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WHY MAKE SENSE OF SILENCE?
THE CLAUSAL SYNTAX OF A REDUCED WHY-QUESTION

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Abstract

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In this paper, I investigate the syntax of a reduced why-question that I call Why-VP; these are clauses like Why take Structure of Japanese? These questions are reduced in a very particular way; they are missing an overt subject and the verb never shows tense marking as is typical in why-questions, such as why was John taking Structure of Japanese? Why-VP has received very little attention in the literature even though they are incredibly frequent in production. Over the course of the last year, several naturally occurring examples drawn together with their discourse context have accumulated, specifically from the New York Times portion of the Gigaword corpus. These were found completely by accident when, as part of the Santa Cruz Ellipsis Group, we began annotating root sluices. Despite the fact that they are reduced, and that they were accidentally captured by a parser as ellipsis, the corpus of naturally occurring examples lead me to conclude that these really do not fit the standard profile of ellipsis as they really do not rely on an antecedent. As such, I argue that Why-VP are free-standing and intact clauses, best understood as infinitival and as having a covert modal, thus contributing to our understanding of the clause-building mechanisms available in language which make reduced clauses such as Why-VP possible. I present evidence that why in Why-VP is best analyzed as a head, which selects for the covert modal hosted by a silent infinitival T, which in turn hosts the structural subject and also selects the v/VP; so while Why-VP questions seem reduced, they actually carry elements typical of the extended projection.
Dedication

For my grandmother, Maxine Rubin, a lover of language.
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I can’t believe that I had the great privilege of stumbling upon Linguistics at UC Santa Cruz. The community of professors and students contributes to an academic climate that is both nurturing and challenging, and I have tried to take advantage of every opportunity such a community provides because I know places as special as this are far and few between.

Starting my journey here as an undergraduate student and then slowly (and somehow quickly) making the transition to a graduate student came with the daunting realization that I was on a path that led to something much larger than a degree; I was somehow unknowingly inducted into a dynamic academic field where the work of a Master’s student has the potential to be taken seriously and to contribute in a real way.

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1 Introduction

This paper examines a reduced *why*-interrogative for which I will use the descriptive term *Why-VP*. Why-VP constructions are properly described as reduced because they show neither overt tense marking nor an overt subject. Consider the basic example in (1).

(1) Why take Structure of Japanese?

Structures such as (1) are incredibly frequent in production, but little work has been done in terms of analyzing their internal structure. The elements which are apparently missing, namely, the subject and tense marking are not overtly marked, yet they are interpretable without the presence of any preceding discourse that would provide an antecedent. The subject is interpreted as a generic second person pronoun *you* or something like a quasi-universal, *anyone*. The tense is not grounded in past or present, but is interpreted as a modal like deontic *should* or counterfactual *would*, both of which are broadly characterized as necessity modals by Hacquard (2011). At the core of my proposal is that these elements, the subject and the modal, are present in the syntax rather than pragmatically implicit, and they interact with each other in interesting and complicated ways.

Insofar as work has been done on the internal structure of Why-VP, it has been analyzed as the result of an ellipsis procedure. In particular, Yoshida et al. (2015) argue that the missing subject and tense are recoverable based on syntactic parallelism with an antecedent. Given that (1) occurs with no preceding linguistic discourse, we should already be wary of such an analysis.

Why-VP has also been called “matrix infinitival why-questions” in Bhatt (1998), “tenseless clauses” in Collins (1991), and a “bare infinitive construction” in Duffley & Enns (1996). Collins abstains from making any claims about its syntax, and presents a Why-VP example only to serve as a contrast to *how come*, which does not occur with so-called *tenseless clauses*. Bhatt (1998) and Duffley & Enns (1996) observe (independently) that Why-VP can be rhetorical, thus focusing on its pragmatic uses rather than its syntax.
What I aim to contribute here is a careful characterization of the extended clausal projection consistent with its observed interpretation. In my investigation, I draw on a corpus of 252 naturally occurring examples of Why-VP from the New York Times portion of the Gigaword corpus (Graff and Cieri (2003)). Looking at naturally occurring uses of Why-VP and being able to see how it interacts with its surrounding discourse context reveals immediately that the missing elements are not dependent on an antecedent in the sense suggested by Yoshida et al (2015). The corpus also reveals that while Why-VP can be used rhetorically, it need not necessarily be so. Why-VP can express genuine information-seeking questions, contrary to Bhatt (1998) and Duffley & Enns (1996).

Why-VP should be thought of as an autonomous why-question, which is free-standing and intact. Thus the ways of building clauses in English must allow such structures. The real interest of the construction comes from what there is to learn from it about the range of clause-building mechanisms (in English and therefore in general). In this paper, I will propose (i) that why in (1) is a head, (ii) which selects the silent infinitival T that provides the modal interpretation, as argued to be present in all wh-infinitivals by Bhatt (1999), and (iii) that this T provides the licensing environment for the subject to be pro, whose interpretation interacts in interesting ways with the covert modal. We will see also that this covert modal interacts in complicated ways with aspectual operators, revealing that covert modals are constrained in ways that their finite and overt counterparts are not, thus contributing to our understanding of the distribution and semantic composition of covert modals.

It is true that Why-VP is missing the to characteristic of infinitival clauses, but we will see that analyzing them as infinitival in spite of this captures many of the salient analogies in interpretation with embedded wh-infinitivals, patterns which would remain unaccounted for under an account that tries to maintain that Why-VP is elliptical or only has the structure that we hear.
2 Crucial Characteristics

There are at least two kinds of Why-VP. There is the type presented in (1), where there is no negation, and another in which negation appears immediately after why. The different kinds are illuminated in (2):

(2) a. Why take your dog on a walk in the rain?
   b. Why not take your dog on a walk on a beautiful day?

I refer to both (2a) and (2b) as Why-VP given that they generally follow the same distributional patterns. I refer to (2b) as Why-not-VP if it becomes necessary to distinguish between the two. While it is true that both (2a) and (2b) share basically the same grammatical distribution, they seem to serve different pragmatic functions. In (2a), the speaker appears to suggest that there is no conceivable reason that you should take your dog on a walk (in the rain), while (2b) seems to suggest exactly the opposite: there is no conceivable reason that you should not take your dog on a walk.

Why-VP has been previously taken to be necessarily rhetorical (Bhatt 1998; Duffley & Enns 1996). But some corpus data presented in (3) and (4) would suggest otherwise:

(3) “We really need to get measured yearly, because our bodies shift around so much,” Mitro said.
   Why worry about getting the right-size bra?
   One reason is health-related.  

(4) “I’ve never had a boss do that.” Nor does the typical CEO work standing up as Fish does at a chest-high desk.
   Why stand?
   “It’s about energy,” said the 6-foot, 2-inch, 180-pound Fish, as he excused himself.

In (3), the speaker does not seem to be indirectly conveying “Don’t worry about getting the right-size bra,” or “Don’t stand” in (4) as Bhatt (1998) predicts. The pre-
ceding discourse and continuations of the discourse also do not seem to be suggesting that the answer is known by the participants in the discourse. While Why-VP can be rhetorical, it seems that it need not be. However, whether or not a specific speaker-bias is always encoded remains to be seen. The pragmatic status of Why-VP is interesting, but it will not be central to my investigation of the phenomenon.

Why-VP structures are crucially and stubbornly root questions. They cannot be embedded:

(5) a. *(I (don't) know why take Structure of Japanese.
   b. *(I wonder why take Structure of Japanese.
   c. *(I decided why take Structure of Japanese.
   d. *(I figured out why take Structure of Japanese.

Note that the predicates above routinely embed interrogative complements:

(6) a. I (don’t) know when/where to take Structure of Japanese.
   b. I wonder when/where to take Structure of Japanese.
   c. I decided what/who to take to the dance.
   d. I figured out who to take Structure of Japanese with.

This property is surprising, given that Why-VP are also wh-questions; it is not immediately clear why this restriction in (5) would exist. I will argue that we might be able to understand this in terms of selection, once we make the move of analyzing Why-VP as lacking a C-layer. More on this in section 7.1.

Broadly, Why-VP is a why-question that is reduced in a very particular way. Namely, both the subject and agreement/tense marking on the verb are phonologically absent. In a non-reduced version of Why-VP questions, both the subject and tense would have to be overtly present. In Why-VP The absence of the subject and the lack of tense marking on the verb are dependent on one another. Adding the subject without tense marking or the tense marking without the subject will result in ungrammaticality:

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1Why-infinitivals with an overt infinitival to also cannot be embedded, e.g., *(I don’t know why to take Structure of Japanese. More on this in section 7.2.
(7)  
   a. *Why (not) he/you/I take Structure of Japanese?
   b. *Why (not) takes/took Structure of Japanese?
   c. *Why (not) should/would take Structure of Japanese?

   The patterns above are expected provided that we adopt certain assumptions presented in the Minimalist Framework in which syntactic dependencies are established via agree. For brevity’s sake, I will discuss only enough of the mechanisms to clarify how deep the connection is between T and the subject within this framework and to further argue that that connection will lead us to expect Why-VP as a possibility. In English, T must agree with the DP it most locally c-commands in order to render its uninterpretable person and number features phonologically interpretable by derivation’s end (Chomsky (2001), among much other work). Thus, given that, for example, (7a) exhibits an overt subject with various person features, the verb must reflect agreement between T and the DP, such that the bare form of the verb is ruled out. In (7b), agreement on T cannot be realized without the overt DP that triggers the agreement. What this means for Why-VP is that if there is something defective about T, then we expect there to be something defective about the subject. But that interaction in turn must take place only in the presence of why.

   The bare VP with a crucially silent subject is specific to and dependent on Why and Why-not in English. No other Wh-phrase will satisfy the conditions under which a bare VP is permitted.

(8)  
   a. *Where do homework after class?
   b. *Who see _ in the evenings?
   c. *What do _ after class?
   d. *How do homework after class?²
   e. *When do homework after class?
   f. *Which one choose _ ?
   g. *Who _ invite him?

²Duffley and Enns (1996) note somewhat old corpus data that suggests at one point how-VP, as in: How deal with the man of today, might have been in more regular use, but was still used far less than Why-VP.
My investigation of these structures should reveal more than one particularity of *why* and what in our syntactic or semantic theory allows us to understand *why why* (as opposed to any other *Wh*-phrase) licenses such structures. It is important to note that (8h) and (8i) would be particularly surprising if we thought that the bare VP was licensed exclusively on the basis of the semantics of *why*, which asks for a reason, as do *how come* and *for what reason*.

As has already been alluded to, *Why*-VP is crucially modal. *Why*-VP uttered out of the blue, as in (1) *Why take Structure of Japanese*, has no accurate paraphrase in terms of past or present. Example (1) cannot be taken to mean *why did you take Structure of Japanese*, nor can it mean *why do you take Structure of Japanese*. Intuitively, it really means *why should one take Structure of Japanese*. This particular example was taken from a poster in the UC Santa Cruz Linguistics department. The poster goes on to list the reasons a student might enroll in this class. In this particular context, the most salient interpretation of the covert modal is closest to the overt modal *should*. There are other contexts, however, where the modal interpretation in *Why*-VP is closer to that of *would*. Consider:

(9) Context: A student goes to the undergraduate advisor and says, “I’m thinking about enrolling in Structure of Japanese next quarter, but I’m afraid it’s going to be too much work”. The advisor says, “Well, I see here that you’ve already completed all five of the electives you need to graduate, so *why take Structure of Japanese?*”

In the exchange above, *would* emerges as the more plausible paraphrase of the modal force, something which is not the case for (1). Interpreting the modal as *should* in (9) is certainly possible and felicitous, but seems not to reflect the meaning initially accessed. The difference between *should* and *would* here is subtle and the
context certainly plays a role in favoring one interpretation over the other. My goal in this paper is not to provide an account of the pragmatic factors which favor one interpretation or the other of the modal (though that should certainly be a goal in future work on this project). But I will try to say something about the range of interpretations in principle available in Why-VP structures, drawing especially on the analysis of modality in infinitival clauses presented in Bhatt (1999).

Before pressing on, it is worth noting that there are certain other kinds of constructions which might be misidentified as Why-VP. In particular, there is a metalinguistic or quotative use of a fragment why-question, in which why and a VP with tense is repeated from a previous context:

(10) Speaker A: John tossed a banana at the wall?

Speaker B: Why “tossed”? Why not “chucked”?

The hallmarks of ellipsis are (i) the requirement that there be an antecedent phrase for the elidable material and (ii) the existence of connectivity effects linking the form of the antecedent with the (implicit) form of the ellipsis site. And indeed it is clear in the example above that the effect of Speaker B’s utterance cannot be characterized in the same terms as those which have been discussed so far. There is no modal flavor such that the interpretation amounts to why would he toss a banana against the wall. Instead (10B) is interpreted as why did you say “tossed” as opposed to “chucked”? Crucially, Speaker B’s utterance cannot be uttered out of the blue or in a discourse-initial position. That is, there needs to be preceding linguistic material to license (10B). This is not the case for Why-VP as demonstrated in (1).

In what follows, I argue that the attested examples really cannot be the result of ellipsis.

3 Against Ellipsis

The only existing account of Why-VP analyzes them in terms of Ellipsis. Yoshida et al. (2015) accommodate Why-VP as a special case in their account of Why-Stripping, argued in turn to be a type of clausal ellipsis parallel to that which was developed for
Sluicing (Merchant (2001)), and later for Fragment Answers (Merchant (2005)). Under this view, Why-VP reflects the operation of an ellipsis process which eliminates the subject and tense because they are recoverable on the basis of an antecedent TP. The VP survives because it is focused and has therefore been raised out of the ellipsis-site. In what follows, I argue that ellipsis cannot account for the facts observed in Why-VP.

The discovery of Why-VP in the NYT portion of the Gigaword corpus made it immediately clear that they should not be identified as ellipsis. The corpus contains (at least) 252 instances of Why-VP, which were caught by the parser as potential root sluices. This corpus has mainly been used by a team of undergraduate and graduate student researchers at UC Santa Cruz who annotate it for sluices. Annotators are trained to find corresponding antecedents for each sluice in a given article. This is generally a simple task, in which the antecedent is immediately clear, but root sluices in particular proved to be on average, more problematic. Once annotators encountered Why-VP examples, however, which sometimes slipped into their directory of sluices to annotate, it was impossible to identify an antecedent. To look for an antecedent for Why-VP essentially means to find the missing subject, which is not straightforward for Why-VP since the subject need not be identified with an entity explicitly referenced in the previous discourse. It can be a generic or arbitrary entity. The following are typical Why-VP examples drawn together with their discourse context:

(11) Context: Friends are usually the first ears to hear about an affair, said Fred Mayfield, a marriage and family therapist in Overland Park. “But I tell people to not tell their friends,” he said. “Why take the chance that your spouse will hear about it from someone else?”

(12) Context: “Rents are lower and floor space is easier to obtain than ever before,” said Michiko Shimizu, president of SAI, a marketing consulting firm. “Their cost performance is much better, so why not open a few more shops?”
In some abstract sense, the subject of Why-VP in (11) is related to the mention of people in the previous context. The speaker is addressing those same people in the Why-VP question. However, it would certainly be odd to identify people to not tell their friends as the antecedent for Why-VP. This would imply necessary parallelism between people in relation to the VP to not to tell their friends and the apparent instance of people covert in Why-VP – that somehow the event denoted in Why-VP stands in focus contrast to the action of not to tell..., which does not seem correct on empirical grounds. These two VPs are not in opposition in the context of some relevant set such that the VP in Why-VP is focused as an alternative to not tell their friends. This is what we would expect if we adopted that the VP was the remnant of focus movement.

Further, it is probably not right to think of the subject in Why-VP as a deleted instance of people, given that the instance of your in (11) implies that is being bound by a generic you as the subject of Why-VP. If the subject were actually syntactically re-used from the previous discourse context, we’d expect that possessive pronoun to be their. It is true that for Why-VP, the previous context often establishes a discourse topic, which usually serves as the addressee for Why-VP, but the syntactic link between Why-VP and the preceding material is not there. Put another way, there is more of a pragmatic link between the subject of Why-VP and the previous discourse, rather than a syntactic dependency.

Similarly, in (12) the subject seems pragmatically related to their in the clause immediately before the instance of Why-VP. But there is surely no way that Why-VP can be syntactically derived from their cost performance is much better as an antecedent. The task of identifying an antecedent is not feasible, nor necessary to the well-formedness of Why-VP.

For comparison, the relationship between a sluice and its antecedent is generally straight-forward, with few exceptions. Consider the following:

(13) “They are not participating in the market,” said the banker, who spoke on condition of anonymity.

“But we cannot say why <they are not participating in the market>.”
Above, it is clear that the embedded why-slue is referring to the proposition, they are not participating in the market, in a way that completely re-uses the syntactic material from the previous discourse context.

Taking it a step further, Why-VP often and freely occurs with no preceding linguistic context at all. The example in (14a) was found on a poster in the Linguistics Department at UC Santa Cruz and (14b) was found on a poster in a health clinic:

(14)  
  a. Why take Structure of Japanese?  
  b. Why get vaccinated?

In each case above the VP is interpreted as deontic, comparable to should, and the subject is interpreted as impersonal or generic you. This pattern in interpretation is consistent with or without preceding discourse context, as has been shown throughout this section. The autonomy of the missing elements above further supports the argument that these are not derived via ellipsis, there is no deletion under identity. The interpretation of the silent elements is restricted and consistent, which allows them to be interpretable without an antecedent.

It is clear that the examples cited from the corpus and those which occur out of the blue would certainly already initially pose a serious issue for an analysis of these as ellipsis, given that Why-VP structures really do not rely on an antecedent. Yet, in what follows I argue that even when there seems to be an antecedent for Why-VP, it still should not be analyzed as ellipsis, such that all instances of Why-VP function as free-standing and intact clauses.

3.1 Apparent Antecedents for Why-VP

The Why-Stripping analysis may well be correct for the cases it considers, but it clearly cannot extend to the generality of Why-VP cases. One of the most striking discoveries to emerge from the Gigaword corpus was the autonomy with which Why-VP operates.

Yoshida et al. (2015) make abundant use of connectivity effects to argue that Why-XP fragments are indeed an instance of clausal (TP) ellipsis. Specifically they
propose that *why* is base generated in spec-CP, above a focus position to which the non-wh-remnant is ultimately raised. Everything below the focus position that hosts the non-wh remnant is elided, or reduced to silence. Their analysis primarily draws on examples of the type Why-DP. Their proposal is schematized in (15):

(15) Speaker A: John is eating natto.

Speaker B: [CP Why [FocP natto1 [TP John is eating natto1]]]?

In (15), the material that is elided (crossed out) is recoverable based on the antecedent provided by Speaker A, permitting the utterance to simply be read as *why natto*? Following Pesetsky (1997), Yoshida et al. adopt a semantic view of the identity condition that warrants clausal ellipsis. They state the following:

*Recoverability* (Pesetsky 1997: 342)

A syntactic unit with semantic content must be pronounced unless it has a sufficiently local antecedent.

The above is essentially an earlier variant of the semantic condition on clausal ellipsis proposed for Sluicing in Merchant (2001), which requires *e-givenness* between an elided clause and its antecedent such that the two mutually entail one another, ensuring that no semantic information is lost between the antecedent and the ellipsis site.

Yoshida et al. argue that in (15), *natto* is focus marked (F-marked), which in English is marked intonationally. If *natto* is trapped within the TP ultimately destined to be elided, no such intonational marking is possible. In Speaker A’s utterance, *natto* is not focused, but in Speaker B’s utterance it is. For Yoshida et al., Focus either introduces new information or contrasts with information provided in the immediate discourse context. For example (15) likely has the effect of asking *why natto* and not some other food? Speaker B’s utterance then contains a focused phrase, which must escape the ellipsis site if we adopt the conventional view that only Given material may be elided.

The operation in (15) is meant to be generalized to any syntactic constituent (below TP, presumably) that may appear with *why*, including AP, PP, and VP, none of
which are discussed in any particular detail. The Why-DP sequence in (15) is used as a proxy throughout the paper for the other possible kinds of Why-XP sequences. An illustration of the general Why-Stripping analysis for Why-VP is presented in (16) below:

(16)  
A: Richard is shopping at New Leaf.  
   B: [CP Why [FocP shop at New Leaf [ TP Richard is _ VP ] ] ] ?

Under this view, the tense and the subject in Why-VP are recoverable based on the presence of an antecedent. However, Why-VP is not dependent on the apparent antecedent in (16A) in the same way that Why natto in (15B) is dependent on its antecedent in (15A). Put differently, the silent elements in Why-VP seem to be autonomous of discourse context in a way that elided material is not. For example, in (16B) the subject of shop is not obligatorily interpreted as Richard, nor is the progressive be preserved in the interpretation of Why-VP. A possible reading is paraphrased in (17):

(17)  Why shop at New Leaf? (== Why would anyone shop at New Leaf?)

It is possible and sometimes even preferred for the subject to be interpreted as impersonal with universal force, rather than have the specific referent (“Richard”) provided in an apparent antecedent. The provided present tense in the apparent antecedent is discarded in favor of a modal interpretation akin to would in this context. The elements that are apparently missing in Why-VP are not reliant on corresponding syntactic material in an antecedent to supply their meaning.

Given that the interpretation in (17) is not restricted in interpretation to the elements of an apparent antecedent, one might wonder whether this is a permissible mismatch between an antecedent and its corresponding ellipsis site, which are certainly attested. For example, in Sluicing it is possible that what is non-modal in the antecedent will be interpreted as modal in the ellipsis site. This can be seen in the naturally occurring examples in (18) and (19) below:

(18)  Antecedent: The contract specified that [blocks of text on the controllers’ screens be movable]
But did not say how blocks of text on controllers screens MODAL be moveable.

(19) Antecedent: The end for that regime is in sight.

We just don’t know when the end for that regime MODAL be.

In both (18) and (19) a present tense T is interpreted as a future-oriented modal like will or would in the ellipsis site. Mismatches are tolerated to the extent that they abide by the generally accepted semantic condition illustrated in Merchant (2001) that the antecedent and ellipsis mutually entail one another. However, semantic identity does not seem to be wholly sufficient in deriving the identity condition in ellipsis and recent attempts have been made to add a syntactic requirement on identity (Chung (2006); Chung (2013); Merchant (2013); Rudin (2018)).

Rudin (2018), in particular, argues that the identity calculation between antecedents and ellipsis sites is restricted to the eventive core, vP. This accounts for the many variations that occur above vP between antecedents and ellipsis sites, for example mismatches at T are predicted and permissible. Crucially for our purposes, though, Rudin’s account puts external arguments, which originate in vP, in the domain of the identity calculation; the blatant disregard of the corresponding external argument from (16A), Richard in favor of anyone in (16B) would be problematic for an account that analyzes Why-VP as ellipsis, even in an identity condition flexible enough to permit mismatches.

An interim characterization at this point is this: there is a salient autonomy of the missing elements in Why-VP. The subject and T easily default to interpretations, allowing them to be interpreted without antecedents. At T, the modal is generally vague or ambiguous between certain circumstantial modals should or would. The subject can be impersonal involving generic (anyone) or in some cases episodic (someone) interpretations, even when there would be a corresponding specific external argument in an identical vP as, (16B) shows.
3.2 Evidence Against VP-Fronting

Here, I argue that the VP in Why-VP should not be analyzed as fronted since it does not ameliorate islands nor partake in intermediate reconstruction. Consider (20):

(20) A: John\textsubscript{1} says Bill\textsubscript{2} criticized all the members in the team.

B: Why CRITICIZE (EVEN) HIMSELF\textsubscript{*1/ok2} when there is someone else to criticize?

[Yoshida et al. (2015:55)]

Under the ellipsis analysis it will be understood as in (21):

(21) Why [VP criticize (even) himself] John\textsubscript{1} says Bill\textsubscript{2} past [VP ]

In (20), as in (21) the reflexive inside VP may not be bound by the matrix subject John, even though the VP which contains it, by hypothesis will transit through the specifier of the CP complement to say, a position in which the reflexive it contains will be commanded by the matrix subject John. An exactly analogous restriction holds (as was shown in Huang (1993)) of VP-fronting in the absence of ellipsis.

(22) *Criticize himself\textsubscript{j} John\textsubscript{j} said Donald wouldn’t.

If this failure is an effect of movement, one might conclude that (20B) also involves VP Preposing. But there is no need for such elaboration.

The extent to which Yoshida et al. actually consider Why-VP as a variant of (15B), explicitly schematized in (16B) and (21) is limited, though they have a short paragraph in which Why-VP is used to provide evidence that the XP remnant does in fact raise and engage in leftward movement. This evidence comes from the observation that Why-VP bears the same restriction on reconstruction that is reminiscent of one that holds of VP-Fronting as seen in (20).

Namely, in VP-Fronting, the fronted VP which contains an anaphor cannot be bound in the intermediate CP position by the subject in the matrix clause of a bi-clausal structure. This is represented in (20). In (20B) himself cannot reference John in the matrix clause. Yoshida et al. compare this to a Why-DP sequence in which this restriction on reconstruction does not hold. This is shown in (23):
(23) A: John₁ says Bill₂ sold a lot of pictures.
   B: Why (even) pictures of himself₁/₂?  
   [Yoshida et al. (2015: 56)]

This indicates to Yoshida et al. that Why-DP is not useful in diagnosing raising since it does not show the kind of ban on reconstruction that Why-VP shows, which is exactly the ban that shows up in VP-Fronting, argued to be a case of leftward movement (raising).

This kind of restriction on reconstruction is explained if we assume that the VP in Why-VP does not move. Conflicting evidence that would suggest there is no movement of the VP-remnant in Why-VP comes from the fact that Why-VP does not ameliorate islands like Sluicing and Why-Stripping. In example (24), it is shown (following Yoshida et al.) that Why-DP does in fact ameliorate islands:

(24) A: They want to hire someone who speaks a Balkan language.
    B: Why a Balkan language?

(24B) is interpreted as Why do they want to hire someone who speaks a Balkan language? It does not mean Why does someone speak a Balkan language? However, in Why-VP, the interpretation is so restricted and the interpretation which would require movement out of the island is not available:

(25) A: They hired someone who wrote a paper about a Balkan language.
    B: Why write a paper about a Balkan language?
    C: *Why write a paper about a Balkan language did they hire someone who did.

In the exchange above, the only possible interpretation of (25B) is Why would someone write a paper about a Balkan language? An interpretation in which the island is ameliorated is impossible: Why would they hire someone who wrote a paper about a Balkan language? If Why-VP is an autonomous construction and is not dependent on a discourse antecedent to supply its meaning then we expect the result in both (20) and (25). There is no syntactic structure that the VP raises through, so there is no intermediate scope position in (20) from which the VP could possibly reconstruct.
Further, there is no island out of which the VP remnant is raising so we would not expect the meaning of the VP to include the structure outside of the island domain, i.e. the relative clause. The ‘correlate’ in (20A) and (25A), then is an illusion; it is by pure coincidence that the VPs match, it is not by necessity.

3.3 Weir’s Amendment

The Yoshida et al. analysis then does not seem to accurately represent the facts in Why-VP. Contrary to their example in (20), the VP does not seem to raise. If it doesn’t raise then we can unify both the non-intermediate scope reconstruction and the island facts under an analysis in which the VP is not generated via clausal ellipsis. Further, the crucially missing elements in Why-VP, the subject and tense need not, and in fact do not obtain in general their meaning from parallelism to an antecedent.

A revision to the Yoshida et al. analysis was proposed in Weir (2014), who argues that FocP, which would host the VP remnant in its specifier, selects VoiceP rather than TP and that VoiceP is the target of deletion rather than TP.

Following Hacquard (2006), Weir assumes that circumstantial modality and deontic modality are generated within vP, presumably below Tense and Aspect. He notes examples in which the context licenses circumstantial interpretations which are preserved in Why-Stripping and where epistemic modality is present in the previous context, but not interpreted in Why-Stripping. I provide the deontic case in (26a), the circumstantial in (26b), and the epistemic in (26c):

(26)  a. I understand why John can (/is allowed to) access the guest account.
       Why the superuser account, though?

b. I understand why nuclear fission can produce heat.
       Why light, though?

c. [Detectives’ conference – debating possible hypotheses]
       I understand why Salander might be in Stockholm (a witness saw someone answering to her description).
       ??Why in Oslo, though? (OK: ‘why might Salander be in Oslo?’)
Weir addresses this issue by positing that no T layer exists in Why-Stripping, which means epistemic modals that scope above T are also eliminated, therefore predicting the contrasts above. However, the claim that epistemic modals always scope above T is strongly disputed by Rullmann and Matthewson (in press). If epistemics can scope below T, then this particular argument that there is no T layer in Why-Stripping is weakened.

However, an analysis like Weir’s would have the advantage of narrowing the possibility space for the modal interpretation, restricting it to root modals, which seems to be a step in the right direction. Note that in Why-VP preserving an epistemic modal interpretation is impossible:

\[(27)\]
\[A: \text{He might introduce Jenny to his parents next week.}\]
\[B: \text{Why introduce your girlfriend to your parents so early in the relationship?}\]

The modal in Why-VP is most saliently interpreted as \textit{would} in (27) above, which is not epistemic. Thus, Weir’s amendment comes closer to understanding the interpretive properties of Why-VP, but still inherits many of the same issues discussed so far for Yoshida et al. (2015) since it’s analyzed as ellipsis.

Additionally, the ability interpretation of \textit{can} in (26a) and (26b) suggests that Why-stripping fragments permit a wider range of modal interpretations than are observed in Why-VP, as Why-VP is never interpreted as \textit{can}. We will see in section 7.2 that we can narrow the availability of particular modal interpretations even further in adopting an analysis which treats Why-VP as having the covert modal found in infinitival clauses.

Weir’s observation, however, does contribute the interesting conclusion that Why-VP and other kinds of truncated Why-XP questions are parallel in never being interpreted as epistemic. Canonical Why-questions do not seem to maintain such a restriction. However, we should leave an investigation of such parallels for future work.

The takeaway here should be that several characteristics of Why-VP cannot be
captured by an account that treats such structures as ellipsis. Namely, when naturally occurring, these seem to never have a VP correlate, and even in contexts in which we generate Why-VP as having a correlate, it still operates independent of such syntactic parallelism, optionally disregarding the provided subject and necessarily interpreted as modal no matter the tense marking in the purported correlate. For these reasons, I put aside an analysis that treats Why-VP as ellipsis in favor of viewing them as free-standing and intact Why-questions.

4 Questions

To the extent that Why-VP has been studied, it has been placed within the framework of ellipsis; namely, Why-Stripping (Yoshida et al. (2015)). However, there are compelling reasons to reject that Why-VP is the result of clausal ellipsis. The elements in Why-VP that are apparently missing (the subject and tense) can default to very particular interpretations, in ways that are not at all dependent on an antecedent. Given that these elements exhibit semantic autonomy, we might wonder whether they also exhibit syntactic autonomy? Put another way, is there evidence that there is structure between Why and VP? How is the structure composed in such a way as to license its independence, both syntactically and semantically?

If it were the case that why were simply an adverbial adjoined to the VP, we would expect that no syntactically active subject should exist and that there should be no A-position which would host the subject in Why-VP.

If there was not a structural subject in Why-VP, we would expect there to be no binding effects involving the subject, we would expect not to see grammatically hosted control structures in which the subject acted as the controller, we would not expect raising of objects to subject position under passive, and we would not expect to see quantifier float. Conversely, if there is a structural subject in Why-VP, we predict the opposite array of effects – we should see binding by the subject, we should see control, passive, and quantifier float.

In the following section I provide evidence that these effects are in fact attested. Evidence from binding and raising suggests there is an A-position in Why-VP which
acts as a landing site for the structural subject, which from there, participates in binding dependencies.

5  Evidence for an A-position

5.1  Binding

Syntactic binding involves anaphors and pronouns in a given clause. For the purposes of this section, we are only concerned with Principle A, which we will understand in the simplified form seen in (28):

(28) Principle A: an anaphor must be bound within the minimal clause that contains it,

• C-commanded and coindexed with a pronoun or R-expression,

• Clause-bounded.

There are at least two kinds of anaphors that are restricted by Principle A: reflexives and reciprocals. There is evidence that both may occur in Why-VP constructions. Since Principle A is evidently satisfied in such configurations, we must conclude that Why-VP structures contain an appropriate local binder – one which c-commands the object anaphors we will soon observe.

5.1.1  Reflexives

The binding properties of the silent subject of Why-VP constructions raise a number of interesting and difficult questions which will be addressed in section 7.3. For now, we merely want to demonstrate that anaphors normally subject to condition A appear freely in Why-VP. If this is the case, we should conclude that there is a binder in such structures, a silent one that serves as an appropriate antecedent for the anaphor. Here are the relevant examples:

(29) Context: Macdonald had no ill effects from two months of radiation and six months of chemotherapy. Many patients don’t. But he still hasn’t looked at his scars.
I figure, a professional examines me at least once a month, why make myself unhappy? NYT 10771

(30) Context: We prefer the status quo, he said. “We prefer to stay single.”
Why get engaged if engagement is equivalent to becoming a local government and making ourselves slaves? NYT 4714

(31) Context: Willingness to be open about such matters can be viewed as signs of confidence, self-assurance, honesty, and self-insight.
Why deny yourself the opportunity to demonstrate these characteristics during the hiring process? NYT 86225

(32) Context: What’s so hard to get about Hillary choosing New York over Washington? The air is fresher. Her New York house, while grand, is almost cozy next to the White House.
Why not excuse herself early? NYT 91134

(33) Context: Why subject himself to listening to Shawn Michaels stand over him saying, “As far as Mike Tyson is concerned, you do anything to Shawn Michaels, I’ll knock your teeth out ... and by the look of things, you can’t afford it?”
Why subject himself to Stuttering John? NYT 26671

(34) Context: In fact, my deprived guy went on just one family vacation during his childhood. That’s it. One trip in 18 years.
It’s understandable if money had been tight, but they had the resources, so why deny themselves?

In general, Principle A must be upheld in order for anaphors to be properly licensed. Clearly, there is no overt DP that could possibly serve as a binder of the anaphor in its clause, given that there is no overt subject in Why-VP. Yet, these constructions are grammatical and well attested.

https://www.forbes.com/sites/learnvest/2012/11/30/im-a-spender-my-husbands-a-saver-how-we-make-it-work/#5ca936ff43a3
However, the examples above only imply the presence of a structural subject serving as the binder of the anaphor; there is a possible confound since there are certain constructions involving reflexive anaphors, that if all reflexives are subject to Principle A as defined informally in (28), do not seem to obey Principle A, at least in its most traditional sense (Kuno (1987); Pollard & Sag (1992); Reinhart & Reuland (1993); Charnavel and Zlogar (2016))

(35) a. Bill₁ said that [the rain had damaged pictures of himself₁]. (Pollard & Sag (1992))
b. In her₁ opinion, physicists like herself₁ are rare. (Kuno (1987))
c. Max₁ boasted that [the queen invited Lucie and himself₁ for a drink]. (Reinhart & Reuland (1993))

In these cases the matrix clause subject does not c-command the anaphor, and in (a) and (c), the anaphor appears inside an embedded clause. These are so-called logophoric uses of reflexive pronouns – first identified by Pollard and Sag (1992) and by Reinhart and Reuland (1993). Charnavel & Zlogar essentially propose that there is a logophoric operator that licenses such anaphors. A logophoric operator of the type they propose could act as the needed binder for the range of reflexives above, making difficult any sure conclusion about there being a structural subject in Why-VP Structures.

We introduce the observations here firstly because it is important to demonstrate that the possibility of binding from the implicit subject of Why-VP does in fact exist and secondly because an interesting generalization emerges from this data. It is striking that the ϕ-features of the anaphors in (29)-(34) are not constant. In different examples we observe differing genders and differing persons and numbers—first person, second person, third person, singulars and plurals. This suggests that there is more to say about the interpretation of such subjects than that they are always arbitrary or unspecified. Rather it seems to be the case that aspects of the discourse context can influence the interpretation of the subject—such that it can have the kind of specific reference associated with first or second person pronouns, for example
– properties which can then manifest themselves on the form of the reflexive. We return to these important issues in section 7.3.

### 5.1.2 Reciprocals

Reciprocals in English are more strictly subject to the Principle A condition (it is either impossible or more difficult to coerce them into logophoric interpretations). They can thus provide stronger evidence for the presence of a structural subject than do reflexives. Reciprocals require a plural antecedent and must be bound locally:

(36)  
   a. They saw each other.  
   b. *He saw each other.

They cannot occur in the contexts that (35) can appear in:

(37)  
   a. *The parents said that [the rain had damaged pictures of each other].  
   b. *In their opinion, physicists like each other, are rare.  
   c. *They boasted that [the queen invited Lucie and each other for a drink].

There are no examples with each other in the NYT corpus examples, but an informal Google search confirms that it is possible to get reciprocals inside the Why-VP fragment:

(38)  
   a. We want to be ready for anything in life, but why insult each other in trying to destroy our maturity?[^4]  
   b. If we cannot use modern tools to fight primitive thinking, why insult each other? Why hate each other?[^5]  
   c. Why not eat each other?[^6]

Both Why and Why-not-VP may host reciprocals. Furthermore, the fact that reciprocal anaphors do not in general permit logophoric binding means that examples such as (38) provide stronger evidence for a structural subject in Why-VP fragments than do examples involving reflexives.

[^4]: From the book: How Would You Like A Bite of This Fruit, by Rodney Votion. Pg. 135  
5.1.3 Control

Why-VP fragments can contain within them structures that are in general analyzed as Control. Control refers to a configuration where a subject DP, often of an embedded clause, is silent but is interpreted as bound by a higher, overt DP which c-commands the silent subject position as in (39):

(39)  a. I want _ to buy candy from that store.
       b. They tried _ to pretend that everything was okay.

In (39), the embedded predicates *buy and *pretend are missing the overt realization of their agent argument. However, these structures are not uninterpretable. Intuitively, the subject of the matrix clause *I and *they respectively are identified with the agent arguments of the predicates in the embedded clause. A standard account of these facts is that there is a controlled *pro sitting in the specifier of infinitival *T, *to. The Control module is then supposed to guarantee the impossibility of (40):

(40)  a. *(PRO) likes you.
       b. *(They like (PRO).
       c. *(I believe (PRO) to be intelligent.

Based on the strict distribution of controlled *pro, namely that there must be an overt DP in a matrix clause in order for it to be interpreted and licensed, we can deduce that control in Why-VP is licensed by a pronominal element, a structural subject. Consider:

(41)  Context: For now, the NFL is willing to wait and see what develops.
       Why make a decision before _ having a chance to look at all the alternatives?

(42)  Context: I don’t understand what’s accomplished by a gratuitous insult? Does a bad situation really need another act of unkindness to set it right? When someone does something you don’t like, why not approach the situation with the aim of being helpful, and if that fails, then get even?
       Why choose _ to add more negativity to the world?
Context: Dodgers rookie Hideo Nomo is almost sure to start Tuesday night’s All-Star Game, after Atlanta Braves ace Greg Maddux suffered a groin strain Thursday that almost certainly will keep him from pitching in the midsummer classic in Arlington, Texas.

Why not take a couple extra days _ to recover?

In (41), there is a clausal adjunct headed by before which does not realize a subject but is nevertheless well-formed. The subject of having is interpreted as a variable bound by whatever is interpreted to be the subject of make in the matrix clause.

The intuitive interpretation of (42) of course is, why would x choose (for x) to add more negativity to the world? That is, the subject of the lower clause is referentially dependent on the subject of choose in exactly the way familiar from other cases of control. But if obligatory control of the sort seen in (42) and (43) is always dependent on the presence of a structural binder which commands the embedded subject (see Landau (2013) for extensive arguments in favor of this position) then there must be such a structural binder in (42) and (43).

Again, the generalization seems to be that there is a structural subject capable of being an appropriate binder for embedded or controlled pro, otherwise we would expect ungrammaticality of the kind observed in (40).

5.2 Raising

In this section I will look at evidence from passive and quantifier float which is in harmony with the conclusions suggested by the binding facts and also suggests that a DP in Why-VP moves from its base-position within vP to an A-position in Why-VP.

5.2.1 Passive

If we accept standard analyses, the passive construction in English is derived by A-movement, where a DP complement to V is raised to the matrix specifier of T. Since A-movements are thought to be motivated by properties of an attracting Tense head, there needs to be something built into the grammar which permits a DP complement to V to raise to the specifier of T instead of from the specifier of little-v, which
is in a higher position, c-commanding more structure and making it more local to T, a case-assigner. What is standardly assumed is that there is are two little-v’s in the grammar, one that introduces an external argument, and one that doesn’t. In the case of passive, an external argument is not generated, thus the internal argument of the verb is a goal for T, and raised to its specifier.

Passive is possible in Why-VP fragments, which suggests two things about the structure: one, there exists a voice head in these constructions, and two that there is enough structure to ensure that the internal argument of the verb is treated like a subject. In Why-VP the subject is resolved to silence, and in the passive Why-VP, what would take the position of the subject is identically silent. Consider the naturally occurring example below.\footnote{Example (44) could be analyzed as adjectival. However, it would be possible to modify (44) with a by-phrase indicating a verbal passive: Why be intimidated by the bullies?}

\[(44) \quad \text{Context: "I look at it this way: What do we have to lose?"} \]

\[\text{"Why be intimidated?"} \quad \text{nnyt 180878} \]

Notice that it is not possible to leave the object low:

\[(45) \quad *\text{Why be intimidated us?} \]

This suggests that certain structural principles still hold, namely that there must be a subject in these cases that moves out of its base-position in order to ensure that (45) is not generated. The DP which originates as an object of intimidate is also reduced to silence, as would the subject of regular active sentence. This would suggest that the appropriate syntactic technology that treats internal arguments like internal ones in passive is at work in Why-VP as well, implying that not only do we need a voice head, but we also need a projection like T, which is responsible for ultimately treating the internal argument like a subject in passives.

5.2.2 Quantifier Float

Certain quantifiers in English (and in many other languages) while being construed with subjects may be separated from them. This is the phenomenon of Quantifier
Float. Why-VP fragments, particularly, Why-not-VP fragments may host the quantifier associated with the observed phenomenon of quantifier float. There are two broad approaches to the analysis of quantifier float phenomena, but all converge on the conclusion that the quantifier is associated with a structural subject. Consider the following sentences:

(46)  

a. They (all) must (all) have (all) been having a good time, since they stayed so late.

b. The children (all) could (all) see squirrels from the window.

One analysis suggests that in the vP specifier position in which the subject originates, the quantifier all forms a constituent with the definite DP which will ultimately appear in subject position; as the entire DP (including all) raises to the specifier of matrix T, all can, as an option at each derivational step, be left stranded, in positions often thought to demarcate the positions through which the subject has raised. Alternative analyses suggest that all is an adverb which freely adjoins to the various phrases out of which the subject raises and that the association between quantifier and definite is handled by essentially semantic mechanisms. I will not commit to either analysis here because the relevant generalization still holds; floated quantifiers in English are always associated with structural subjects.

It is important to observe, then, that Why-not-VP structures also host quantifier float, as seen in the example below:

(47)  

a. Everyone needs a getaway, why not all go together?

b. Why not all get together and make it happen?

For reasons that are at present unclear, Why-VP and Why-not-VP seem to come apart at this point. Floated quantifiers do not seem to occur as freely in Why-VP structures. I was unable to find any coherent examples of why all-VP, even when scouring an informal Google search, and my intuitions tell me that it is quite awkward to use:

(48)  

a. ?Why all choose that framework to work in?
b. Why all upset each other?

Both examples above present a perfectly reasonable wondering: *why would you all choose that framework to work in, or why would you all upset each other?* Yet, there is something awkward about (48) that simply isn’t observed in (47). I will not address this distinction, though we should still take note of the fact that Quantifier Float is possible in Why-not-VP, indicating that a structural subject is responsible for its well-formedness.8

These facts then allow us to further establish the presence of a structural subject, but they do not necessarily establish an A-position to which the subject in Why-VP can raise. In active sentences that contain quantifier float such as (47), it is impossible to tell whether the subject is in its base-position located at spec-vP or if it raised out of the verbal domain. To see more clearly that the subject does in fact raise out of this domain, we look at the interaction between quantifier float and passive.

In English, it is possible to see partial raising of subjects in passives when they take part in existential *there*-constructions. For example:

(49) a. There were several actors in the industry directed by Steven Spielberg last winter.

b. Several actors in the industry were directed by Steven Spielberg.

In (49a), the subject *several actors in the industry* is sandwiched between the passive *be* and the main verb *directed*. This indicates that when an internal argument raises to the specifier of TP in passive, it may stop along the way in a position between the main verb and the passive *be*. If *there* is inserted, then we get (49a). However, if *there* is not inserted at TP, the result is (49b), which means we are unable to see that the DP has stopped in an intermediate position along the clausal spine.

In Why-VP, quantifier float and passive suggest a) the presence of a structural subject and b) that if certain structural principles hold, we expect that there be an A-position. However, we cannot actually tell in (47b) whether *all* has raised out of

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8It has been noted by some speakers that adding *together* to examples like (48) make them better (e.g. *Why all work on the same problem together?*, or adding *at the time time*, (e.g. *Why all leave at the same time??*))
its base-position. We will now see though that there is evidence for raising in such cases. In the example below, *all* must occur above the passive *be*:

(50) a. Why not all be directed by Steven Spielberg in the spring?  
    b. *Why not be all directed by Steven Spielberg in the spring?*  
    c. *Why not be directed all by Steven Spielberg in the spring?*

The paradigm in (50) above tells us that *all* cannot be left in its post-verbal base position, nor can it be left between the passive *be* and the main verb. Example (50b) is to be expected given that *all* is a strong quantifier, which means it is incompatible with partial raising in *there*-constructions. The only position in which *all* is grammatical is above passive *be*, indicating that the mechanisms which drive movement to an A-position are indeed available in Why-VP.

### 6 Summary and Implications

What has been established so far is this: the interpretive properties of the implicit subject in Why-VP cannot be derived solely on the basis of pragmatic inference. It interacts with the core syntactic structure in terms of binding and in terms of raising. It crucially must be able to bind reflexives, reciprocals, and PRO, and it undergoes A-movement in passive and quantifier float contexts. We conclude from this that there must be a null functional head which hosts the subject of Why-VP in its specifier.

It follows in turn that the presence and the properties of that null functional head must be made contingent on the appearance of *why* and that understanding this construction is essentially to understand the interactions among *why*, the null functional head and the silent element in its specifier. Recall that the bare VP in Why-VP is dependent on the presence of *why* and that no form of agreement is possible on the verb. This indicates that the null functional head does not participate in the kind of agreement found in finite clauses. It is also true that the null functional head is not sensitive to a DP with a particular set of phi-features. The binding facts in section 5.1 indicate that the null subject is not fixed in its phi-features.
To make the necessary link between the observed cluster of properties and *why*, it seems natural to assume that the crucial null head is selected by *why*, or the head which hosts *why* in order to ensure that it is the combination of both *why* and the null functional head that licenses such structures.

I argue here that the clausal spine should be articulated as follows: *why* is a head, which selects the null functional head which hosts the crucially null subject and selects the bare VP.

7 Stepping Down the Clausal Projection

7.1 The Left Periphery

It is not traditionally assumed that *why* should act as a selector or a head. The standard analysis of *why*, like other wh-elements, is that it is phrasal and that it perhaps raises for interpretive purposes to a specifier in the left-periphery. However, the literature is replete with evidence that *why* is distinct from other wh-phrases cross-linguistically. It is not controversial to assume that *why* is externally merged higher than other wh-elements; in particular, there is accumulating evidence that *why* can be merged initially somewhere in the left-periphery.

Building on earlier work, Rizzi (2001) argues that *why* should be externally merged (at least as an option) in the left-periphery. More specifically, Rizzi (2001) argues that in Italian *why* is base-generated in IntP, which is a position in the left-periphery above FocP, while other wh-elements are generated lower in the verbal domain and raise to IntP eventually. Building upon this initial proposal, Shlonsky and Soare (2011) argue that actually some instances of *why*, specifically those that elicit a response pertaining to *reason*, are generated slightly below IntP in ReasonP, which is still situated higher than the initial merge position for other wh-elements.

Bromberger (1992) establishes that *why* is the only interrogative phrase that can be answered differently depending on the phrase which is phonologically focused in its domain. He takes this as evidence that *why* takes scope outside of focus operators, while other wh-adverbials like *when* and *where* are generated below the focus
operator, raise above focus operators, and bind a trace. This ultimately arrives at the same conclusion; *why* need not bind a mid-sentence trace, therefore *why* may be base-generated higher than other wh-elements.

Chapman and Kučerová (2016) suggest that ultimately *why* is ambiguous semantically and syntactically. The purpose reading of *why* is base-generated in the domain of vP, while reason *why* is base-generated higher in ReasonP. In Why-VP both interpretations appear to be possible:

(51) Why go to the grocery store at 10pm?

A: To avoid the crowd.  

B: Because I like shopping at night.

To Chapman & Kučerová, the above would indicate that *why* in Why-VP is ambiguous between being base-generated in the left-periphery and being base-generated in the verbal domain. However, there is an interesting locality constraint on *why* in Why-VP structures observed in Collins (1991), which would suggest that *why* in Why-VP is always base-generated high (despite having both a purpose and reason interpretation):

(52) Why say that John likes Susan?

In (52), *why* can only be construed as modifying the matrix *saying* event description. *Why* can usually be interpretively construed in two places when part of a bi-clausal structure with both purpose and reason interpretations as in (53):

(53) Why did she say that John likes Susan?

*Why* can be construed in (53) with the embedded *liking* event or with the matrix *saying* event. In general, *why* also partakes in island formation:

(54) *What time did you wonder why John would see Spiderman?*

This suggests that *why* does and can live life in an intermediate specifier, so it is unclear what would stop it from being construed in an embedded clause in a corresponding Why-VP clause, as in (52). Given that *why* seems to have a special
status in (52), it seems necessary to restrict it to always being base-generated in the matrix clause in Why-VP.

If we were to posit a null C +wh in (52), in whose specifier why happens to be generated, as opposed to probing for a wh-element in its c-command domain, what would block an alternative derivational path on which why is base-generated as an adverbial to an embedded VP and then raised to the root specifier of C +wh? In principle, nothing stops the latter scenario. But the option is absolutely unavailable in Why-VP. Although several researchers have noted that why is special syntactically in being merged high, any account that analyzes why as a phrase will simply not be able to block why from raising from an embedded position, thus predicting low construals of why in Why-VP.

An alternative analysis to why being base-generated in some specifier of the left-periphery would be instead to posit that why is a head. Collins (1991) observes that how come is subject to the same locality constraint, in that it is unambiguously interpreted in the matrix clause of a bi-clausal structure. Collins takes this in combination with the lack of T to C movement in how come questions to argue that how come is a head rather than a phrase.

Why is a lexical item (monomorphemic) and therefore has the potential to bear a selectional feature. If we assume Bare Phrase Structure (Chomsky (1995)), once we say that why can select, we expect it to project its label, thus making Why-VP a WhyP.

In the framework of Bare Phrase Structure, maximality is a relational property determined in the course of syntactic structure building. If a lexical item combines with some syntactic object α forming β:

(55) $\beta$
    \[ \begin{array}{c}
    \text{L} \\
    \alpha
    \end{array} \]

There are two ways of interpreting the resulting structure syntactically. If L selects α, L labels β (is its head) and is minimal. If α selects L, α labels β (is its head) and L is maximal. Thus if why in the lexicon of English may optionally select the null
functional head whose existence we have been arguing for, we expect it to take part in syntactic composition in two very different ways.

Along one derivational path, it will select null T and label it producing in effect a WhyP. This is Why-VP. Along a different derivational path, it will lack the crucial selectional feature, it will enter the derivation in the familiar way, be defined as maximal (not being a selector) and will potentially undergo phrasal movement to an A-bar position.

On this view, then, what is crucial in determining that English has the Why-VP construction whose properties we are exploring is that the lexicon of English includes an instance of why which happens to select null T with the relevant interpretive properties.

Note that it will not do to maintain the conventional assumption that why appears in the specifier of a null C in these cases, since that C is presumably indistinguishable from the C that hosts phrasal wh-elements like for what reason. Such phrases do not of course support Why-VP:

(56) *For what reason take Structure of Japanese?

While why normally enjoys the status of a phrase and exhibits characteristics of phrasal movement, this need not be the only lexical entry for why. In Why-VP, we see evidence of why acting as a head, or as a selector, therefore, making it minimal and labeling the resultant expression which merges why with the null-functional head, for which it selects. Crucially, it does not exhibit the characteristics that make it look phrasal, i.e. it does not seem to move from an embedded clause.

Furthermore, we expect that adverbial elements which are phrasal, like exactly, should not be able to attach to why in Why-VP. This prediction is indeed borne out:

(57) a. *Why exactly shop at 10pm?
   b. *Why exactly take Structure of Japanese?

In non-reduced why-questions, exactly is perfectly acceptable:

(58) a. Why exactly would you shop at 10pm?
b. Why exactly would you take Structure of Japanese?

c. I don’t know why exactly he would shop at 10pm.

d. I don’t know why exactly he took Structure of Japanese.

It is clear, I think, that (57) is more degraded than those of (58) indicating that it is right to think of why as a minimal projection rather than a maximal.

Why-VP does permit ‘the hell’ or ‘on Earth’ to occur between why and the vP, which, according to Merchant (2002) is consistent with an analysis on which why is analyzed as a head here. First consider:

(59)  
\begin{enumerate}
\item Why \textit{the hell} change a winning formula that worked so well against Liverpool at the weekend?\footnote{Found in a sports article: https://www.ontheforecheck.com/2017/4/16/15318230/heres-what-worked-shutting-out-the-blackhawks}
\item Why \textit{on earth} sell her jewels?\footnote{Found in ‘The Great Mistake’ by Mary Roberts Rinehart}
\end{enumerate}

In the right context, on earth and the hell seem to be quite natural, while why exactly-VP seems comparatively less natural. I foresee variation in these judgments, but examples like (59) seem to be consistently rated as good, while there is some inconsistency with respect to why exactly-VP. This seems to be the trend among the small sample of peers I have surveyed, at least. Regardless, Merchant (2002) observes that modifiers like exactly only attach to phrases, while ‘on earth’ and ‘the hell’ modify heads. The following examples are noted:

(60)  
\begin{enumerate}
\item Who the hell was he talking to?
\item What the hell was he talking about?
\item When/where/why the hell was he talking? \footnote{[Merchant (2002: ex.37)]}
\end{enumerate}

(61)  
\begin{enumerate}
\item *What book the hell was he reading!?
\item *What kind the hell of a doctor is she, anyhow!?
\item *What kind of a doctor the hell is she, anyhow!? \footnote{[Merchant (2002: ex.38)]}
\end{enumerate}

(62)  
\begin{enumerate}
\item *Which exactly train did the take?
b. (Exactly) Which train (exactly) did they take?

Assuming that Merchant (2002) has the right syntactic characterization of the above modifiers, then the unavailability of exactly in Why-VP and the availability of the hell in Why-VP would suggest that the characterization of why in Why-VP is the right one.

A final and welcome outcome in assuming Why-VP is a WhyP is that we can understand its inability to be embedded as a product of selection. Recall that Why-VP structures cannot be embedded:

\[(63)\]

a. *I don’t know why take Structure of Japanese.

b. *I wondered why take Structure of Japanese.

Verbs like wonder and know will select a CP, but Why-VP is not a CP and as such, it will not be selected.

If, in Why-VP, why is a head that selects a null functional head with properties much like a defective or nonfinite T, one that cannot assign structural Case, many of the properties of Why-VP follow and are linked, all reflecting the fact that the lexical item why may bear the crucial selectional feature. Only monomorphemic why supports the structure, it is not embeddable, why does not undergo movement, its subject is pro, and we also expect as we will see, a variable modal interpretation, following Bhatt (1999).

7.2 The Null Functional Head

In Why-VP, there is evidence to suggest that between why as a head, marking the beginning of the left-periphery, and the verbal domain, likely beginning with vP, there is an intermediate position which hosts the silent yet syntactically active subject. This intermediate functional head must be null, it must be able to license a silent subject, select a bare VP, be construed as futurate and likely contributes to the modal interpretation. Aside from the property that it must be null, this cluster of properties is normally linked to infinitival clauses in English, marked by the T, to.
Despite the fact that there is no overt to, Why-VP has been taken to be an infinitival clause by Bhatt (1998) and Duffley & Enns (1996). In what follows, I try to precisify the analogies and parallels between Why-VP and wh-infinitivals in support of analysis where the null functional head in Why-VP is nonfinite.

7.2.1 *Why + to

The null functional head in Why-VP should be one that selects a bare VP and licenses null subjects. Nonfinite T in English is one that does both. As will be discussed in the following section, Bhatt (1999) argues that a teleological modal is present in wh-infinitive clauses, which, if present in Why-VP would account for the observed modality. This makes nonfinite T seem like a good candidate for the licensing of these constructions. One obvious problem, however, is that there is no overt to in Why-VP as is standard in infinitival clauses in English. In fact, unlike other wh-phrases it is not possible to use why in conjunction with to at all:

(64) a. I don’t know when to leave the house.
   b. I don’t know where to hide my keys.
   c. I don’t know how to tie my shoes.
   d. I don’t know what to work on next.
   e. I don’t know who to call.
   f. *I don’t know why to do my homework now.

In root clauses, wh-infinitivals are possible, but again, not with why:

(65) a. When to leave?
   b. Where to hide?
   c. How to fix the sink?
   d. What to do?
   e. Who to call?
f. *Why to leave?\textsuperscript{11}

The impossibility of why with to seems to be a quirk of English given that languages which do allow embedded wh-infinitivals and root wh-infinitivals do not seem to observe this restriction on why. Specifically, Polish does not observe this restriction (Jedrzejowski (2014)). It is also true of German that it does not permit embedded wh-infinitivals (Sabel (2006)), but allows a wide range of root wh-infinitivals according to Hofmann (2018), including why.

Barrie (2007) argues that the ban on why in embedded infinitivals must have to do with why being merged higher than other wh-phrases and suggests that wh-infinitivals have a truncated left-periphery, which lacks a position high enough for why to be merged. Shlonsky and Soare (2011) propose something similar, but they want to capture the fact that actually why can be construed in an embedded infinitival clause when it is overtly pronounced in a finite matrix clause. They note the following example:

(66) Why did you ask her to resign? [Shlonksy and Soare (2011: ex.2)]

Shlonsky and Soare observe that a short construal where why modifies ask, and a long construal, where why modifies resign are both possible readings, which suggests to them that why can be generated in an infinitival clause, but that it cannot stay there. The incompatibility between why and to, thus, also stems from the fact that why eventually needs to be raised to IntP – a position which wh-infinitivals lack under this account.

Both Barrie (2007) and Shlonksy and Soare (2011) would need to say something about the availability of why in embedded wh-infinitivals cross-linguistically. Neither of these accounts explain the possibility of why in embedded wh-infinitivals for Polish. In maintaining their analysis for English, they would probably need to say

\textsuperscript{11}Duffley & Enns (1996) suggest that why + to is possible in affirmative contexts. They note the following corpus examples:

(65) a. Why to ban birthdays
b. Radio: How, When and Why to Use it
c. Why to vote Yes in the referendum
that while the left periphery of embedded wh-infinitivals is truncated in English, other languages have a larger infinitival left-periphery.

However, an important difference between English and languages like Polish and German that should not be overlooked is that in languages like Polish, infinitival verbs are expressed in one morphological word, while in English infinitival verbs are bi-morphemic. It is not clear what the semantic contribution of to is in English and if its morphological independence has any bearing on the possibility of why co-occurring with it, but this might be an alternative way of viewing the incompatibility between why and to. For example, Duffley and Enns (1996) consider the possibility that Why-VP is the infinitival counterpart to the root questions in (65), where the infinitival T is null. They argue that the semantics of to demands that its VP complement be actualized. They observe that the pragmatic function of Why-VP is to question the conceivability of a reason to actualize the VP. For them, the absence of to is a reflection of this pragmatic function. However, this still does not explain why there cannot exist a version of infinitival why-questions with an overt to which does not elicit this pragmatic function.

A future line of investigation should look at root wh-infinitivals in other languages, which allow such constructions to see if the attitude is conveyed across the wh-elements and if there is any special bias encoded in why-infinitivals. Recall that German has been reported to allow the full range of root wh-infinitivals. If we were to find that why behaved pragmatically similarly to English Why-VP we might attribute this speaker-bias to the why rather than to the lack of infinitival to as proposed in Duffley and Enns.

Regardless of the semantics of to, it is interesting that there should exist such a paradigmatic gap. We might think of Why-VP as filling in the gap with a particular null infinitival T. A null infinitival T would license the null subject, particularly pro, and select the bare VP. The modal interpretation in Why-VP would then be explained given an analysis of modality in wh-infinitival clauses posed by Bhatt (1999).
Bhatt (1999) argues that (embedded) wh-infinitivals always contain a covert modal at C. If Why-VP is also an infinitival clause, then Bhatt’s analysis predicts that it should necessarily encode modality, which is borne out, given the empirical observation that has been maintained throughout, that Why-VP are accurately paraphrased with and interpreted as the deontic/teleological modal ‘should’ and the counterfactual modal ‘would’. In this section, I show that not only are Why-VP and wh-infinitivals both modal in their interpretation, but that they allow the same kind of modal, namely a modal with a circumstantial base that has a teleological ordering source. These parallels imply that Why-VP structures and wh-infinitivals likely contain the same element responsible for the modal interpretation; namely, an element which selects an infinitival T. In Why-VP this infinitival T is silent, while in embedded wh-infinitivals, T is overt.

The modal in wh-infinitivals is characterized by Bhatt (1999) as deontic and in some cases, purely circumstantial, but is never epistemic. Despite the observed variability in modal flavor, he argues that there is one modal underlying in wh-infinitival clauses, one whose interpretation shifts depending on various contextual factors. Consider the following:

(67) a. Asta knows where to get gas.

\[ (= \textit{Asta knows where he could get gas}) \quad \text{[Bhatt (1999: 240a)]} \]

b. Hafdis knows who to talk to at the party.

\[ (= \textit{Hafdis knows who she should talk to at the party}) \quad \text{[Bhatt (1999: 247)]} \]

c. Asta decided where to get gas.

\[ (= \textit{Asta decided where he would get gas}) \quad \text{[Bhatt (1999: 240c)]} \]

Bhatt argues that ‘should,’ ‘would,’ and ‘could’ are the only available finite modal paraphrases for wh-infinitivals and are always interpreted relative to a circumstantial modal base, thus ruling out epistemic interpretations. Under Bhatt’s analysis, the underlying and covert modal in each example above is existential, which would normally result in the interpretation a possibility interpretation (i.e. could); how-
ever, Bhatt adds a second conjunct which functions as a restriction, ensuring that
the denotation of this covert modal picks out the set of true propositions which lead
to the satisfaction of goals set by the context, thus making the modal fundamentally
teleological. So a proposition built around this modal will only be true if it leads
to the satisfaction of the goals. In (67a), the interpretation of could (a pure circum-
stantial possibility) falls out from the fact that if my goal is to get gas, all worlds in
which I get gas from anywhere have satisfied my goals – it does not matter where
I get gas. That is, the goal is explicit in the embedded infinitival question in (67a)
itself.

However in (67b), the goal is not simply to talk to people at the party, but to
talk to people at the party who will satisfy some goal, like becoming popular. This
means that talking to anyone at the party will not satisfy this goal, thus a proposition
that states I have talked to some arbitrary person does not entail that I have met my
goal. That second conjunct will ensure that all the worlds in which the proposition
is true, I will have met my goals, which will result in a universal deontic interpre-
tation of should. If that second conjunct is trivially true, such as in (67a), the result
is pure circumstantial possibility, which falls out from the existential force of the
modal. However, it is important to note that by adding more context to the goal in
(67a), such that the goal is not simply to get gas, but to get gas from some ethically
commendable source, then we can get should as an interpretation.

As for the possibility of would in the interpretation of (67c), Bhatt suggests that
the embedding predicate decide is what contributes to its availability. However,
Bhatt only considers how this covert modal works in the complement of factive
know, so he is able to derive both could (see (67a)) and should (see 67b), but does
not consider in depth how (67c) with would embedded under decide is derived in
this system.

What may seem like a given at this point is that this modal is restricted to wh-
infinitival contexts. In order to derive the fact that wh-infinitivals are always in-
terpreted as modal, Bhatt suggests that the infinitival C+wh contributes the covert
modal in question. Attributing the modality to this particular head captures the
contrast between other infinitival relatives (which lack a wh-element) that are optionally non-modal, given that they presumably lack the infinitival C_{+w} layer. As for the analysis of those optionally non-modal cases, it is suggested that the modal is contributed by elements from within the infinitival clause itself rather than from C.

If Why-VP is covertly a wh-infinitival, that is, the null functional head in Why-VP is akin to infinitival T, we expect that it will also contain this modal. Accordingly, we expect the interpretation of Why-VP to be obligatorily modal, to be restricted to modal interpretations compatible with a circumstantial modal base (disallowing epistemic interpretations), and for the modal flavor to shift based on contextual factors. Introspection about the interpretation of Why-VP suggests that these predictions are borne out. As I have maintained throughout, Why-VP is generally vague between ‘should’ and ‘would’, where ‘should’ is only interpreted as deontic (requiring a circumstantial modal base), and is never interpreted as epistemic.

The intuition that both should and would are possible interpretations of the modal here is substantiated by their interaction with Negative Polarity Items (NPIs). In the context of why-interrogatives, certain modals are compatible with NPIs, and some are not. First note that NPIs are possible in Why-VP constructions:

\[(68)\]  
\[a.\] Why do a damn thing about it?  
\[b.\] Why lift a finger?  
\[c.\] Why finish any of my homework?

In a non-reduced paraphrases of Why-VP interrogatives, the only modals that can co-occur overtly with NPIs are should and would:  

\[(69)\]  
\[a.\] Why should we talk anymore/do a damn thing about it?  
\[b.\] Why would we talk anymore/do a damn thing about it?  
\[c.\] *Why could we talk anymore/do a damn thing about it?  
\[d.\] *Why can we talk anymore/do a damn thing about it?

---

12The distribution of NPI’s in wh-interrogatives remains poorly understood (see especially Guerzoni and Sharvit (2007) on maximality) but the effect of choice of modal, as seen in (69) seems, as an empirical matter, beyond dispute.
e. Why must we talk anymore/do a damn thing about it?13
f. *Why may we talk anymore/do a damn thing about it?
g. *Why will we talk anymore/do a damn thing about it?
h. *Why might we talk anymore/do a damn thing about it?

If the interaction between NPIs and modals above is a semantic one, a constraint on interpretation, as seems likely, then we should presumably conclude that the semantics of the covert modal of Why-VP structures is close to, or identical to, the semantics of would and should, given that Why-VP also licenses NPIs. Relatedly, in almost every case that Why-VP is used, a version of (69a) or (69b) is generally acceptable indicating that Why-VP should be taken to be closely related to these non-reduced forms with an overt modal.

As we have seen already, Bhatt observes ‘should’ and ‘would’ as possible interpretations for overt wh-infinitivals, suggesting the conclusion that Why-VP and wh-infinitivals should be treated as related structures. It should be noted that could is both impossible as licensor of NPIs in finite why-questions and empirically does not seem to be an available interpretation for Why-VP. Recall that the availability of could in Bhatt’s analysis falls out from a special case of the modal, where the embedded wh-infinitival question itself incorporates the goal, resulting in pure circumstantial possibility. Given Bhatt’s analysis, the unavailability of could would reflect a contextual restriction in Why-VP that the goals set by the context cannot be included within the Why-VP utterance. For example, there seems to be something odd about the following discourse:

(70) Context: John tells Sally that his goal is to learn Japanese by the end of the summer.

Sally: #Why learn Japanese?

It seems odd if Sally knows that John’s goal is to learn Japanese and asks the above Why-VP question. In naturally occurring examples of Why-VP, the speaker often assumes some person’s goals or perspective and suggests that the eventuality denoted

\footnote{Must seems to be marginally better than the other modals, to the exclusion of should or would. A context could make must acceptable, but should or would do not seem to need any additional context to license NPIs.}
in the VP would be contrary to those goals. Consider:

(71)  Context: *Paying bus fare with a debit card could be a terrific convenience, she said, as long as the bank or credit union doesn’t ding you with transaction fees. But think twice about charging that trip on a credit card, she cautioned.*

Why pay 18 percent interest on bus fare?  

We can understand (71) as, *given your goal to spend as little money as possible, why would you (choose to) pay 18 percent interest on bus fare?*  

Now looking back at (70), the oddness might be coming from the fact that we expect Why-VP questions to be interpreted along the above reasoning: *given that your goal is to learn Japanese, why would you (choose to) learn Japanese?*  

The issue here is that Sally in (70) seems to be indicating that learning Japanese is contrary to John’s goal, though we know from the context that learning Japanese is his goal, thus oddity ensues. It is not clear what contributes exactly to the speaker-bias in Why-VP, but I merely mean to suggest that the speaker-bias often associated with Why-VP may have something to do with the impossibility of interpreting could in Why-VP, which for Bhatt is a product of specifying the context goals in the wh-infinitival itself.

It is also important to note that in (69), should and would are likely the only modals which license NPIs because they, in conjunction with why provide a rhetorical reading, indicating a speaker bias, where in (69a) and (69b) the speaker seems to be suggesting that in fact we should not talk anymore or we should not do a damn thing about it. Why-questions with modals are not always rhetorical, but they seem to always be when they contain NPIs. The same is true for Why-VP.

Why-VP often favors a rhetorical interpretation, in which a speaker bias is encoded to the effect that the event denoted by the VP should not be instantiated. However, this is by no means an obligatory effect. In the example that started this all, *why take Structure of Japanese,* the intent of the speaker (or the poster, rather) is not to suggest that you should not take Structure of Japanese. In this case the poster goes on to list the reasons one should take this particular class.

This is a particularly important point because it indicates that the modal force of Why-VP cannot be derived solely from the frequent use of Why-VP as a rhetorical
question. Why-VP is not always interpreted as rhetorical but the modal interpretation is constant across uses. There must be then some independent component contributing the modality, which is independent of the pragmatics of rhetorical questions.

A reasonable way to proceed then, is to attribute that independent component in Why-VP to the covert modal found in wh-infinitivals. The modal in Why-VP is restricted to those which are compatible with a circumstantial modal base and the context can determine whether we interpret ‘should’ or ‘would’ as the more salient modal, but either seem to be freely available, as Bhatt’s analysis would predict. We could then understand the facts of NPI licensing as a reflection of the fact that this interpretation makes interpretation of the entire structure as a rhetorical question particularly plausible– which in turn licenses the NPIs.

In my analysis, I assume that why is a head, marking the beginning of the left periphery – I do not assume that a C-layer exists in Why-VP. In analogizing the clausal spine of Why-VP to Bhatt’s analysis of wh-infinitivals, I might put the covert modal into the semantics for why since he puts the covert modal at C for wh-infinitivals. But for one head to both introduce the covert modal and introduce the semantics for why is probably not ideal. Instead, it is more likely that null infinitival T itself introduces the covert modal in Why-VP. It does not seem strictly necessary for Bhatt’s analysis that the covert modal be in C – it simply predicts wh-infinitivals to be obligatorily modal, and allows subject infinitival relatives to be (optionally) non-modal, assuming that they lack the C-layer hosting the covert modal. The relevant examples are in (72) below:

(72)  a. The man [to fix the sink] is here.   Modal

b. The book [to be read for tomorrow’s class] is kept on the table. Modal

c. The first man [to walk on the moon] visited my school yesterday. Non-modal

[Bhatt (1999: ex. 19a, 19b, 19c)]

Still, those subject infinitival relatives are able to encode modality, which suggests
to Bhatt that modality can come from within an infinitival clause rather than necessarily from the left-periphery. Given my analysis of why as a head, why will always select the covert modal, which, for our purposes, will be hosted at the null infinitival T, rather than C\(^{14}\). The resulting tree is in (73):

(73) \[ \begin{array}{c}
\text{WhyP} \\
\text{Why} \\
\text{TP} \\
\text{D} \\
\text{PRO} \\
\text{T'} \\
\text{T} \\
\text{[−FIN]} \\
\text{Mod} \\
\text{vP} \\
\text{v'} \\
\text{v} \\
\text{VP} \\
\text{take Structure of Japanese} \\
\end{array} \]

We have earlier seen reason to maintain that the syntax of Why-VP has at its core a selectional relation between why and a silent functional head which hosts its subject in its specifier and which in turn selects a vP headed by a bare (uninflected) verb. It is natural in this context to attribute the very particular modal interpretation (which corresponds to no overt modal) to the null infinitival T, which will then relate Why-VP structures to wh-infinitivals, making the interpretational parallels exhibited in this section expected.

7.2.3 Future Orientation

The covert modal in Why-VP has so far been treated as parallel to its finite counterparts ‘should’ or ‘would,’ but it turns out that its combinatorial possibilities with respect to aspect appear to be more limited. Why-VP is incompatible with the perfect

\(^{14}\text{An alternative to this could be that why actually selects C, hosting the covert modal, which will in turn select the null infinitival T. It’s not clear, however, why the T of Why-VP must be null, while in embedded wh-infinitivals it is overtly expressed as to. One advantage of having the covert modal at T, which why selects for, is that it lets us directly capture the fact that why is incompatible with to.}
auxiliary *have, which has an effect on either the temporal perspective or temporal orientation of a modal proposition (Condoravdi (2001)), or both at the same time (Rullman and Matthewson in press). Consider the following:

(74)  a. *Why *have taken Structure of Japanese?
     b. *Why *have left the shop so early?

If the incompatibility above can be attributed to the covert modal in Why-VP, then we expect it should also exist in wh-infinitivals of the kind examined in Bhatt (1999):

(75)  a. *I don’t know when/where to *have hidden my keys.
     b. *I don’t know what to *have hidden.

Both (74) and (75) are degraded. But finite and overt versions of the modal are routinely compatible with the perfect auxiliary *have:

(76)  a. Why should/would we *have taken Structure of Japanese?
     b. I don’t know where we should/would *have hidden our keys.

One might assume that the above indicates the incompatibility with *have has to do with the infinitival nature of (74) and (75), which might be true to some extent. However, infinitival clauses in general do not seem to always show this restriction in that they are (at least in some cases) compatible with *have:

(77)  I want/need/would like to *have finished my homework by 10pm.

The incompatibility with *have, then, seems to be a limitation for wh-infinitivals. It seems reasonable to assume that the covert modal in both wh-infinitivals and Why-VP is responsible for this incompatibility.

To begin to understand the complicated interaction between modality and aspect, and what it might tell us about the incompatibility of the covert modal in Why-VP with *have above, I start with a sketch of the influential analysis developed in Condoravdi (2001). Condoravdi argues that for epistemic modals, the addition of

\[ \text{\textsuperscript{15}The data here is really delicate. These seem to get better with an embedded verb like write, as in I don’t know when to have written my paper *(by). The perfect is possible, but still seems much more limited in wh-infinitivals than in their finite paraphrases.}\]
*have* shifts the temporal orientation to the past, while for metaphysical modals (with a circumstantial modal base, rather than an epistemic modal base), *have* shifts the temporal perspective to the past (not the temporal orientation). The difference between temporal perspective and temporal orientation is thought to be both syntactic and semantic. Temporal perspective is contributed by tense (the T in a TP), which scopes above the modal. For Condoravdi, the temporal orientation is sometimes determined by an aspectual operator, which scopes lower than the modal. Namely, when an epistemic modal base combines with *have*, the temporal orientation shifts to the past, but the temporal perspective of that epistemic modal is still rooted in the present (time of utterance).

Condoravdi observes that metaphysical modals are incompatible with a past orientation. Yet, without the presence of *have*, both metaphysical and epistemic modals are ‘non-past’ oriented – that is, future or present oriented depending on various factors. The notion of ‘non-past’ is built in to the semantics of the modal itself. The incompatibility with past orientation for metaphysical modals falls out from the diversity condition, which is a constraint on modal bases that the metaphysical modal base is incompatible with. However, for modals with an epistemic modal base, a past orientation is compatible with the constraint imposed by the diversity condition. For our purposes, it is enough to understand i) that the modal itself contains the ‘non-past’ operator and ii) that a past orientation is ruled out for metaphysical modals because of the diversity condition (see Condoravdi (2001), Werner (2003) for a formal characterization of the diversity condition).

On the other hand, Matthewson (2012) argues that the future (and in some contexts, present) orientation of modals come from a non-perfect aspectual operator that scopes below the modal in English. Importantly, Matthewson assumes that future (and present) orientation is not inherent to the modal. Condoravdi and Matthewson both assume that *have* is an overt expression of aspect, contributing to the past orientation (for epistemics), but they diverge on attributing the future/present orientation of the modal proposition to a non-perfect operator separate from the lexical entry for the modal. Matthewson follows Condoravdi in assuming that lexical as-
pect and viewpoint have an effect on whether the modal can optionally be present oriented.

The covert modal in Why-VP and in wh-infinitivals is often interpreted as a deontic/teleological modal (e.g. should, must, ought to), which is derived from a circumstantial modal base. It has been argued that unlike metaphysical modals, deontic/teleological modals can have a past orientation, Thomas (2014):

(78)  a. Sam ought to have gone to confession.  \textit{Deontic}

b. To become a virtuoso violinist, you \textit{must have} started to practice early in your life. \textit{Teleological}

c. To become a virtuoso violinist, you \textit{should have} started to practice early in your life. \textit{Teleological}

What this all amounts to is that the null infinitival T in Why-VP, which I have suggested hosts the covert modal, seems to be fundamentally incompatible with the past orientation, which is not the case for overt and finite teleological/deontic modals as illustrated above. This is somewhat surprising, given that the covert modal in Why-VP is also thought to be teleological/deontic – it should also be compatible with \textit{have}.

The ban on the past temporal orientation can be straightforwardly accounted for in adopting the unitary analysis of modals and temporal orientation as decompositional, following Matthewson (2012). The future/present orientation of the modal is the product of a non-perfect aspectual operator below the modal in English. The covert modal in Why-VP can then be lexically specified to select the non-perfect operator, but no other operator, ruling out the possibility of \textit{have} for Why-VP and wh-infinitivals.

Condoravdi’s analysis of the non-past orientation of modals (sans \textit{have}) does not straightforwardly account for the restriction in Why-VP. In this account, the modal is inherently future oriented (and potentially present oriented when the VP is stative). Recall that Condoarvdi observes past orientations to be possible for epistemic modals in the context of \textit{have}, which means that the future/present temporal opera-
tor in the specification of the modal itself is not incompatible with a past orientation. If we built the future/present orientation into the lexical entry for the covert modal in Why-VP, we would have to resort to the diversity condition or some other constraint to derive its incompatibility with a past orientation as Condoravdi did for metaphysical modals.

However, as Thomas (2014) argues, the diversity condition does not rule out the possibility of past orientation for deontic/teleological modals, so the diversity condition alone will not rule out past orientations in Why-VP either, given that its modal is also deontic/teleological. We would therefore be left to find some other constraint to explain the impossibility of the past orientation in Why-VP. It is thus more favorable to assume that the covert modal in Why-VP gets its future/present orientation via selection of the non-perfect aspectual operator, as proposed in Matthewson (2012). This analysis will result in the following structure:\(^{16}\)

\[
\text{(79)}
\]

\[
\begin{array}{c}
\text{Why} \\
\text{T} \\
\text{MOD} \\
\text{Asp} \\
\text{NON-PERF} \\
v \\
\text{VP}
\end{array}
\]

This is not unlike the circumstantial modals Matthewson observed for Gitskan, which obligatorily select the prospective aspectual marker \textit{dim}. In Gitskan, the prospective aspect (future orientation) is overtly marked while the non-future (past or present) is covertly (un)marked. Matthewson observes that circumstantial, including deontic modals in Gitskan always select the prospective morpheme \textit{dim}, which requires them to be future oriented. Why-VP then may be exhibiting the same phenomenon in a sense, where the covert modal is specified for a particular aspectual operator. However, given that English will contain the covert non-perfect operator, we expect both present and future orientation of the VP to be possible:

\(^{16}\)Building on this analysis, Rullman and Matthewson assume that the non-perfect operator in English will select or occur above an ‘inclusion aspect’ which will contain either an imperfective or perfective operator. It is the inclusion aspect that combines with the vP. For simplicity’s sake I leave this out of the tree in (79).
As expected, present and future orientation is possible in Why-VP, while past orientation is absolutely ruled out.

It should be noted that neither Condoravdi nor Matthewson’s accounts can explain the fact that have in Why-VP cannot contribute a past temporal perspective. Recall that modals with circumstantial modal bases (including those with deontic/teleological ordering sources) normally permit a past temporal perspective with have. That would be a reading which indicates future possibility/obligation from a point previous to the utterance time. Why-VP’s incompatibility with have reflects, then, that a past temporal perspective from a grammatical standpoint is also impossible, which is a surprising result.

The incompatibility with the past temporal perspective then might be due to the infinitival nature of Why-VP. Wurmbrand (2014) argues that infinitival clauses uniformly lack tense (T) and those which are necessarily future oriented contain the future (covert) modal woll. It could be that what Wurmbrand suggests is woll is really similar in function to the non-perfect operator proposed for English by Rullman and Matthewson. An account in which there is no T is also consistent with Hacquard (2006, 2011), a smaller clausal projection should correspond to the unavailability of epistemics, a prediction which is certainly borne out. However, I do not necessarily adopt such an analysis, but leave it as an interesting possibility.

The investigation of modality and aspect has led to the following set of conclusions: why as a head selects the null infinitival T, which hosts the covert modal and

\[17^{17}\] Note that deontic semi-modals such as need to also do not allow past temporal perspectives when the perfect have occurs in their domain: e.g., he needs to have finished his paper before he can go out. This does not orient the event in the past with respect to the utterance time. T and past tense morphology contributes past perspectives for semi-modals such as need to. Still, though, need to have is not an ungrammatical sequence, indicating again that the covert modal in Why-VP has distinct combinatorial properties and thus is restricted interpretively as compared to other overt modals.

\[18^{18}\] There are contexts that seem to coerce a past temporal perspective:

(81) At that point, why invade Russia?

But this might be something really separate from what we observe when have contributes the past temporal perspective in a finite deontic/teleological proposition.
provides an A-position for the silent subject. The null infinitival T selects the Aspect head, which hosts the non-perfect operator as proposed in Matthewson (2012) for English, thus encoding the necessary future (and in some cases, present) interpretation of the covert modal. The remaining question is what about Why-VP requires the perspective to be tied to the time of utterance and what leads to the tendency for the event to be unactualized? I suggest, as a starting point, that its routine function as an imperative or suggestion likely contributes to this restriction, but I leave a precise account for future research.

7.2.4 Polarity in Why-VP

Now we turn to Why-not-VP, whose distinguishing feature is the appearance of negation. Polarity in Why-VP interacts with the clausal projection and therefore the null functional head in interesting ways. It is not clear where exactly negation sits in the structure. Is this a high or low polarity expression? Is it directly adjoined to why? Its position seems relatively high, given that it occurs adjacent to why. However, this may only be an illusion, seeing as the intervening structure (aside from Neg) between Why and V goes silent.

An observation that will surely be relevant in understanding the status of not in Why-VP is that it has an interesting and unexpected scopal interaction with floated quantifiers. When negation and universal quantifiers interact, the result is often an ambiguity, as in (82):

(82) All of the students didn’t complain.

But in Why-not-VP, the quantifier is unambiguously interpreted as taking wide scope, despite the fact that its surface position (to the right of and below negation) would lead one to expect that it should scope lower than not. Consider the following exchange:

(83) Speaker A: Let’s all go to the movies!
    Speaker B: Why not all go to the park?
The surface scope reading of Speaker B’s utterance (not > all) would be interpreted as, *why don’t some of us go to the park*, but the inverse reading (all > not) seems to be the only available possibility, with the interpretation: why don’t all of us (collectively) go to the park? The fact that surface scope interpretation seems completely ruled out is peculiar, indicating that the expression of negation in Why-VP should not be taken to be sentential negation, or that which we typically see in regular declaratives.

Given its low-scoping properties, we might think that the negation appears below the null nonfinite T, despite the fact that it occurs above *all* in (83), which is presumably in spec-TP. However, this would be abnormal in the context of quantifier float, considering that floated *all* is interpreted in its surface position:

(84)  a. The children all didn’t like the soup.
     b. The children didn’t all like the soup.

(84a) only has the surface scope reading, where every child in the relevant set did not like the soup, and negation in (84b) similarly takes surface scope, with the interpretation that some of the children didn’t like the soup, and the implicature that some did. The interpretation in (84b) is the one we should get for the case in (83). Interpreting *not* as low in Why-*not*-VP is not correct then. Instead, an uninterpretable high negation, immediately below the left-periphery and above T, in the sense of Zeijlstra (2008) seems more appropriate, an element which should be available for selection if it exists. Recall that NPIs are licensed in Why-VP, but unexpectedly, they are not licensed in Why-*not*-VP:

(85)  a. *Why not do a damn thing about it?*
     b. *Why not lift a finger?*
     c. *Why not finish any of my homework?*

NPIs are generally licensed in Wh-questions under conditions that are at present poorly understood (e.g. *Why do we have to lift a finger?*), so the observation that NPIs are licensed in Why-VP with no negation is not as surprising as the observations of (85). If the overt negation were simply uninterpreted, then we might be in a better position to understand the patterns in (85).
There is another point of comparison which might prove useful in understanding these effects. The interpretation of Why-not-VP is often rhetorical, encoding a bias for the positive version of the proposition embedded under Why, which might contribute to its inability to license NPIs. A similar phenomenon shows itself in the form of Suggesterrogatives, in which why in conjunction with an overt expression of negation and present tense combine to affect a suggestive interpretation (Francez, 2017).

(86) Why don’t you fix the sink?

It is not possible to encode a suggestive interpretation with for what reason or how come:

(87) a. #What reason don’t you fix the sink for?
    b. #For what reason don’t you fix the sink?
    c. #How come you don’t fix the sink?

Example (86) is the only case that can actually have the force of a suggestion. Example (87a) and (87b) don’t sound particularly well-formed to me, and (87c) can only ask for the reasons for not fixing the sink. Specifically, (87) is not ambiguous in the way that (86) is.

Altering the status of tense or polarity strips (86) of its suggestive force:

(88) a. Why didn’t you fix the sink?
    b. Why do you fix the sink?

Suggesterrogatives seem to pattern closely with Why-not-VP. The suggestion can only be interpreted in the root clause, there aren’t quantifier-negation scope interactions, and NPIs cause the structure to lose its suggestive force.

(89) a. Why don’t you say John likes Mary? \textit{Root clause interpretation only}
    b. Why not say John likes Mary?

(90) a. Why don’t we all join a band? \textit{All > Not only}
    b. Why not all join a band?
a. #Why don’t you eat any of your food? Suggestive interpretation lost
b. *Why not eat any of your food?

The expression of negation in Why-not-VP is out of the ordinary, but taken together with the possible parallel behavior of suggesterrogatives, and given that uninterpretable negation is a possibility in English, these facts may become at least a little less mysterious. It is not clear what the status of negation here is, but it certainly does not seem to be in its canonical position in English, below T. It is either some kind of expression of high polarity, whose interpretive properties are in some way distinct from the expression of low polarity, thus is unable to license NPIs, or it is directly adjoined to why. Direct adjunction to why could pose problems for an analysis that would want to unify Why-not-VP and suggesterrogatives, given the intervening do in suggesterrogatives. However, teasing these possibilities apart should be a point for future research.

7.3 Properties of the Null Subject

I begin here to characterize the null subject of Why-VP in the pursuit of a more precise characterization of its featural makeup. In what follows I point out that the null subject of Why-VP has a cluster of properties which lend itself well to the analysis that the subject is big pro, which we would expect given the similarities between Why-VP clauses and wh-infinitivals that I have presented in the previous section. In its broadest characterization, the subject in Why-VP appears to be interpreted as arbitrary in most cases, though sometimes has a specific reference. Further, the subject must be animate and construed with agentivity. I argue that these properties can be understood in the context of an analysis under which the null subject in Why-VP is a flavor of pro, the subject often associated with control structures.

7.3.1 Null Subjects

Null subjects have generally been categorized into two broad groups; (little) pro and (big) pro, which have very different distributions. The category pro is active in Romance languages, which exhibit pro-drop. In these languages, the subject of a finite
clause can be null, where the verb shows agreement. Little pro has been argued to be the manifestation of interpretable features on T, which allows T to be referential without the overt realization of a DP pronoun (Holmberg 2005). English is famously not a pro-drop language, requiring all finite clauses to have overt subjects, and crucially lacking interpretable D features on T.

One of the only clause-type in which pro has been argued to be active is imperative clauses (Zanuttini et al. (2012) a.o.) in English. It is argued that the combination of certain functional heads in imperatives allows T to be interpretable without the overt realization of a DP. It is true that the subject in Why-VP will also be licensed by a particular null functional head, which might in some sense mirror some of these more modern accounts of pro.

On the other hand, pro is the kind of null subject that is active in various kinds of infinitival Control structures. Typically, pro is bound by a DP which c-commands it; this is often referred to as Obligatory Control (OC). Alternatively, there are some clauses in which there is a null subject that is not obligatorily bound by a c-commanding DP. This is referred to as Non-Obligatory Control (NOC). In NOC configurations, the null subject is optionally interpreted on the basis of an overt DP in the clause or the discourse but is otherwise generic (Barrie 2007; Holmberg 2005).

(92)  

a. Johni likes [PROi to watch TV]. \hspace{1cm} OC PRO

b. To John’si disappointment, [PROi/arb seeing the fireworks] was impossible. \hspace{1cm} NOC PRO

In (92a), pro is obligatorily bound by John in the matrix clause, which c-commands it. In (92b), John is optionally identified with the external argument of the verb see. Otherwise, the external argument is interpreted as generic. In other configurations, this generic or arbitrary interpretation is the only possible interpretation for pro. Consider:

(93)  

In (93), it would be odd to construe John as the interpretation of pro. Instead, the interpretation is arbitrary. The pro in (93) above is often referred to as pro-arb.
There is debate in the literature about whether Implicit Control, that is, apparent Control from an implicit argument of a predicate, is necessary for the licensing of pro-arb. However, it is not clear in (93) above that there is any predicate with an implicit argument that could be acting as the controller for pro.

Given that there seem to be several parallels between Why-VP and infinitival clauses laid out in Section 7.2, it seems reasonable to pursue parallels between the subject of Why-VP and the subject in infinitival clauses, pro. It is also the case that the analog of Why-VP in other languages makes use of infinitival forms of the verb, obscured in English by its morphological quirks.

Why-VP is crucially tenseless in the sense that finite elements like overt modals and past/present marking render Why-VP ungrammatical. This indicates that there might be something defective about T both in infinitival clauses and in Why-VP. Infinitival T, to in English is characterized by its inability to assign Case and partake in agreement with a DP, these are the conditions which make it defective, in a morphosyntactic sense. This kind of defective environment is just the kind that licenses the silent subject pro. It is possible that whatever occupies the A-position in Why-VP, be it a null T or some other null functional head which hosts the covert modal, shares some of the features associated with infinitival T, thus it is unable to assign Case, licensing pro.

In the following sections, I will provide data exhibiting parallels between the subject of infinitival clauses and the subject in Why-VP.

7.3.2 Controlled PRO

Why-VP has a pseudo-agentive requirement identified for some Control structures (Lasnik (1992)). In OC structures, pro must be interpreted relative to its overt counterpart in the clause above. Some of the verbs that embed infinitival clauses with OC pro must take animate subjects capable of having agency. For example, try is such a verb. Non-human subjects of try are possible only when personified as being construed as possessing volition. Consider:

(94) The car tried pro to start (but it just wouldn’t).
Even if the matrix clause hosts a human subject, the infinitival clause embedded under *try* cannot host a verb which is non-agentive in its semantics:

(95)  
   a. John tried [PRO to visit Bill.]
   b. *John tried [PRO to resemble Bill.]
   c. John tried [PRO to deliver good news.]
   d. *John tried [PRO to receive good news.]

It would seem that *pro* as the subject of the infinitival clause above cannot serve as the subject of a verb that does not assign the agent theta-role to its external argument (like *resemble* and *receive*). The same restriction is observed for the subject of Why-VP:

(96)  
   a. #Why resemble Bill?
   b. #Why receive bad news?

The only felicitous reading that I can intuit is a coerced one where the addresssee has control over whether they resemble Bill, or receive bad news, but it is not an immediately natural reading, especially without context.

However, Lasnik reports in his endnotes, following a reviewer’s comment that theta-role assignment may not be the relevant constraint at work here, rather a constraint on event structure. Note the grammaticality of the following:

(97)  
   a. I tried to receive the good news #(with good grace).
   b. I tried to suffer the insults #(good humoredly).

This would suggest that theta-role assignment is not crucial to diagnosing whether or not controlled *pro* is licensed in a given structure. Why-VP fragments behave similarly:

(98)  
   a. Why not receive the good news with good grace?
   b. If you can suffer the insults good-humoredly, why suffer them angrily?

Why-VP, then, patterns with controlled *pro* in that the event or state of affairs denoted by the vP of the controlled clause must be thought of as being under the control, in some sense, of the individual denoted by *pro*. 

56
What Why-VP and the subject of the infinitival clause embedded under try have in common is that the infinitival clause requires the referent of its subject to be evaluated with respect to some goal. Not all predicates that embed infinitival clauses are sensitive to this semantic characterization of the subject. For example, want does not require the subject of its embedded clause to be construed with agency:

(99)  
(a) I want to receive good news.
(b) He wants to resemble his dad.

We will predict that if both Why-VP and embedded wh-infinitivals contain the teleological modal, which is goal-oriented, that wh-infinitivals should uniformly require construed-agency. This also seems to be correct:

(100)  
(a) I know when/where to receive good news with good grace #(and when/where to gloat).
(b) I know what/who to find under the couch #(and what/who to find in the closet).

Embedded wh-infinitivals also require construed agency – though a manner adjunct as in (100a) is not enough to resolve the oddity. A teleological modal will require the subject to be interpreted with respect to a possible or necessary course of action in pursuit of some goal, which is what contributes to the agentivity restriction. For both Why-VP and wh-infinitivals adding contextual clues which imply that the subject has a choice, whether it be in manner or in some alternative course of action will absolve the initial oddity with verbs which don’t assign agent theta-roles. These parallels are expected under my analysis in which Why-VP contains the teleological modal found in embedded wh-infinitivals.

The implicit subject of Why-VP structures thus seems to share important interpretive properties with the null subject of control structures, and with embedded wh-infinitivals in general. However, an obvious and crucial difference between Control structures and Why-VP is that Why-VP is crucially a root phenomenon. There is no embedding predicate which hosts a binder for pro in Why-VP. This
means that the subject in Why-VP is tied to the discourse in a way that infinitival clauses in OC structures are not.

In the most basic characterization of the subject in Why-VP, the sense is that what we are dealing with is a minimal pronoun whose interpretation is shaped in important ways by the context it appears in. Why-VP needs a kind of \( \text{pro} \) which does not require a binder but whose properties are fixed by its inherent semantics and the interaction with the pragmatic environment.

### 7.3.3 PRO-arb and Impersonal Interpretation

As has been often noted, Why-VP can and often does get a generic interpretation. Assuming that \( \text{pro} \) is the right syntactic characterization of the subject in Why-VP, we would actually expect to observe a generic or arbitrary interpretation given that an arbitrary flavor of \( \text{pro} \) is well-attested.

Landau (2013) characterizes \( \text{pro-arb} \) as obligatorily human. This is generally a property of impersonal pronouns (Chierchia 1995). The subject of Why-VP need only be animate, which will allow it to be construed with agentivity. However, when the subject of Why-VP is interpreted as generic, it seems to only be human (e.g., *Why start now, Why take Structure of Japanese, Why wait?*). In certain cases, \( \text{pro-arb} \) has been thought to be the result of Implicit Control – that is, controlled from an implicit argument (Landau 2013; pg. 305). But in the case of Why-VP there is no embedding environment in which such an implicit argument could be projected and thus there would be no potential implicit controller for \( \text{pro} \). Instead, we might pursue the line of thinking that the subject in Why-VP is a covert version of an impersonal pronoun found in many Romance and Germanic languages. Here are the properties of these impersonal pronouns laid out in Chierchia (1995), many of which are shared with the subject of Why-VP:

- **Property A:** quantificational variability in generic vs. episodic

---

19 I leave out **Property F:** variability with if/when clauses, as its unclear how to extend the generalization to Why-VP.

20 Generic here will mean having a universal force; i.e., interpreting the subject as *anyone*. Episodic will refer to a specific event, and get an existential interpretation; i.e., there is someone for whom this is true.
**Property B:** $si$ cannot antecede overt pronominals and pro

(102) "Why _i leave your dog and you_i punish it?"

**Property C:** $si$ can antecede reflexives and reciprocals.

(103)  

(a) Why concern oneself with such matters?

(b) Why criticize each other?

**Property D:** $si$ can control.

(104) Why choose to cause more problems?

**Property E:** $si$ can antecede itself.

(105) Why _i leave your dog and _i punish it?

The subject in Why-VP certainly seems to share several grammatical and interpretive properties with impersonal based on the characterization given above. Of particular interest is example (102), which suggests that the subject in Why-VP satisfies Property B: impersonals like Italian $si$ cannot antecede overt pronominals other than itself. However, consider the example below, which challenges this point:

(106)  

(a) Why _i say that they_i like cabbage?\textsuperscript{21}

(b) Why say that one likes cabbage?

If the subject in Why-VP were always a kind of covert impersonal pronoun we should not observe (106a) to be possible, especially given an analysis that impersonals are uniformly indefinites (Cinque (1988); Chierchia (1995)).

\textsuperscript{21}There is some variation among speakers who accept examples like these. One speaker, for whom this is bad, notes that examples such as, one should only take courses that they like, are also bad.
The other possibility is that the subject in Why-VP is a definite impersonal in the sense of Malamud (2006), which is the kind of impersonal that can provide an antecedent for overt pronominals, though they rarely do. Malamud argues that definite impersonals are the 3rd person plurals like exclusive they in English, which refers to some unspecified group of people. Interestingly, in Russian, this kind of impersonal must be null. The subject in Why-VP certainly sometimes appears to have these definite impersonal features, but not always. Recall from earlier sections that the subject in Why-VP can bind reflexives varying across all person number and gender featural combinations:

\[(107) \quad \begin{align*}
&\text{a. Why make myself unhappy?} \\
&\text{b. Why subject herself to any more scrutiny?} \\
&\text{c. Why make ourselves slaves?} \\
&\text{d. Why concern yourself with such matters?}
\end{align*}\]

Why-VP cannot exclusively be an arbitrary pronoun. It seems that like NOC structures in (92b) or the 3rd person pro in Finnish described in Holmberg (2005); Holmberg et al. (2009)), the subject in Why-VP can optionally be arbitrary/generic but in the right contextual conditions can have a specific referent. The conclusions to be drawn here is that the subject in Why-VP certainly shares many features with impersonal pronouns laid out in Chierchia (1995), but differs in interesting ways. Namely, the subject of Why-VP can antecede a pronominal in an embedded clause, which is not possible for true impersonals. These facts would suggest that while the subject of Why-VP can be a covert impersonal pronominal like pro-arb, this is not its exclusive form. Under what conditions the subject can be specific or impersonal would be an interesting project for future work.

### 7.3.4 PRO in Interrogative Complements

There is some debate about the status of pro in interrogative complements, or what I have been calling wh-infinitivals. Pro in these structures has often been linked to so-called Non-Obligatory Control (NOC) structures. The properties of NOC pro
are presently, poorly understood. The defining characteristic of NOC pro is that it occurs everywhere that OC cannot (Landau 2013). The relevant observation for interrogative complements is that pro can be bound by a matrix DP that c-commands it, an uncontroversial OC structure, but pro can also be interpreted as arbitrary or generic in that same structural configuration. Note the following:

\( (108) \)  

a. John knows how [PRO\(_\text{arb}\) to fly a kite].  
b. The sign says where [PRO\(_\text{arb}\) not to smoke]. [Barrie (2007: ex.9)]

The status of control in interrogative complements as in (108) is thought to be an instance of NOC, given that John does not obviously bind pro in the arbitrary interpretation. Landau (1999) argues that control into interrogative complements is actually an instance of partial control, a subtype of OC, and this is what contributes to the possibility of an arbitrary interpretation in (108a). For (108b), Landau suggests that the implicit goal argument of say will obligatorily control pro.

On the other hand, Barrie (2007) argues that (108) displays NOC when interpreted as arbitrary, though he actually considers the interpretations to be distinctly generic, rather than arbitrary. In this account, the arbitrary/generic interpretation in (108a) is an instance of generic control, whereby a generic operator binds the null subject pro\(_\text{gen}\). Since John is not involved whatsoever in the binding of the null subject in the interrogative complement of know, Barrie takes control into interrogative complements to be optionally non-obligatory, differing from Landau.

The generic interpretation of the subject in Why-VP clearly has no potential clause-internal binder which could partially control it, casting doubt on an analysis on which wh-infinitivals must uniformly be derived via partial control. However, an interesting parallel that emerges between the subject of embedded wh-infinitivals and Why-VP is that once a non-arbitrary reflexive occurs in the domain of an interrogative complement, the possibility of a generic reference is impossible:

\( (109) \)  

a. John knows how to get himself ahead.  
b. Why put himself in a position to lose?
In (109a) above, pro is obligatorily interpreted as co-referent with John. This is parallel to the situation in Why-VP. When a reflexive is present, the interpretation of the subject is often anchored not to an upstairs DP, but to the discourse in some way. When there is no reflexive, the interpretation of the subject can be generic or made more specific, depending on the context. This flexibility and similar rigidity in interpretation for the subject of wh-infinitivals and Why-VP gives us more reason to believe that these structures are related.

Investigating further the interpretive properties of Why-VP may reveal more about the availability of arbitrary or generic interpretations for pro, thus casting light on the availability for such an interpretation of wh-infinitivals. I see, at present, two plausible paths forward in terms of analyzing the subject of Why-VP. One possibility would be to say that pro in Why-VP is an instance of discourse control, which is a subtype of NOC, and has been documented for constructions like the following:

\[(110) \text{Mary was exhausted but content. [PRO Having dedicated herself to this project the whole summer], it was now over.} \quad \text{[Landau (2017); ex.15d]}
\]

Contextual factors regarding saliency contribute to the interpretation of pro across sentence boundaries. Clearly this seems promising given that Why-VP is its own free-standing clause in the discourse and is not embedded. However, it’s not clear how an analysis along these lines could be extended to embedded wh-infinitivals.

As an attempt to preserve Landau’s arguments for wh-infinitivals as an instance of OC, and in a pursuit of unifying properties of the subject in Why-VP and wh-infinitivals, we might propose as a second possibility that Why-VP actually is an instance of OC, whereby the implicit argument of the teleological modal – that is, the individual whose goals are at issue obligatorily controls the subject of Why-VP. This kind of analysis entails that we always identify the subject of Why-VP as the person whose goals are salient in the context. This characterization seems to be on the right track. As an empirical matter, the interpretation of the subject in Why-VP is always evaluated with respect to someone’s goals – the holder of the relevant goals thus serves as the interpretation of the subject. Consider the following:
Mary wants to make the company more environmentally friendly. John doesn’t agree that this should be a company priority. This has caused some uncomfortable friction in the workplace for both of them. But, [given Mary’s goal to make the company more environmentally friendly] why PRO quit now?

It seems plausible that in light of Mary’s goals, John might consider quitting. But if Mary’s goals are those with respect to which the modal is being evaluated, the subject in Why-VP above cannot be interpreted as referring to John. While it is possible to interpret John as the subject in Why-VP, we would need to consider John’s goals, i.e., given that John’s goal is to have a job, why quit now?

We might also understand the variability in wh-infinitivals as a product of whose goals are being evaluated. So in an example like the following:

(112) I know who PRO to talk to at the party. [Goal: Become popular]

There are two possible interpretations of the goal above. One would be, given my own goal (the speaker’s goal) to become popular, I know who I need to talk to. However, there is another reading: given a general goal of becoming popular, I know who (for any person) they should talk to. It is my intuition that the speaker could know two different groups of people that would satisfy the goal, depending on the interpretation of PRO.

I abstain from commenting on whatever the syntactic mechanisms are that contribute to the arbitrary interpretation above, but suggest as a point of future research that probing the possibilities of control by an implicit argument of the modal may let us understand the variable interpretation of PRO for both Why-VP and wh-infinitivals. A precise account of this is certainly outside the scope of this paper.

8 Conclusion

In my syntactic account, I have argued that Why-VP is crucially infinitival in nature, containing a null nonfinite T hosting the covert modal found in wh-infinitivals. This analysis let’s us understand the necessary, pervasive, and variable modal interpretation. The modal, being fundamentally teleological, affects the interpretation of the
subject, requiring it to be construed with agentivity. These restrictions on interpretation of the subject certainly could not be accounted for if analyzed as ellipsis. It is also crucial to capture the infinitival nature of Why-VP given that the modal really seems to be different in some important ways from its finite paraphrases, especially with respect to aspect. The availability of the generic or arbitrary interpretation can also be linked back to the covert modal both in Why-VP and wh-infinitivals, which both are variable in being interpreted as specific or arbitrary. More certainly needs to be said about the interaction between the covert modal and the interpretation of the subject, but this seems like a promising step forward in terms of rethinking the possibility of arbitrary and specific interpretation in embedded wh-infinitivals.

Furthermore, analyzing *why* as a head lets us understand the strict locality constraint characteristic of Why-VP and other special why-questions like suggesterrogatives. We also understand why this particular kind of bare infinitival clause is specific to *why* – *why* is the selector of the crucial covert modal. In adopting a Bare Phrase Structure analysis, we assume that if *why* selects, then it will project, and create a WhyP, we might then understand that its inability to be embedded is linked to its reduced phrasal status – it is not a CP, and is thus not selected by the verbs which select CP complements.

There are certainly some remaining and open questions here. Namely, the subject of Why-VP really does seem to be tied to the discourse in important and interesting ways – this link with the discourse its entities also seems to be mediated by the teleological modal in ways that are likely systematic but at present, poorly understood. A more precise investigation of this modal, its aspectual properties and its interaction with the subject will certainly provide a starting point for future work on this construction.
References


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