If syntax is described as a network of constructions rather than as a set of rules, then constructions showing different frequencies will be entrenched to different degrees, again with consequences for their structural properties (cf. Bybee & Thompson, 1997). Newmeyer [1999] finds it difficult to conceive of syntax in terms of frequency-sensitive constructions:*
> > *"Each time [a] sentence is uttered, do the speaker and hearer really tick off in their mental note pads one more use of each [of the constructions it instantiates]? (p.135)."*

[20] Source: (a) http://www.yabiladi.com/forum/test-grossesse-fait-maison-avec-67-5020607.html; (b) http://books.google.co.jp/books?id=Mjg9AAAAcAAJ; (c) http://www.xatakaciencia.com/otros/video-tirando-aluminio-fundido-en-un-hormiguero;

> *The answer is yes, and the difficulty in conceiving of syntax in this way seems to be due exclusively to the long habit of thinking of syntax in a very different way...' Haspelmath (2000: 242-3).*

In Part 2, I critically examine the evidence for and against the kind of mental tab-keeping that Haspelmath endorses. Notice that though if he is even half-way correct, this implies a qualitatively different relationship between representation and processing from that assumed by most competence-based theorists.

3. Conclusion

In this paper, I have considered four classes of exception to the putatively 'general rules of question-formation that have been fairly uncritically accepted—at least by those sympathetic to generative grammar—for nearly half a century. In these cases, I suggest, the data do "speak for themselves": each paradigmatic gap, discussed in 2.1-2.4, offers a significant challenge to the idea that children acquire grammars consisting of maximally general rules that make no reference to construction-specific properties. These gaps also challenge the notion that end-state grammatical knowledge is insensitive to frequency distributions in the input. At the very least, I contend, problems such as these would seem to turn the tables on what has been termed 'explanatory adequacy'. *Contra* Chomsky (1981, 1985, and subsequent works), the key problem of language acquisition is *not* the logical one of explaining how the child attains a maximally general grammar when faced with impoverished input—the standard Poverty of the Stimulus Argument. On the contrary, the key problem is an empirical one: to explain how a child equipped with UG is able to cut away so precisely at a maximally general system—to carve out the language-particular holes and gaps of the English interrogative system—so as to converge with the ambient patterns in the input; *cf*. Bowerman (1983, (1988), MacWhinney (2000), amongst others.

What should also be clear is that both problems largely evaporate once one gives up the long-cherished idea that GRAMMAR (in the mind of *linguist*) is the same as GRAMMATICAL KNOWLEDGE (in the mind of the language user). Or, as Leonard Cohen says:

> *Forget your perfect offering.*
> *There is a crack in everything:*
> *That's how the light gets in.*
>
> (Leonard Cohen, *Anthem*)

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