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Force mismatch in clausal ellipsis

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Abstract: Recent studies reveal that the values of finiteness, tense, modality and polarity in a clause elided under sluicing may be distinct from their correlates in the antecedent clause. Focusing on *CP ellipsis* in Hebrew (an instance of Argument Ellipsis), we first demonstrate that it is distinct from both Null Complement Anaphora and (null) pronominalization, and then show that the values of *force* (declarative, imperative, interrogative) can be distinct between the antecedent and the missing clause as well. Possible mismatches are bidirectional, ruling out "subset" theories of identity in ellipsis and challenging certain accounts of the semantics of polar questions. Implications for the general theory of ellipsis are discussed and evaluated.

Keywords: Argument Ellipsis; illocutionary force; parallelism; polar questions

1 Introduction

Recent studies reveal that the range of permissible mismatches between the target of sluicing and its antecedent clause is wider than traditionally assumed. Thus, alongside mismatches in finiteness (1a), already documented in Merchant (2001: 22), the values of tense, modality and polarity are also exempt from strict identity ([1b–c] are from Rudin 2019: 266, [1d] is from Anand et al. 2021: ex. [32]). Notably, the mismatches are not limited to morphological features and impact semantic interpretation as well (here and below, ellipsis is marked by shading and mismatched elements are boldfaced).

(1) a. I'**ll** fix the car if you tell me how [**to** fix the car].
b. Your favorite plant **is** alive, but you can never be sure for how long [it **will** be alive].
c. Sally said that customers **should** be given lower rates, but Susi said it's hard to see how [customers **could** be given lower rates].
d. 'Coach O'Leary **doesn't** do things without telling you why [Coach O'Leary **did** those things],' Hamilton said.

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Current theorizing only begins to address the problem of sanctioning these mismatches while still forcing identity on those components of the ellipsis site that require identical correlates. Rudin (2019) proposes that only the "eventive core" – vP and its constitutive heads – falls under the condition of syntactic identity, the rest being up to pragmatics. Anand et al. (2022) impose identity on the *Argument Domain*, an extension of Rudin's eventive core that is meant to subsume any thematic domain (including small clauses). Once again, material outside that domain is exempt from syntactic identity and is only subject to evaluation for pragmatic felicity, coherence etc. Ranero (2021) maintains a traditional view of parallelism domains, but weakens identity above the root level to *featural non-distinctness*. Finally, taking up the semantic-pragmatic conditions on sluicing, Kroll (2019) modifies the Givenness Condition in a way that allows it to take into consideration local context updates that make salient certain propositions that go beyond the content of the antecedent TP.

These different proposals overlap in empirical scope to a large extent, hence finding decisive evidence to distinguish among them is no trivial task. The present study advances this goal by focusing on one particular area of mismatch under clausal ellipsis. In Section 6, I return to evaluate the different theories of mismatch in ellipsis against the data uncovered in this area.

Let us call mismatches in functional content above the vP level *functional mismatches*, taking this term, on its interesting sense, to include interpretive mismatches between the antecedent and the elided TP. In addition to finiteness, tense, modality and polarity, clauses are specified for illocutionary force (henceforth, simply *force*), hence one may ask whether force mismatches are also witnessed under sluicing. Merchant (2001: 22) and Rudin (2019: 267) suggest that this is so, citing (2a–b) and (2c), respectively, as evidence for "illocutionary mismatch" between imperative and interrogative force.

(2) a. Eat (something). if you can figure out what [to eat]!

b. 'Cut it loose', she said.
I don't know how [to cut it loose].

c. Always save a little from each paycheck. Once you're older, you'll understand why [you should always save a little from each paycheck].

However, whether such examples are informative is far from clear. Force is encoded above the TP level (Rizzi 1997), hence outside the ellipsis domain inspected for identity with the antecedent. Indeed, analyses of the syntax of imperatives commonly locate the imperative force in C (Alcázar and Saltarelli 2014; Barbiers 2007; Han 2000; Medeiros 2015). On this understanding, the fact that force mismatches are attested in sluicing is no more remarkable than the fact that they are attested in VP ellipsis.

(3) a. A: Give me your gun!
B: Why would I?
b. A: I'd like to taste this jalapeño pepper.
B: Don't!

In fact, finiteness and polarity mismatches are commonly found in VP ellipsis, as also seen in (3a–b), without raising any issue for discussions of syntactic or semantic identity.[1] Nothing much changes if we locate the imperative force in a dedicated Jussive projection between TP and CP (Zanuttini 2008). Sluicing may still spare the JussP layer, making it invisible to identity calculation. That sluicing must be able to apply across intervening projections is independently established (Landau 2020a; Marušič et al. 2018; Temmerman 2019).[2]

In short, force mismatches in sluicing, as in (2), present no special problem for studies of identity in ellipsis.

This leaves us with an open empirical question: Can force be mismatched under ellipsis? Given that TP ellipsis cannot decide the issue, one needs to turn to bigger-size ellipses. In fact, CP ellipsis would be the natural testing ground. In languages with a productive process of Argument Ellipsis (AE), CPs can be also be targeted for deletion.[3] Can CP ellipsis display any featural mismatch at the C level? In particular, can antecedent and elided CPs differ in grammatical *force*?

This question, to my knowledge, has never been addressed. A rare (and single, as far as I can tell) reference to this possibility is Lee's (2014: 13–14) observation that in Korean, an interrogative CP complement (expressing a polar question) can undergo ellipsis even when its antecedent is declarative. Notice that the elided clause (shaded

1 These mismatches are obviously relevant to the general pragmatic felicity of VP ellipsis, but nobody takes them to fall under the identity condition. Note that semantically-based theories of identity in sluicing often take *CP* to be the domain of parallelism (AnderBois 2011; Barros 2014; Barros and Kotek 2019; Weir 2014). These theories face the challenge of abstracting away from the force semantics of the antecedent and using its propositional content only to construct the entailement that licenses sluicing. While space forbids me from considering all these theories in detail, I return in Section 6.2 to discuss the implications of force mismnatch under clausal ellipsis for two specific analyses within the semantic tradition.

2 Alternatively, if JussP is included in the parallelism domain, its absence from the target of ellipsis in (2) makes that target nondistinct from its antecedent, satisfying the weaker notion of identity, as proposed in Ranero (2021:186). Given the Force-in-C option, however, which simply excludes Force from the parallelism domain, there is no compelling reason to appeal to nondistinctness. See Section 6 for further discussion of Ranero's account.

3 Clausal AE has been established in Japanese (Fujiwara 2022; Sakamoto 2020; Saito 2007, 2017; Takahashi 2014, 2020), Korean (Lee 2014; Park 2013; Park and Yoo 2013; Sakamoto 2020), Chinese (Cheng 2013; Sakamoto 2020), Hindi, Bangla and Malayalam (Simpson et al. 2013), Portuguese (Cyrino and Matos 2006), Persian (Sato and Karimi 2016), Egyptian Arabic (Soltan 2020) and Hebrew (Landau 2023).

below) is headed by *ci*, a [+Q] complementizer, while its antecedent clause is headed by *ko*, a [–Q] complementizer.

(4) A: na-nun [Cheli-ka Swumi-lul salangha-n-ta-**ko**] sayngkakha-y.
I-TOP Cheli-MOM Swumi-ACC love-PRES-DECL-C think-DECL
'I think that Cheli loves Swumi.'
B: nay-ka Yenghi-eykey [Cheli-ka Swumi-lul salangha-nun-**ci**]
I-NOM Yenghi-DAT Cheli-MOM Swumi-ACC love-REL-C
mwulepoasse.
asked
'I asked Yenghi (if Cheli loves Swumi)'

Lee (2014), however, merely notes this fact without studying it any further. An immediate concern is whether the missing CP in (4B) is genuinely the outcome of ellipsis or some other null argument strategy. Beside AE, Korean employs Null Complement Anaphora (NCA) and, quite extensively, null pronouns. Indeed, Ahn and Cho (2021) analyze the clausal gap in (4B) as a null pronoun.

Examples parallel to (4) are found in Hebrew too; *še-* 'that' is the declarative complementizer and *im* 'if' is the interrogative one.

(5) at ta'ant **še**-Gil axra'i la-kišalon,
you.SG.F claimed that-Gil responsible to.the-failure
any rak ša'alti [**im** Gil axra'i la-kišalon].
I only asked.1SG if Gil responsible to.the-failure
'You claimed that Gil was responsible for the failure, I only asked whether he was.'

The main goal of the present paper is to demonstrate that the clausal gaps in general and in (5) in particular can be the outcome of genuine ellipsis, indeed, the same kind of AE previously studied in the language (Landau 2018, 2023, to appear). This will be achieved by using the strongest kind of evidence for internal syntactic structure in an ellipsis site – the possibility of overt extraction out of it. Notably, overt extraction out of clausal gaps is impossible in Korean (Saito and An 2010; Sakamoto 2020), hence the greater freedom of Hebrew, in this respect, provides novel, nontrivial support for the validity of the AE analysis of clausal gaps.[4] More broadly, the literature on clausal drop has mostly assumed that they are a species of NCA (Depiante 2001, 2019), an implicit argument of sorts, with no internal syntactic structure. The evidence from Hebrew, demonstrating the systematic possibility of extraction out of a missing clause, thus serves as an important amendment to that literature, restoring the full

4 Overt extraction out of clausal gaps in Hebrew has been documented in Landau (2023: ex. [73]–[74]).

parallelism between nominals and clauses: Both can go missing by NCA, (null) pronouns *or* ellipsis.

The structure of this paper is as follows. Section 2 lays out the background for this study by showing that Hebrew offers reliable morphosyntactic diagnostics to distinguish NCA from ellipsis. Section 3 presents the core data: embedded polar questions can be antecedents for ellipsis of declarative complements (Section 3.1) and vice versa (Section 3.2). Section 4 argues that these mismatches genuinely occur internally to the ellipsis site (CP), by ruling out a potential analysis of the data in terms of TP deletion. Section 5 shows that force is not alone in being exempt from identity under ellipsis, and that clausal ellipsis tolerates other functional mismatches – in modality, finiteness, tense and polarity. Section 6 evaluates current theories of mismatch in ellipsis, either couched in syntax (Section 6.1) or in semantics (Section 6.2), against the Hebrew data, reaching the conclusion that the "subclausal syntactic identity" theory offers the superior explanation of the data. Section 7 concludes.

2 Background: identity and extraction

The major claim advanced in this study is that force mismatch is tolerated under clausal ellipsis in Hebrew. For this claim to be of theoretical interest, two preliminary points must be established: First, identity does constrain ellipsis (and specifically AE) in Hebrew, so that attested *departures* from identity are not trivial. Second, complement clauses in Hebrew can go missing by genuine ellipsis (surface anaphora) and not just by NCA (deep anaphora).

As a first indication that ellipsis operates in the domain of clausal complementation in Hebrew, observe that in the presence of a local antecedent, *any* propositional verb may occur with a silent complement. As noted in Landau (2023), in this respect these missing clauses are different from NCA of the English type, which is lexically selective. While this claim obviously cannot be demonstrated with dozens of verbs here, it is without exception, to my knowledge. For example, lexically "rich" verbs that do not license NCA in English readily occur without a complement when an antecedent is present.

(6) Gil hitpa'er še-ha-proyekt šelo kibel hamon maxma'ot.
Gil boasted that-the-project his received lots.of compliments
Gam Ronit hitpa'ara ___.
also Ronit boasted
'Gil boasted that his project received lots of compliments. Ronit also did.'
(cf. **Ronit also boasted* ___).

Consider the identity requirement next. The most immediate way to appreciate identity effects in Hebrew AE is to examine the range of interpretations it tolerates. Consider a simple example.

(7) Gil haya mufta. Avi a'hav et ha-kelev šelo, aval Dani sana ___.
Gil was surprised.M.SG Avi loved ACC the-dog his but Dani hated
a. 'Gil was surprised. Avi loved Gil's dog, but Dani hated Gil's dog.'
b. 'Gil was surprised. Avi loved Avi's dog, but Dani hated Avi's dog.'
c. 'Gil was surprised. Avi loved Avi's dog, but Dani hated Dani's dog.'
d. * 'Gil was surprised. Avi loved Avi's/Gil's dog, but Dani hated a dog.'
e. * 'Gil was surprised. Avi loved Gil's dog, but Dani hated Avi's/Dani's dog.'
f. * 'Gil was surprised. Avi loved Avi's dog, but Dani hated Gil's dog.'

The missing object in the second conjunct must be lexically identical to its antecedent, *his dog*; hence, an indefinite interpretation (7d) is excluded. The elided pronoun must be referentially parallel to its antecedent too: Either both refer to some external antecedent (7a), or to the subject of the antecedent clause (7e) ("strict reading"), or each pronoun refers to its local subject ("sloppy reading"). All other mixed readings are excluded (7e–f).

Consider next identity effects with clausal ellipsis. Many verbs select either a DP or a CP complement. When occurring as antecedents for ellipsis, they must select the type of argument that is elided in the elliptical clause. To illustrate, just as in English, the verbs *hoxiax* 'prove' and *hifrix* 'refute' both select a DP complement, but only the former may select a CP complement instead. When the complements they select match in category, ellipsis goes through (8a), but when they do not match, it fails (8b).

(8) a. A: Abel be'emet hoxiax et ha-mišpat ha-ze?
Abel really proved.3SG.M ACC the-theorem the-this
'Did Abel really prove this theorem?'
B: lo, hu hifrix ___.
no he refuted.3SG.M
'No, he refuted it/this theorem.'

b. A: Abel be'emet hoxiax še-ha-mišpat ha-ze naxon?
Abel really proved.3SG.M ACC that-the-theorem the-this true
'Did Abel really prove that this theorem is true?'
B: * lo, hu hifrix ___.
no he refuted.3SG.M
('No, he refuted it/this theorem.')

We can understand these effects as corollaries of Chung's (2013) generalization, which requires lexical heads in the ellipsis site to have identical correspondents in

the antecedent. The paired DP and CP complements contain non-identical lexical heads, hence ellipsis fails.

Similarly, mismatches between DP and PP arguments in elliptical relations often produce ungrammaticality.[5] The verbs *xibev* 'like' and *te'ev* 'detest' take direct objects while the verbs *hitpa'el* 'was impressed' and *salad* 'was repulsed' take PP objects headed by *me-* 'from'.

(9) a. A: ani mexabev et ha-šxuna šeli.
I like.SG.M ACC the-neighborhood my
'I like my neighborhood.'
B: ani meta'ev / *soled ___.
I detest.SG.M / repulsed.SG.M
'I detest it/mine / *I am repulsed by it/mine.'

b. A: hi hitpa'ala me-ha-šxuna šelanu.
she impressed.3SG.F from-the-neighborhood our
'I like my neighborhood.'
B: hu salad / *te'ev ___.
he repulsed.3SG.M / detested.3SG.M
'He was repulsed by it / *He detested it.'

It is an important question, but one which I will not try to answer here, whether the identity condition violated in (8b–B) and (9a–B)/(9b–B) directly refers to syntactic categories, to semantic features, or to a combination thereof. While the examples approach semantic minimal pairs (e.g., *detest something* vs. be *repulsed by something*), it cannot be excluded that there remain subtle semantic contrasts, either between the elided arguments themselves, or between the containing VPs, which are responsible for the detected violation. What is crucial for our purposes is much more elementary: Hebrew AE displays an identity requirement of the sort familiar from other elliptical phenomena.

Turning to evidence of extraction from elided domains, we need establish two key points. First, the kind of CP ellipsis studied here, which is a surface anaphor, is a distinct phenomenon from Null Complement Anaphora (NCA, Depiante 2001, 2019), a deep anaphor. Second, the kind of remnants we focus on can only arise by movement from the ellipsis site and not by base generation outside of it. A question left for future research is what distinguishes languages *with* clausal ellipsis (like Hebrew, Portuguese, Japanese and Korean) from languages *without* it (like Spanish and English). Clearly, the fundamental parameter is [±AE], namely, whether or not

5 Whether they must do so is a topic for a separate study. It is possible that PP-ellipsis is tolerated with a DP antecedent if the elided P is semantically vacuous (e.g., a case marker); see Kim (1999) for some evidence from Korean.

the language has Argument Ellipsis in general (of which CP ellipsis is a special case); see Landau (2023: 837) for some preliminary speculations on this challenging question.

A fundamental distinction between NCA and surface anaphors concerns pragmatic control: Only NCA can be resolved by non-linguistic contextual information (Hankamer and Sag 1976). Typically, the most common predicates selecting clausal complements (e.g., *think, know*) license NCA, so their complement may go missing even without a linguistic antecedent.[6] However, many predicates do not license NCA, including some of those exemplified in the following sections. Consider two examples, one with a [−Q]-selecting predicate and another with a [+Q]-selecting predicate.

(10) a. *Context*: Dan and his wife Ana are new in town. They're busy fixing up their new apartment, when Dan realizes he needs to buy some stuff at the local hardware store. It is Sunday, and Ana is pretty sure the store is closed. But Dan is hopeful, so he goes to the store with their son. When they arrive, they see that the store is indeed closed. Dan (sighing):
'tov, ima hayta betuxa *(še-ha-xanut sgura).'
well mom was.3SG.F sure that-the-store closed
'Well, mom was sure *(that the store is closed).'

b. *Context*: Ana is planning to take her first 6-meter dive today at the pool. She approaches the edge of the diving board, then stops, unsure whether she can make it. Her brother Tom is watching from below. At that moment their mom calls Tom's phone. He speaks to her, holds up the phone and yells up to Ana:
'ima šo'elet *(im at holexet likfoc).'
mom asks.SG.F if you going to.dive
'Mom is asking *(whether you're going to dive.)'

The context of utterance makes salient the proposition (or fact) that the store is closed in (10a), and the question of whether Ana is going to dive in (10b). Still, this salient information cannot license NCA with the predicates *batuax* 'sure' and *ša'al* 'ask', indicating that at least for these predicates, a complement clause can go missing only by *surface* anaphora, i.e., clausal ellipsis, under identity with a *linguistic* antecedent.

Next, consider standard Ā-extraction in Hebrew. Not surprisingly, if a predicate governs a particular case marker or preposition on the argument it selects, that same particle will show up on the argument when it is extracted; movement simply carries along the particle. Call this property *morphosyntactic connectivity*.

6 Notice that this is no way implies that these predicates do *not* license clausal ellipsis of their complements. Barring stipulations, they should allow both options in languages with clausal AE.

(11) a. Mixal lakxa et ha-ugiya / *ba-ugia.
Mixal took.3SG.F ACC the-cookie / in.the-cookie
'Mixal took (*in) the cookie.'

b. et ha-ugia / *ba-ugiya, ani xošev še-Mixal lakxa.
ACC the-cookie / in.the-cookie I think.SG.M that-Mixal took.3SG.F
'(*In) The cookie, I think that Mixal took.'

(12) a. Mixal batxa ba-na'hag / *et ha-nahag.
Mixal trusted.3SG.F in.the-driver/ ACC the-driver
'Mixal trusted the driver.'

b. ba-nahag / *et ha-nahag, ani xošev še-Mixal batxa.
in.the-driver/ ACC the-driver I think.SG.M that-Mixal trusted.3SG.F
'The driver, I think that Mixal trusted.'

Like many other languages, Hebrew employs other Ā-dependencies, which crucially involve no movement. In Left Dislocation (LD), a bare DP occurs in the left periphery of the clause and is referentially linked to a pronoun in an argument position. It is the pronoun, rather than the left-dislocated DP, that bears whatever case marker or preposition dictated by the selecting predicate (Landau 2009, 2011).

(13) a. ha-ugia, ani xošev še-Mixal lakxa ota.
the-cookie I think.SG.M that-Mixal took.3SG.F it.ACC
'The cookie, I think that Mixal took it.'

b. ha-nahag, ani xošev še-Mixal batxa bo.
the-driver I think.SG.M that-Mixal trusted.3SG.F in.him
'The driver, I think that Mixal trusted him.'

Putting these facts together, a clear prediction emerges: Because morphosyntactic connectivity is associated with movement, and movement is associated with sensitivity to islands, displaced arguments will manifest morphosyntactic connectivity if and only if they manifest island sensitivity. Conversely, constructions where a bare left-dislocated DP is coindexed with a case/P-marked resumptive pronoun will not be island-sensitive. Indeed, the latter is a classical finding in the scholarship on Hebrew resumptive pronouns (Borer 1984; Doron 1982; Erteschik-Shir 1992; Keshev and Meltzer-Asscher 2017; Sells 1987; Shlonsky 1992; Sichel 2014). The contrast is illustrated in (14)–(15) with adjunct islands, but the facts are completely systematic across other island environments.

(14) a. * et ha-ugiya, Gil hitkašer kedey le'hazkir še-Mixal
ACC the-cookie Gil called.3SG.M in.order to.remind that-Mixal
tikax.
will.take.3SG.F
('The cookie, Gil called in order to remind us that Mixal should take.')

b. ha-ugiya$_i$, Gil hitkašer kedey le'hazkir še-Mixal
the-cookie Gil called.3SG.M in.order to.remind that-Mixal
tikax ota$_i$.
will.take.3SG.F it
'The cookie$_i$, Gil called in order to remind us that Mixal should take it$_i$.'

(15) a. * ba-nahag, Gil hit'acben biglal še-Mixal batxa.
in.the-driver Gil was.pissed.3SG.M because that-Mixal trusted.3SG.F
('The driver, Gil was pissed because Mixal had trusted.')

b. ha-nahag$_i$, Gil hit'acben biglal še-Mixal batxa bo$_i$.
the-driver Gil was.pissed.3SG.M because that-Mixal trusted.3SG.F in.him
'The driver$_i$, Gil was pissed because Mixal had trudted him$_i$.'

One final prediction concerns predicates that do allow NCA (alongside CP ellipsis). We expect NCA to be possible as long as no attempt is made to extract material out of the missing clause, since that clause is not syntactically present under NCA (Depiante 2001). This is confirmed below with the verbs *yada* 'know' and *hiskim* 'agree', both of which license NCA in Hebrew (the former selecting a finite complement, the latter an infinitive).

(16) a. *Context*: Tom is known for his wide collection of colorful hats. While waiting for him in a café, Ana and Maya wonder which one he will choose today. Ana thinks it will be the green hat, Maya thinks it will be the red one. Then Tom shows up with the green hat. Ana (victoriously):
(*et) ha-kova ha-yarok, yadati!
ACC the-hat the-green knew.1SG
'The green hat, I knew it!'

b. *Context*: Ana is on her way to help Tom move his apartment, when she meets Maya and asks her to come along and help her friend. Maya agrees and comes long; she does not know that the "friend" is Tom, who she particularly dislikes. When they get to the apartment and Maya sees Tom, she is visibly dismayed, and says to Ana:
(*le-Tom,) ani lo maskima.
to-Tom I not agree.SG.F
'I don't agree.'

The null complement in (16a) is most naturally understood as *that Tom will wear/bring the green hat*. Both verbs assign accusative case to their direct object, but strikingly, this case marker cannot appear on the initial DP *ha-kova ha-yarok* 'the green hat'. Given the above discussion, this implies that the DP does not originate in the null complement. In this case, the bare DP is a nonsentential phrase used to identify an entity in the utterance context (as in "Wow, a racoon!"). Clearly, it cannot

bear any (nondefault) case marking. In (16b), the null complement is most naturally understood as *to help Tom.* In Hebrew, *la'azor* 'to help' assigns dative case to its object, yet a dative-marked DP cannot appear in the sentence-initial position, again indicating that a movement derivation is blocked.[7]

The facts in (11)–(16) are just what we expect. The morphosyntactic signature of arguments is determined under a local syntactic relation with the predicates that select them. This relation may be subsequently altered by movement operations during the derivation, but such operations cannot "undo" the original morphosyntactic signature. Furthermore, no grammatical resources are available at the peripheral position where the left-dislocated DP is merged to endow it with any case or prepositional marking. Consequently, movement and non-movement dependencies reliably split in accordance with how they present the displaced lexical argument: The former preserves the morphosyntactic signature of the argument's base position, the latter strips it off. Because NCA provides no syntactic source for the displaced DP, that DP can (at most) appear bare, if licensed pragmatically at the beginning of the utterance. Any nondefault case or prepositional marking on that DP, on the other hand, would point to a movement derivation.[8]

These descriptive properties provide the necessary backdrop against which we should interpret the results of attempted extractions out of elided CPs, to be presented in the following sections. By using case/P-marked arguments, we will guarantee that genuine movement must have applied out of the ellipsis site; perforce, that this site must be syntactically complex, an instance of surface anaphora.

3 [±Q] Mismatches in clausal AE in Hebrew

This section presents the core evidence for the claim that AE tolerates force mismatch. In all the examples we will see, ellipsis is diagnosed and other null argument strategies are ruled out by acceptable extraction out of a clausal gap. Section 3.1 demonstrates

7 A bare DP would be licensed if we break Maya's utterance to two, highlighting the surprise or dismay effect.

(i) Tom! ani lo maskima.
Tom I not agree.SG.F
'Tom! I don't agree.'

8 See Fujiwara (2022: 97) for a parallel argument in Japanese, where focus movement out of an elided clause displays case connectivity with the base position. On further differences between topicalization and left dislocation in Hebrew, see Landau (2009, 2011) and Shlonsky (2014). In most of the examples to follow, the element topicalized out of the elided clause is contrastive, but this is not necessary, and simply reflects a common and natural setting for the relevant discourses.

that an interrogative CP complement can antecede ellipsis of a declarative CP complement, and Section 3.2 demonstrates the opposite pattern, where an interrogative CP is elided under parallelism with an antecedent declarative CP.

When considering these data, it is important to bear in mind a constant pragmatic caveat: The fact that extraction out of clausal gaps is acceptable in *some* cases does not imply that it should be acceptable in *all* cases. Evidently, parallelism computations always operate in the background of ellipsis resolution, and pragmatic felicity must be guaranteed before any questions of syntactic well-formedness can be fruitfully pursued. This is especially true of the kind of the data to be reviewed below, where extraction directly affects the nature of the contrast between the antecedent clause and the elliptical clause, and so constrains the range of lexical choice that can yield plausible focus alternatives. Even though clear examples of grammatical extractions can be constructed, establishing the case for syntactic structure in the ellipsis site, judgments are not totally uniform.

The data below have been collected from 10 native speakers of Hebrew. Examples marked as grammatical were judged acceptable at least by 8 of the 10 speakers, where "acceptable" ranges from "perfect" to "sort of OK, not great". Two important areas of greater variation were detected: One with *wh*-islands, which obtain (weakly) for some speakers but not for all speakers, a well-known feature of Hebrew syntax (Section 3.2); and tolerance to tense mismatch, which points to variability in accommodation (Section 5). Crucially, examples marked as ungrammatical were judged unacceptable by all informants.

3.1 $CP_{[+Q]} \rightarrow \sout{CP}_{[-Q]}$

A declarative complement can be elided under "identity" with an interrogative CP, where "identity" is understood modulo the mismatch in (illocutionary) force. The (a) examples below present the elliptical construction with its antecedent. In all of them, some constituent has been extracted from the elided declarative CP, which bears the characteristic case/prepositional marking licensed inside that CP. The (b) examples serve to verify that the predicates whose complements are elided in the (a) examples do *not* select interrogative complements. Thus, ellipsis in the (a) examples must have applied to a CP headed by $C_{[-Q]}$, *še-* 'that', even though its antecedent CP is headed by $C_{[+Q]}$, *im* 'if' (complementizers are boldfaced and ellipsis is shaded below).

(17) a. ani lo zoxer **im** hem nas'u le-yavan,
I not remember.SG.M if they travelled.3PL to-Greece
aval le-italya$_i$, ani dey batuax [**še**-hem nas'u t$_i$].
but to-Italy I quite sure.SG.M that-they travelled.3PL
'I don't remember if they travelled to Greece, but to Italy,
I'm quite sure they did.'

b. * ani dey batuax **im** hem nas'u le-italya.
I quite sure.SG.M if they travelled.3PL to-Italy
('I'm quite sure if they travelled to Italy.')

(18) a. Gil ša'al **im** hu yaxol le'haš'il mimeni bgadim.
Gil asked.3SG.M if he can.SG.M to.borrow from.me clothes
rak et ha-žaket ha-yarok$_i$ hiskamti [**še**-hu yaš'il
only ACC the-jacket the-green agreed.1SG that-he borrow.FUT.3SG.M
mimeni t$_i$].
from.me
'Gil asked if he could borrow clothes from me. Only the green jacket,
I agreed that he would.'

b. * hiskamti **im** hu yaš'il mimeni rak et ha-žaket
agreed.1SG if he borrow.FUT.3SG.M from.me only ACC the-jacket
ha-yarok.
the-green
('I agreed whether he would borrow the green jacket from me')

(19) a. lo yadua **im** Max nimlat gam me-Romania,
not known if Max escaped.3SG.M also from-Romania
aval me-Bulgaria$_i$ ze behexlet nirmaz [**še**-Max nimlat t$_i$].
but from-Bulgaria it definitely hint.PST.PASS that-Maxescaped.3SG.M
'It is unknown whether Max escaped from Romania too,
but from Bulgaria, it was definitely hinted that he did.'

b. * ze behexlet nirmaz **im** Max nimlat me-Bulgaria.
it definitely hint.PST.PASS if Max escaped.3SG.M from-Bulgaria
('It was definitely hinted if Max has escaped from Bulgaria.')

Notice that the English translations of the (a) examples employ extraction out of elided VPs, a standard piece of evidence for the syntactic presence of such VPs. By parity of reasoning, the missing CPs in Hebrew from which extraction has taken place are also present in the syntax. An additional interesting property of (18a) is that the elliptical clause (being [–Q]) differs not only in force from the antecedent clause

(being [+Q]) but also in modality: The deontic modal present in the antecedent clause is missing from the elliptical clause on its natural reading (the speaker does not express that s/he agrees that Gil has permission to borrow the green jacket).[9] Mismatches in modality are similarly attested in sluicing (Anand et al. 2021; Rudin 2019), suggesting that the two types of clausal ellipsis fall under the same general principles of parallelism (see Section 5 for further discussion).

Indeed, the examples in (17)–(19) manifest not only a mismatch in force or modality, but also in the lexical content of the extracted constituent and its correlate in the antecedent clause: *to Greece* versus *to Italy* in (17), *clothes* versus *the green jacket* in (18) and *from Romania* versus *from Bulgaria* in (19). These mismatches are entirely parallel to what we find in contrast sluicing and in contrastive fragments.

(20) a. She has many CATS, but I don't know how many DOGS.
(Merchant 2001: 36)

b. A: Did John eat a PIZZA for dinner?
B: No, a SALAD.
(Griffiths and Lipták 2014: 199)

On the "Move & Delete" analysis of these elliptical constructions, there appears to be a lexical mismatch between the focused correlate and the trace of the remnant/fragment (*CATS* and $t_{how\text{-}many\text{-}dogs}$ in [20a], respectively). Following focus-oriented approaches to ellipsis, Merchant (2001) restores parallelism in such cases by the mechanism of F(ocus)-Closure: All focus-marked constituents in the antecedent and elliptical domains are replaced by variables to which existential closure applies. Thus, at the semantic level where parallelism is checked, both the antecedent and the elliptical TPs in (20a) are translated as $\exists x.$*She has x*. In a similar vein, the contrastive locative PPs in (19a) are abstracted over and the resulting TPs are translated as $\exists x.$*Max escaped from x*.[10] Of course, the next question to ask is whether the semantic

9 (18b) has an irrelevant grammatical reading (facilitated by a pause before the *if*-clause), where the *if*-clause is construed as a conditional adjunct rather than as a complement of *hiskamti* 'I agreed', the latter being unexpressed, possibly a case of NCA. This reading can be paraphrased as "I agreed for Gil to borrow clothes from me, on the condition that he borrow the green jacket". It is quite different from the reading of the elliptical clause in (18a), where the agreement is granted to the borrowing of the green jacket *alone*.

10 There are recent alternative approaches to the invisibility of traces inside ellipsis sites to identity calculations. Ranero (2021: 207) restricts identity to elements *properly* contained inside the ellipsis site, hence traces of ellipsis remnants are ignored. In Saab (2022), the silence of traces and the silence of ellipsis sites reduces to the same PF operation (Bošković 2011; Chomsky 1995: 253; Landau 2020b). Identity is only calculated for elements that have yet to be silenced; but traces have already been silenced prior to ellipsis, hence are exempt from identity.

import of C itself – [+Q] or [–Q] – is also considered by the parallelism constraint. I return to this question in Section 4.

3.2 $CP_{[-Q]} \rightarrow \cancel{CP}_{[+Q]}$

Let us now examine the opposite case, where a declarative CP complement serves as antecedent for ellipsis of an interrogative CP complement. An immediate difficulty we must face is the status of extraction out of interrogative complements, which should produce a *wh*-island violation. Fortunately, *wh*-islands are rather weak in Hebrew, indiscernible to some (Keshev and Meltzer-Asscher 2019; Preminger 2010; Reinhart 1981); this is especially true of *how*/*if*-infinitival complements, which give rise to passable results under extraction.

(21) (?) et mi lo yadat im/eyx le'ha'ir?
ACC who not knew.2SG.F if/how to.wake.up
'Who didn't you know whether/how to wake up?'

Indeed, some Hebrew speakers consistently judged extractions from polar question complements somewhat marginal while others fully accepted them; this split is marked below as '(?)'. Importantly, I will show that clausal complements replaced by deep anaphors produce distinctly ungrammatical results under extraction *for all speakers*. Thus, we may attribute the slight marginality of extractions like (21) to the residual effect of the *wh*-island constraint rather than to the absence of a complement clause to host the trace.[11]

The data in (22)–(24) are constructed in analogy to the data in (17)–(19), only the [Q] values of the complement clauses in the antecedent and the ellipsis site are reversed. In the (a) examples, the antecedent complement CP is declarative and the elided CP is interrogative, yet extraction is possible out of the latter (producing only mild deviance). The (b) examples serve to verify that the predicates whose complements are elided in the (a) examples do *not* select declarative complements. Thus, ellipsis in the (a) examples must have applied to a CP headed by $C_{[+Q]}$, *im* 'if', even though its antecedent CP is headed by $C_{[-Q]}$, which is null in infinitives.[12]

11 The possibility of Ā-movement out of a polar interrogative clause implies a split CP, with the interrogative complementizer and the Ā-trace occupying distinct projections; see Rizzi (2001) for one such proposal (out of many).

12 (22b) has an irrelevant *know-how* reading; however, the elliptical clause in (22a) has no such reading and must be interpreted as a *polar* question.

(22) a. (?) et mi ata naxuš le'hazmin la-mesiba
ACC who you determined.SG.M to.invite to.the-party
ve-et mi_i ata adayin lo yodea [**im** le'hazmin
and-ACC who you still not know.SG.M if to.invite
t_i la-mesiba]?
to.the-party
Lit. 'Who are you determined to invite to the party and who do you not yet know whether you will?'

b. * ata adayin lo yodea le'hazmin et Yosi la-mesiba.
you still not know.SG.M to.invite ACC Yosi to.the-party
('You don't know yet to invite Yosi to the party.')

(23) a. (?) et kartis ha-aliya la-matos, ani omer lexa **še**-carix
ACC ticket the-boarding to.the.airplane I tell.SG.M to.you that-required
le'havi. et te'udat ha-xisun, tevarer
to.bring ACC certificate.of the-vaccination figure.out.FUT.2.SG
levad [**im** carix le'havi t_i].
alone if required to.bring
Lit. 'The boarding pass, I tell you that you should bring. The certificate of vaccination, figure out by yourself whether you should.'

b. * tevarer levad (še-carix) le'havi et te'udat
figure.out.FUT.2.SG alone that-required to.bring ACC certificate.of
ha-xisun.
the-vaccination
('Figure out by yourself (that it's necessary) to bring the certificate of vaccination')

(24) a. (?) le-mavo le-phonologia, amru li le'herašem me-roš, aval
to-intro to-phonology said.3PL to.me to.register from-head but
le-mavo le-morphologia$_i$, hayiti carix liš'ol
to-intro to-morphology was.1SG must.SG.M to.inquire
[**im** le'herašem t_i me-roš].
if to.register from-head
Lit. 'To Intro to Phonology, they told me to pre-register, but to Intro to Morphlogy, I had to inquire whether to.'

b. * hayiti carix liš'ol le'herašem le-mavo le-morphologia$_i$
was.1SG must.SG.M to.inquire to.register to-intro to-morphology
me-roš.
from-head
('I had to inquire to pre-register to Intro to Morphology')

We can make sure that the slight, speaker-dependent deviance of the (a) examples reflects the general status of *wh*-island violations in Hebrew, rather than failure to extract out of a deep anaphor, by replacing the clausal gap with an overt clausal pro-form. In the examples below, even though the pronouns *ze*/*zot* 'it.M/F' and *kax* 'so' substitute for *declarative* complements, attempted extraction out of them is far worse than extraction out of the (elided) weak *wh*-islands in (22a)/(23a)/(24a), indicating that the latter are different in hosting a *surface* anaphor, eligible for subextraction.

(25) a. * et mi ata metaxnen le'hazmin la-mesiba
ACC who you plan.PRS.SG.M to.invite to.the-party
ve-et mi_i ata adayin lo yodea zot?
and-ACC who you still not know.SG.M it
('Who do you plan to invite to the party and who do you not yet know it?')

b. * et kartis ha-aliya la-matos, ani omer lexa še-carix le'havi. et te'udat ha-xisun, tevarer et ze levad.
ACC ticket the-boarding to.the.airplane I tell.SG.M to.you that-required to.bring ACC certificate.of the-vaccination figure.out.FUT.2.SG ACC it alone
Lit. 'The boarding pass, I tell you that you should bring. The certificate of vaccination, figure it out by yourself.'

c. * le-mavo le-phonologia, amru li le'herašem me-roš, aval le-mavo le-morphologia$_i$, lo amru li kax.
to-intro to-phonology said.3PL to.me to.register from-head but to-intro to-morphology not said.3PL to.me so
('To Intro to Phonology, they told me to pre-register, but to Intro to Morphlogy, they haven't told me so.')

These facts are consistent with the evidence presented in (16) that *null* deep anaphors cannot launch subextraction.[13]

In sum, AE of clausal complements in Hebrew tolerates a mismatch in force between antecedent and elided CPs, at least across the [–Q]–[+Q] divide. Moreover, abstracting away from the *wh*-island effect, the directionality of the mismatch does not matter for establishing parallelism. The question we now face is what sort of "parallelism" can do justice to these findings.

13 (25a–c) cannot be replicated with NCA, given the availability of a linguistic antecedent that licenses CP-ellipsis in the very same context.

4 Against TP deletion

The data under consideration can be schematically represented in two patterns, which I dub as *Analysis A*.

(26) Analysis A

Antecedent *Ellipsis*

a. [… V … [$_{CP}$ C$_{[+Q]}$ [$_{TP}$ …]]] ⟶ [… V … [$_{CP}$ C$_{[–Q]}$ [$_{TP}$ …]]]

Antecedent *Ellipsis*

b. [… V … [$_{CP}$ C$_{[–Q]}$ [$_{TP}$ …]]] ⟶ [… V … [$_{CP}$ C$_{[+Q]}$ [$_{TP}$ …]]]

The diagrams in (26) assume, as is standard in the literature on AE, that clauses go missing by CP deletion. After all, it is the CP that is the argument of the matrix verb. Insofar as AE in languages like Japanese, Korean, Hebrew, Portuguese, Persian, etc. affects DP and PP arguments, it is expected to affect CP arguments too. And indeed, the relevant ellipsis literature claims just that.

However, an alternative suggests itself, especially in view of cases where the content of C is not matched under ellipsis. Once might suppose that elided category is TP rather than CP, much as it is in sluicing or polarity ellipsis. Call this *Analysis B*.

(27) Analysis B

Antecedent *Ellipsis*

a. [… V … [$_{CP}$ C$_{[+Q]}$ [$_{TP}$ …]]] ⟶ [… V … [$_{CP}$ C$_{[–Q]}$ [$_{TP}$ …]]]

Antecedent *Ellipsis*

b. [… V … [$_{CP}$ C$_{[–Q]}$ [$_{TP}$ …]]] ⟶ [… V … [$_{CP}$ C$_{[+Q]}$ [$_{TP}$ …]]]

The immediate appeal of analysis B is that it turns the evidence for mismatch in force into an illusion. There is mismatch alright, but it is located *outside* the domain inspected for parallelism. Thus, the fact that the C heads of the complement CPs across the two sides of the arrows in (27) may be distinct is no more remarkable than the fact that the matrix verbs and subjects combining with these CPs are potentially distinct.

The analytic tradeoff here is between the size of ellipsis and how strict an identity relation it imposes. On the CP deletion approach, identity cannot be absolute, for it must tolerate a mismatch, visible both syntactically and semantically, between the C heads of the paired clauses, heads crucially included in the parallelism domain. On the TP deletion approach, identity can remain uncompromised, as the mismatch occurs outside the parallelism domain.

Nevertheless, I will argue against analysis B, drawing on several conceptual and empirical considerations.

Conceptually, the "simplicity" of identity under analysis B confers no advantage within a system of grammar that already recognizes principled deviations from strict identity under ellipsis, an insight going as far back as Chomsky (1965: 182). In particular, we have already reviewed in Section 1 the evidence for "functional mismatches" even under TP ellipsis; thus, sluicing need not copy aspect/tense information from the antecedent, nor modality or polarity. All of these are features active both in syntax and in semantics, just like force is, and in fact, it would be quite bizarre for force alone among the functional building blocks of the clause to obey strict identity under ellipsis.

Empirically, analysis B faces an immediate problem: Why is the C head stranded by TP ellipsis not pronounced? To illustrate, pronouncing the complementizers of the elided clauses in (17a) and (22a) is ungrammatical.

(28) a. ani lo zoxer **im** hem nas'u le-yavan,
I not remember.SG.M if they travelled.3PL to-Greece
aval le-italya$_i$, ani dey batuax **(*še)**.
but to-Italy I quite sure.SG.M that
'I don't remember if they travelled to Greece, but to Italy, I'm quite sure
they did.'

b. (?) et mi ata metaxnen le'hazmin la-mesiba
ACC who you plan.PRS.SG.M to.invite to.the-party
ve-et mi$_i$ ata adayin lo yodea **(*im)**?
and-ACC who you still not know.SG.M if
Lit. 'Who do you plan to invite to the party and who do you not yet know whether you will?'

This is not a quirk of the present Hebrew data set. There is no documented ellipsis process that removes the TP portion of regular declarative complements, stranding the complementizer alone. TP deletion is always contingent on some further activation of the C-domain: Either by a *wh*-movement (sluicing), focus movement (fragments and stripping) or polarity particles (polarity ellipsis).

To rescue analysis B, one might suggest that in the absence of a pronounced complement, complementizers must be "dropped" too, perhaps for prosodic reasons. Notice that this comes very close to saying that TP deletion is, *de facto*, C' or CP deletion. A suggestion in this spirit has recently been made by Stigliano (2022), who analyses parallel constructions in Rioplatense Spanish. Stigliano considers examples like (29), where an embedded polar question is entirely elided save for a remnant topic (a construction she terms polar *TREQ* – Topic Remnant Elided Questions).

(29) Sonia comió pizza pero Bruno$_i$ no sé [~~si t$_i$~~ ~~comió~~ ~~pizza~~].
Sonia ate pizza but Bruno not I.know whether he.ate pizza
'Sonia ate pizza, but Bruno, I don't know whether he ate pizza.'

Stigliano (2022: 233–4) is concerned that the elided interrogative complementizer *si* has no identical correlate in the antecedent, which is a declarative clause. Therefore, she maintains that despite appearances, the elided constituent in (29) is TP rather than CP (maintaining identity with the correlate TP). Strikingly, $C_{[+Q]}$ triggers ellipsis of its *complement* but is somehow affected by ellipsis too. What, then, accounts for the non-pronunciation of *si*? Stigliano invokes an extended version of Merchant's (2001) Sluicing-Comp generalization, renamed as *TP-ellipsis-COMP generalization*.

(30) *TP-ellipsis-COMP generalization* (Stigliano 2022: 235)
A C head with phonetic exponence cannot be followed by a prosodic constituent with no phonetic exponence.

Note that Stigliano does not provide an explicit bridge between (30) and the disappearance of *si* in (29). Presumably, some PF operation must remove the complementizer to comply with (30). But this seems to introduce ellipsis yet again through the back door. Thus, the silence of the polar question in (30) is derived by two steps of ellipsis: TP ellipsis and C-ellipsis. While the former respects identity, the latter does not. Avoiding the term ellipsis does not solve the problem. Even if *si* is deleted by some as-yet unknown PF-repair mechanism, it is legitimate to ask what other PF-repair mechanisms have the power to delete non-recoverable material.

Ultimately, polar TREQs teach us that clausal ellipsis does tolerate certain mismatches. In fact, this is a general feature they share with sluicing. In the next section I discuss the full range of functional mismatches attested in CP ellipsis, which go much beyond the [±Q] contrast. With this background in mind, nothing is gained by insisting on strict identity applying to the C position in ellipsis. Correspondingly, appeal to (30) to explain the silence of *si* in (30) is superfluous.

That clausal ellipsis cannot be reduced to the joint action of TP-ellipsis and (30) is further shown by ellipsis of *wh*-clauses.[14]

(31) ani yodea be-eyze aron lesader et ha-bgadim,
I know.SG.M in-which closet to.arrange ACC the-clothes
aval et ha-maca'im$_i$ ani lo yodea [~~be-eyze~~ ~~aron~~ ~~lesader t$_i$~~].
but ACC the-linen I not know.SG.M in-which closet to.arrange
Lit. 'I know in which closet to arrange the clothes but the linen I don't know.'

While complementizers may be removable in the context of TP-ellipsis, *wh*-words in [Spec,CP] may not. Deletion of *be-eyze aron* 'in which closet' in (31) thus falls outside the scope of both TP-ellipsis and (30). On the other hand, it is entirely expected on the CP-ellipsis analysis.

14 Extraction out of a nonfinite *wh*-complement in Hebrew is acceptable to many speakers; see the discussion of (21). I thank Klaus Abels for pointing out to me the relevance of such examples.

Finally, because analyses A and B assume different parallelism domains, they make different empirical predictions regarding the type of clauses that can enter elliptical relations. One such case involves potential ellipsis between *wh*-clauses and declarative clauses with indefinite DPs. I return to this case in Section 6.1, where theories of syntactic identity in ellipsis are discussed, and show how it furnishes one additional argument against analysis B.

5 Further functional mismatches

We have now established two main points: (i) Force mismatch in clausal AE is real, and (ii) it requires a notion of identity in ellipsis that tolerates mismatches, both in syntax and semantics, along the lines already documented for sluicing.

Up to this point, force mismatch was demonstrated between declarative and interrogative clauses related by ellipsis. A natural expectation is to find it with other force values. Indeed, such cases do occur in Hebrew. In (32), A's utterances, which serve as antecedents for ellipsis, are in the imperative mood (indicated by designated verbal morphology). The elided clause in B's reply in (32a) is declarative, and further involves a mismatch in finiteness. The one in (32b) is interrogative (a declarative parse for the sluice is infelicitous), also involving some other mismatch: If finiteness is mismatched (as depicted here) then a modal is optional, and if finiteness is matched, then the finite sluice must contain a necessity modal to deliver the intended reading (I return below to mismatches in finiteness and modality).

(32) a. A: ce me-ha-bayit miyad!
get.out.IMP.SG.M from-the-house at.once
'Get out of the house at once!'

B: me-hasalon$_i$, ani maskim [PRO lacet t$_i$].
from-the-living.room I agree.SG.M to.get.out
Lit. 'From the living room, I agree to.'

b. (Discussing what materials should be sent to a potential employer):

A: šlax la'hem korot xayim ve-et tik ha-avodot šelxa.
send.IMP.SG.M to.them history life and-ACC file the-works your
'Send them your CV and portfolio.'

B: et tik ha-avodot šeli, od lo berarti
ACC file the-works my still not figured.out.1SG
[im (carix) lišlo'ax la'hem t$_i$].
if (needed) to.send to.them
Lit. 'My portfolio, I haven't yet figured out whether I should.'

Force mismatches can potentially be checked with clauses expressing conditions, wishes, promises, requests, etc. However, it is important to keep in mind that many languages do not *grammatically* encode such force distinctions, e.g. in dedicated verbal morphology or specialized complementizers; consequently, mismatches in this domain often do not bear on the *syntactic* identity condition, which is our main concern.

At this point we may broaden the perspective and ask whether clausal AE in Hebrew tolerates other functional mismatches. Finding such mismatches will obviously bring AE and sluicing even closer insofar as both would display the same profile of match and mismatch for parallelism computations.[15]

Indeed, clausal AE tolerates mismatches in finiteness, tense, modality and polarity as well. These facts have not been reported before in the general literature on AE, so they are well worth documenting in Hebrew; hopefully, they will draw attention to, and prompt the study of, similar data in other languages.

Consider mismatch in finiteness. Example (32a) has already illustrated this possibility. In (33a) too, a finite CP serves as antecedent to an elided nonfinite CP. (33b) verifies that *he'ez* 'dare' cannot select a finite complement, hence ellipsis in (33a) tolerates a finiteness mismatch.

(33) *Finiteness mismatch*

a. al ma$_i$ ha-nasi medaber t$_i$ yoter miday,
about what the-president talks.SG.M too much
ve-al ma$_i$ hu lo me'ez [ledaber t$_i$]?
and-on what he not dares.SG.M to.talk
'What does the president talk about too much and what doesn't he dare to?'

b. * ha-nasi lo me'ez še-hu yedaber/medaber al
the-president not dares.SG.M that-he will.talk/talks.SG.M about
zxuyot adam.
rights human
('The president doesn't dare that he should/would talk about human rights.')

15 This is not to say that AE and sluicing syntactically licensed in a similar way. If Landau (2023) is correct, they are not, as AE involves neither a formal relation with a licensing head nor an operation of PF deletion.

Interestingly, the adverb *yoter miday* 'too much' in the antecedent CP need not be construed in the elided CP, a topic deserving its own investigation.[16]

Turning to mismatches in tense, such examples usually give rise to more variability. In (34a) the antecedent CP is in past tense and the elided CP is in future tense (both synthetic in Hebrew); notice that the mismatch is both morphological and semantic. 6 out of 10 speakers accepted this mismatch. (34b) verifies that a finite complement of *he'edif* 'prefer' cannot be inflected for past tense, hence ellipsis in (34a) tolerates a tense mismatch.[17]

(34) *Tense mismatch in clausal AE*

a. % le-eyze me'acev pnim ata micta'er še-ha-toxniyoyt
to-which designer interior you regret that-the-plans
nišlexu, ve-le-eyze$_i$ hayita
sent.PST.PASS.3PL and-to-which were.2SG.M preferred.PRT.SG.M
ma'adif [še-ha-toxniyoyt yišalxu t$_i$]?
that-the-plans sent.FUT.PASS.3PL
Lit. 'Which interior designer do you regret that the plans have been sent to and which would you have preferred them to?'

b. * hayiti ma'adif še-ha-toxniyoyt nišlexu
were.2SG.M preferred.PRT.SG.M that-the-plans sent.PST.PASS.3PL
le-me'acev ha-pnim šeli.
to-designer the-interior my
('I would prefer that the plans had been sent to my interior designer.')

The issue of temporal mismatch is contested in the sluicing literature. While considered impossible by Brucart (1987), Murguia (2004) and Saab (2008, 2016),

16 Anand et al. (2021: e71) mention (without illustration) that "an interestingly large range of adverbial expressions" can be present in a sluicing antecedent and absent from the sluice itself. A straightforward way of showing it is to use unembeddable speech act modifiers.

(i) A: Tom is, frankly, too secretive.
B: Do you have any idea why [Tom is (*frankly) too secretive]?

Even standard adverbs can go missing under sluicing, as Thoms (2013) observes.

(ii) Prime minister Tony Blair of Britain… announced that Britain would blindly follow America
into Afghanistan without questioning why [Britain would (# blindly) follow America into Afghanistan].

17 *he'edif* 'prefer' alternatively selects an infinitival complement, but this is not a viable parse for the clausal gap in (35a). The infinitival complement only affords an obligatory control interpretation (no lexical subject is allowed in it), which is not required at all in the interpretation of the clausal gap.

temporal mismatch is allowed by Rudin (2019) and Anand et al. (2021). Discussing these recent studies, Ranero (2021) points to methodological flaws in their examples, which either do not force such a mismatch, or only exhibit a mismatch between the presence and absence of tense. The pair in (35), illustrating temporal mismatch in sluicing and in contrastive polarity ellipsis, is immune to this critique; [past] and [future] are inconsistent values of T in Hebrew, and in fact, a temporal match would be plainly *ungrammatical* in these cases. (35a) was accepted by 8 out of 10 speakers and (35b) by 6 out of 10.

(35) a. *Tense mismatch in sluicing*
etmol Ana **yašna** ecel xaverim šela,
yesterday Ana slept.3SG.F at friends her
maxar ani lo yodea eifo$_i$ [Ana **tišan/*yašna** t$_i$].
tomorrow I not know.SG.M where Ana will.sleep.3SG.F/*slept.3SG.F
Lit. 'Yesterday Ana slept at her friends' place, tomorrow I don't know where she will.'

b. *Tense mismatch in polarity ellipsis*
% ba-šavua ha-ba, Ana **tagia** rak le-pgiša axat.
in.the-week the-next Ana will.arrive.3SG.F only to-meeting one
agav, ba-šavua še-avar gam
BTW in.the-week that-passed also
[Ana **higia/*tagia** rak le-pgiša axat].
Ana will.arrive.3SG.F/*arrived.3SG.F only to-meeting one
Lit. 'Next week, Ana will arrive to one meeting only. By the way, last week she did too.'

Examples (35a–b) are modelled on the examples in Spanish that Ranero (2021: 162–168) offers as genuine testing ground for tense mismatch: The remnant temporal modifier forces the tense of the elliptical clause to be different from that of the antecedent clause. Notice that both past-to-future and future-to-past shifts are licit for many speakers. Strikingly, Spanish does not allow these mismatches, according to the sources cited above.[18] However, (35a–b) are of a piece with (34a) in demonstrating the tolerance of elliptical constructions in Hebrew to temporal mismatch.

18 It is evident that even in Hebrew tense mismatch under ellipsis requires heavy accommodation. While tense mismatch is not syntactically excluded, I assume it is not the default choice comprehenders make when interpreting elided clauses. The clash between the default tense match and the remnant temporal adverb (requiring mismatch) triggers reanalysis. This process may not be equally easy for all speakers, explaining the variation in (34a) and (35b). I leave it to future research to sort out whether the contrast between Hebrew and Spanish is genuinely grammatical, or merely reflects individual

Turning to mismatches in modality, it is useful to keep in mind Ranero's (2021) commentary on the examples of modal mismatches documented in sluicing in Rudin (2019) and Anand et al. (2021). The sluice in these examples often involves a "nebulous modal" – either a modal whose existence is not fully established, or one whose specific flavor is not fully determined. While Ranero (2021: 183) states that "there is no structural diagnostic that *forces* a mismatch" in modality, I will show below that such a diagnostic can be constructed – and a mismatch is still tolerated.

To begin with, consider (36). The antecedent clause is A's utterance, which contains a modal of possibility (whose flavor is either dynamic or circumstantial modality). The elided clause in B's response, however, contains no modal at all. In fact, recovering the clause with the modal, as in (36C), yields a highly deviant interpretation.

(36) *Modality mismatch*

A: ani **yaxol** le'hakpic otxem le-taxanat ha-rakevet.
I can.SG.M to.give.lift you.PL to-station the-train
'I can give you all a lift to the train station.'

B: oti$_i$, eyn corex [še-takpic t$_i$ vle-taxanat ha-rakevet].
me.ACC no need that-will.give.lift.2SG.M to-station the-train
Lit. 'Me, there's no need for you to.'

C: # oti$_i$, eyn corex [še-tuxal le'hakpic t$_i$ le-taxanat ha-rakevet].
me.ACC no need that-can.FUT.2SG.M to.give.lift to-station the-train
'Me, there's no need for you to be able to.'

On a closer inspection, however, such pairs are less than compelling. Modal predicates in Hebrew take infinitival complements; thus (36A) and (36B) also differ in the finiteness of *hikpic* 'give lift'. Perhaps the antecedent clause consists solely of the infinitival phrase *le'hakpic otxem le-taxanat ha-rakevet* 'to give you a lift to the train station', excluding the modal. Then the mismatch would consist solely in finiteness (as in [33]), modality being expressed outside of the parallelism domain. Even if the modal is included in the parallelism domain, a theory based on featural non-distinctness, like Ranero (2021), can capture the mismatch between (36A) and (36B), since it involves the disappearance of modality, rather than a feature clash between two modals.

In order to demonstrate a mismatch in modality, then, we must guarantee that the modal-including parse of the ellipsis site is also the natural one for interpreters, while the modal-excluding parse is unnatural. Such is the case in the following

pragmatic differences in accommodative abilities (in which case we may expect acceptable instances of temporal mismatch to emerge even in Spanish, under some circumstances, for some speakers).

example. Clausal ellipsis occurs in A's second utterance; the three shaded clauses represent three options of resolving the ellipsis site: With a possibility modal, a necessity modal, or no modal (all modal flavors are deontic).

(37) Context: A and B discuss whether B should apply for an individual health insurance or one that covers her kids too. B's desire is to have a family insurance, but she is not familiar with the law.

A: ha-xok me'od barur. Eyn bituax kolektivi.
the-law very clear no insurance collective
'The law is very clear. There's no collective insurance.'

B: ma zot omeret? ani **xayevet** lecaref et ha-yeladim
what it says I must.SG.F to.join ACC the-kids
šeli la-bakaša.
my to.the-application
'What do you mean? I *have* to add my kids to the application.'

A: et ha-yeladim šelak$_i$, lefaxot al pi ha-xok, eyn sikuy
ACC the-kids your at.least according the-law no chance
[še-at **yexola** lecaref t_i la-bakaša].
that-you.F can.SG.F to.join to.the-application
?? [še-at **xayevet** lecaref t_i la-bakaša].
that-you.F must.SG.F to.join to.the-application
[še-tecarfi/lecaref t_i la-bakaša].
that-join.FUT.2SG.F/to.join to.the-application
Lit. 'Your kids, at least according to the law, there's no chance you can/
?? must / # will.'

The introductory phrase *according to the law* creates a normative context, such that the following proposition must contain some (possibly implicit) deontic modal. Notice that the most natural interpretation of the elided clause in A's second utterance includes the modal *yaxol* 'can', which is crucially mismatched with the modal *xayav* 'must' in the antecedent clause in B's utterance. A matching 'must' yields a pragmatically odd construal, weaker than A's first utterance, hence not a natural discourse move. If no modal is present in the elided clause (whether that clause is finite or nonfinite), the resulting reading is extremely bizarre, implying that the law is somehow in the business of *predicting* (rather than regulating) A's future behavior.

Finally, let us turn to polarity mismatches. In (38), negation is present in the antecedent CP but absent from the elided CP on its most natural interpretation.[19]

19 The adverb *kvar* 'already' in the antecedent CP also need not be construed in the elided CP. See fn. 17.

(38) *Polarity mismatch*

ani ma'arix še-Gil kvar lo yaxzir et ha-xov
I estimate.M.SG that-Gil already not will.return.3SG.M ACC the-debt
le-axoto, aval et ha-xov la-bank$_i$, ani adayin mekave
to-sister.his But ACC the-debt to.the-bank I still hope.M.SG
[še-Gil (#lo) yaxzir t_i].
that-Gil (#not) will.return.3SG.M

Lit. 'I estimate that Gil will not return his debt to his sister anymore, but his debt to the bank I hope that he will.'

I have not been able to construct an acceptable opposite mismatch, with negation appearing in the elided clause without a correlate negation in the antecedent. This, however, may only be a matter of difficulty, not impossibility; indeed, Kroll (2019) and Anand et al. (2021) note that "appearing negation" is much rarer than "disappearing negation" under sluicing, but is still attested. Whether such cases are attested in CP ellipsis remains to be determined.

6 Theoretical implications for theories of mismatch

The main empirical contribution of this study has been to show that mismatch in force is possible under clausal (CP) ellipsis, an instance of the general process of AE. Mismatches are observed between declarative, interrogative and imperative clauses. We have focused on the first two types and seen mismatches occurring in both directions, as schematized below.

(39) *Attested force mismatch in CP ellipsis*

a. … [$_{CP}$ $C_{[+Q]}$ [$_{TP}$ …]] ⟶ … [$_{CP}$ $C_{[-Q]}$ [$_{TP}$ …]]

b. … [$_{CP}$ $C_{[-Q]}$ [$_{TP}$ …]] ⟶ … [$_{CP}$ $C_{[+Q]}$ [$_{TP}$ …]]

In this section I discuss what this finding implies for current approaches to the general issue of mismatches under ellipsis. In general, all theories of ellipsis posit some parallelism between the antecedent and the elided constituent. The condition of parallelism may be purely syntactic, purely semantic, or some combination thereof.[20] As noted at the outset, these approaches are continually being developed and evaluated against novel data, so the ultimate choice among them is very much an

20 For recent surveys on the topic of identity in ellipsis, see Lipták (2015), Lasnik and Funakoshi (2018), Vicente (2018) and Merchant (2019).

open matter. The evidence from force mismatch joins in the greater pool of data that bears on this broader endeavor. I begin by considering syntactic theories of mismatch (Section 6.1) and then proceed to semantic theories (Section 6.2).

6.1 Handling force mismatch within syntactic parallelism

In this subsection I consider three types of theories of syntactic parallelism: (i) Identity is restricted to some subclausal domain; (ii) The features of the ellipsis target must be a proper subset of those in the antecedent; (iii) The features of the ellipsis target must be nondistinct from those in the antecedent.

Consider option (i). On theories that restrict identity to some subclausal constituent, the possibility of force mismatch is entirely expected. Thus, both Rudin's (2019) "eventive core" (vP) and Anand et al.'s (2022) "argument domain" (PredP) do not include the CP layer; hence, any information encoded in C is not subject to syntactic identity for these theories. As usual, the ultimate felicity of such functional mismatches is calculated in the pragmatic component. Nothing more needs to be said in this regard (although the full details of the pragmatic theory of licensing mismatches are yet to be filled in).

Things are more challenging to subset theories (cases [ii] above), like Murphy (2016). On this theory, the morphosyntactic features of the target of ellipsis must be a proper subset of the features of the antecedent. The mismatch in (39a) may be allowed if [Q] is a privative feature, thus absent from the C head of an elided declarative clause. Yet (39b) remains a problem: [+Q] can appear on an elided C head even when the antecedent lacks that feature – a *superset* relation, contrary to expectation. In general, the subset theory is ill-equipped to deal with mismatches that may go in both directions, as one of these directions is bound to violate the subset condition.

Consider next case (iii), where the fundamental notion for licensing mismatches is *featural nondistinctness*, as in Ranero (2021). Representing the declarative-interrogative distinction as a bi-valued feature, as done in (39), is not consistent with this theory; [+Q] and [–Q] are distinct and induce a clash. However, if [Q] is a privative feature, a mismatch between no [Q] and [Q] would fall under tolerable nondistinctness. The fate of that theory, then, depends on the plausibility of taking [Q] to be a privative feature of complementizers.

One challenge to this approach is posed by complement selection. On traditional assumptions, verbs like *insist* and *prove* select [–Q] complements, while verbs like *wonder* and *inquire* select [+Q] ones. Suppose we eliminate [–Q] from the system; how are the selectional facts to be captured? Specifically, what would block **insist whether*… and **wonder that*…? One might suggest that [+Q], being marked,

must be selected. This would take care of one half of the problem, still offering no answer to why **wonder that…* is disallowed. The deeper problem is untouched: Why do [Q] and no [Q] count as nondistinct for ellipsis but still distinct for selection?

Note that it will not do to push complement selection to postsyntactic semantics, thereby setting it apart from the syntactic identity condition on ellipsis. Complement selection surely affects semantic interpretation, but cannot be registered *only* at that level, as it feeds morphological realization; $C_{[+Q]}$ and $C_{[-Q]}$ receive different spellouts. Thus, the *syntax* must be able to treat them as distinct for one process and as nondistinct for another one – clearly an unwelcome result.[21]

Let us now take a closer look at some further predictions of theory (i). Identity is restricted to the argument domain (vP or small clause), and only applies to elements properly contained in the elided category, as Chung (2006), Rudin (2019) and especially Ranero (2021) stress. This implies that in sluicing, the trace of the *wh*-remnant is exempt from identity, because the head of that chain is outside the elided category (TP), allowing, for example, lexical mismatches between the remnant and its correlate, or even antecedentless remnants ("sprouting"). The following condition is adapted with slight changes from Rudin (2019: 269–270).

(40) *Syntactic condition on ellipsis*
Given a prospective ellipsis site **E** and its antecedent **A**, nonpronunciation of the phonological content associated with any head *h* properly contained in **E** is licit if at least one of the following conditions holds:[22]
a. *h* did not originate within **E**'s argument domain.
b. *h* has a structure-matching correlate *i* in **A**.

The fact that *wh*-phrases occupy a position outside TP but inside CP directly bears on the "proper containment" prerequisite on identity. While *wh*-remnants outside elided TPs are exempt from identity, *wh*-phrases inside elided CPs should respect it. This constraint places an upper bound on possible mismatches in force under clausal

21 To the extent that modality, polarity and tense display selectional dependencies (e.g., certain complementizers selecting specific tenses), analogous tensions would arise between the need to keep different choices within these categories distinct for selection but nondistinct for ellipsis.

22 *Structure matching* (Rudin 2019: 258)

A node *n* in domain *d structure-matches* a node *n'* in domain *d'* iff *n* and *n'* are dominated by an identical sequence of immediately dominating nodes within *d* and *d'*.
Correlate (Rudin 2019: 264)
A node *n* can be a correlate for a head *h* iff at least one of the following conditions holds:
a. *n* is a head and *n* and *h* are tokens of the same lexical item.
b. *n* is coindexed with *h*.

ellipsis: In particular, declarative and *wh*-clauses may not be paired in a manner similar to declarative and polar clauses.

The Hebrew data confirm this expectation. Although an indefinite DP (*mašehu* 'something', *mišehu* 'someone') can be the correlate of a *wh*-word (*ma* 'what', *mi* 'who') in sluicing (42c–d), neither can be the correlate of the other in CP-ellipsis. Specifically, (41a,b) show that a *wh*-clause cannot antecede ellipsis of a [–Q] clause, and (42a,b) show that a [–Q] clause cannot antecede ellipsis of a *wh*-clause.

(41) a. **[+wh]→[–Q] ellipsis*
ani lo zoxer ma$_i$ Yosi bikeš le'havi t$_i$ la-mifgaš,
I not remember.SG.M what Yosi asked.3SG.M to.bring to.the-meeting
aval ani batuax *(še-Yosi bikeš le'havi mašehu la-mifgaš).
but I sure.SG.M that-Yosi asked.3SG.M to.bring something to.the-meeting
('I don't remember what Yosi asked us to bring to the meeting, but I'm sure that he asked us to bring something to the meeting.')

b. **[+wh]→[–Q] ellipsis*
hi ša'ala mi yitnadev le'hišaer axarey ha-avoda,
she asked.3SG.F who volunteer.FUT.3SG.M to.stay after the-work
ve-kulanu be'emet kivinu *(še-mišehu yitnadev
and-all.1PL really hoped.1PL that-someone volunteer.FUT.3SG.M
le'hišaer axarey ha-avoda).
to.stay after the-work
('She asked who would volunteer to stay after work, and we all really hoped that somebody would.')

(42) a. **[–Q]→[+wh] ellipsis*
ani batuax še-Yosi bikeš le'havi mašehu la-mifgaš,
I sure.SG.M that-Yosi asked.3SG.M to.bring something to.the-meeting
aval ani lo zoxer *(ma$_i$ Yosi bikeš le'havi t$_i$ la-mifgaš).
but I not remember.SG.M what Yosi asked.3SG.M to.bring to.the-meeting
('I'm sure that Yosi asked us to bring something to the meeting, but I don't remember what he asked us to bring to the meeting.')

b. **[–Q]→[+wh] ellipsis*
kulanu kivinu še-mišehu yitnadev le'hišaer axarey ha-avoda,
all.1PL hoped.1PL that-someone volunteer.FUT.3SG.M after the-work
az hi ša'ala *(mi yitnadev le'hišaer axarey ha-avoda).
so she asked.3.SG.F who volunteer.FUT.3SG.M to.stay after the-work
('We all hoped that somebody would volunteer to stay after work, so she asked who would volunteer to stay after work.')

c. ✓*Sluicing*
ani batuax še-Yosi bikeš le'havi mašehu la-mifgaš,
I sure.SG.M that-Yosi asked.3SG.M to.bring something to.the-meeting
aval ani lo zoxer ma$_i$ (Yosi bikeš le'havi t$_i$
but I not remember.SG.M what Yosi asked.3SG.M to.bring
la-mifgaš).
to.the-meeting
'Yosi asked us to bring something to the meeting, but I don't remember what.'

d. ✓*Sluicing*
kulanu kivinu še-mišehu yitnadev le'hišaer axarey ha-avoda,
all.1PL hoped.1PL that-someone volunteer.FUT.3SG.M after the-work
az hi ša'ala mi (yitnadev le'hišaer axarey ha-avoda).
so she asked.3.SG.F who volunteers.FUT.3SG.M to.stay after the-work
'We all hoped that somebody would volunteer to stay after work, so she asked who.'

Condition (40) successfully accounts for this array of data (as well as for the core force mismatch data in Sections 3 and 5). The crucial point is that the evaluation procedure operates in two steps. First, the domain of ellipsis is identified. Any element properly contained in this domain is visible to identity calculation, and any element not properly contained in it is not. Second, of all the elements visible to identity calculation, only those within the argument domain are *actually* evaluated for identity with a structure-matching correlate.

In (41a,b), the indefinite DPs in the elided declarative clauses (object in [41a], subject in [41b]) are both visible to identity calculation and actually evaluated, being part of the argument domain. Note that the although the elided subject in (41b) occupies [Spec,TP], its base copy (in [Spec,vP]) is in the argument domain, hence it is evaluated for identity with a correlate, just as it is in sluicing; "proper containment" is a condition on visibility, not on evaluation, and because the entire chain of the subject is properly contained in the elided CP, it is visible, i.e., each of its copies is visible to identity calculation. The structure-matching elements in the antecedent *wh*-clauses of (41a,b) are *wh*-words (more precisely, their base copies), which are neither lexically identical nor coreferential with the elided indefinite DPs, hence do not qualify as correlates (see fn. 22). Thus, these sentences violate syntactic identity.

It is worth spending a moment on the claimed distinctness of *wh*-words and indefinite DPs. Chung et al. (1995) famously highlighted the strong affinity between

indefinite DPs and *wh*-words and utilized it to explain why the former can naturally serve as correlates of the latter in sluicing.[23] Merchant (2001) similarly treated *wh*-traces and indefinite DPs as semantically equivalent for the purposes of parallelism in ellipsis.

(43) Mary found something. Guess what [Mary found ~~what~~]!

However, none of these studies explicitly maintained that indefinite DPs and *wh*-words are *lexically* nondistinct. Instead, the equivalence was established at an abstract semantic level, where both types of elements were taken to introduce variables; existential binding of the variables, whether built into the semantics of the element or factored out to some operator, guaranteed their parallel contribution at the propositional level.

Now, because the present theory of identity is syntactic and not semantic, we can happily skirt the question of whether and to what extent indefinite DPs and *wh*-words are semantically equivalent; indeed, crosslinguistic research suggests that in many languages these are closely related items (Yun 2013). A better way to address the issue of lexical identity (relevant to [40]) is to steer clear of sluicing and look at other elliptical contexts. In fact, both VP ellipsis and pseudogapping reveal that indefinite DPs are not parallel to *wh*-traces in the sense relevant to ellipsis (I thank an anonymous reviewer for pointing out example [44a]).

(44) a. * Mary knows what John stole, and she knows that only HE did [steal something].

b. Mary knows what John stole and she knows what BILL will [steal ~~what~~].

c. Mary knows that John stole something, and she knows that Bill did [steal something] too.

(45) a. * Who did Bill kill for money after JOHN had [killed someone] for fun?

b. I wonder who Bill killed for money and who JOHN had [killed ~~who~~] for fun.

c. Bill killed someone for money after JOHN had [killed ~~someone~~] for fun.

These data indicate that indefinite DPs and *wh*-words are strictly speaking *not* legitimate correlates under ellipsis. What gives this illusion in sluicing (43) is the fact

23 Although corpus data reveal that a correlate is present in only 34.5 % of sluicing examples (Anand et al. 2021), and sprouting is much more common.

that the *wh*-copy inside the ellipsis site is invisible to the lexical identity requirement, being part of a chain that is not properly contained in the ellipsis site.[24]

Thus, the highly restricted syntactic identity condition in (40) covers an impressive ground in the domain of CP ellipsis. It correctly bans lexical mismatches in the argument domain (see [8]) while allowing functional mismatches above it (in finiteness, tense, modality, polarity and crucially force). Furthermore, it correctly distinguishes *wh*-chains in sluicing, which are exempt from identity, from *wh*-chains in CP ellipsis, which are not.

A further prediction we make is that *wh*-clauses and polar clauses will pass the parallelism criterion insofar as they both contain structure-matching *wh*-copies. This is indeed the case (I thank Richard Stockwell directing my attention to this datum).

(46) et mi hizmant la-mesiba ve-et mi_i at adayin mitlabetet
ACC who invited.2SG.F to.the-party and-ACC who you still unsure.SG.F
[im le'hazmin ~~et~~ ~~mi_i~~ la-mesiba]?
if to.invite ACC who to.the-party
Lit. 'Who did you invite to the party and who are you still unsure whether to?'

While such examples pose no problem for condition (40), and in fact involve force matching, they do pose a challenge to semantic identity (see below).

In closing this section, let me point out one analytic conclusion that emerges from the comparison between sluicing and CP ellipsis. Recall that the crucial empirical difference between the two constructions – the possibility of pairing an indefinite DP with a *wh*-copy – hinges on the difference in visibility of the *wh*-chain to the identity calculation; that difference, in turn, stems from the fact that the ellipsis domain is TP in sluicing but CP in clausal ellipsis.

In this light, let us revisit the alternative proposal in (27), analysis B, according to which it is only TP that undergoes ellipsis in clausal AE (with C somehow being independently removed).

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24 The invisibility of *wh*-traces is not restricted to sluicing and shows up in VP ellipsis too; an indefinite DP can be the structure-matching correlate to a *wh*-trace whose chain is not properly contained in the elided VP (i).

(i) Mary knows that John visited some towns, but she doesn't know which towns he DIDN'T [visit ~~which towns~~].

On the other hand, *wh*-copies *can* be legitimate correlates of E-type pronouns under the coindexation option of fn. 22; note that indefinite DPs cannot be coindexed with an antecedent due to their novelty requirement.

(ii) I wonder $what_i$ Mary hid from us and why [Mary hid it_i from us ~~why~~].

(47) Analysis B

Antecedent *Ellipsis*

a. [… V … [$_{CP}$ C$_{[+Q]}$ [$_{TP}$ …]]] ⟶ [… V … [$_{CP}$ C$_{[-Q]}$ [$_{TP}$ …]]]

Antecedent *Ellipsis*

b. [… V … [$_{CP}$ C$_{[-Q]}$ [$_{TP}$ …]]] ⟶ [… V … [$_{CP}$ C$_{[+Q]}$ [$_{TP}$ …]]]

In addition to the conceptual objections already raised against this analysis in Section 4, now we can adduce an empirical argument. If the actual ellipsis domain in clausal AE were TP rather than CP, then it should pattern with sluicing in regard to *wh*-chains. In particular, the *wh*-copy in the elided clauses of (42a,b) should be invisible to identity calculation, being of part of a chain not properly contained in the ellipsis site (TP, by assumption). This should lead to ellipsis being licensed, as it is in sluicing (43) – the mismatch between *something* and *what* is not registered. However, this prediction is disconfirmed. The very fact that (42a,b) can only be rendered grammatical by sparing the *wh*-remnant from ellipsis strongly suggests that the ellipsis domain is not kept constant, and does extend to CP when the *wh*-word is elided.

6.2 Handling force mismatch within semantic parallelism

In order to evaluate theories of semantic parallelism against the data from force mismatch, we first need to be explicit about the semantic denotations of the antecedent and the elided clauses. As it turns out, there is a mutual interdependence between what we take these denotations to be and what theory of semantic parallelism is favored by the evidence.

A declarative clause denotes a proposition, or, when occurring as a selected complement, the singleton set comprising of a proposition. This much seems uncontroversial. The semantic type of polar questions, however, is more contestable. On the classical view (see, among others, Hamblin 1973; Karttunen 1977; Higginbotham 1993), a polar question denotes the *two-membered set* consisting of its possible answers – namely, the positive and negative assertions corresponding to the propositional content of the question. A more recent alternative, in contrast, takes polar questions to denote *singleton* sets, just like declarative clauses (Bhatt and Dayal 2020; Biezma 2009; Biezma and Rawlins 2012; Roelofsen and Farkas 2015; van Rooij and Šafářová 2003). On this view, the difference between declarative and polar question complementizers is located not in the denotation of their complements but in their presuppositional import or pragmatic implications. Let us call these the *two-membered set* and *the singleton set* analyses, respectively.

The motivations behind the singleton set analysis go beyond the scope of the present study, so I will just mention some very briefly. Since Bolinger (1978) it is

known that polar questions, in contradistinction to *alternative* questions, are not neutral, and privilege the polar value of their nucleus proposition.[25] Declarative and polar complements can even form a natural class to the exclusion of *wh*-complements (which do denote multi-membered sets), for selectional purposes; dubitative predicates only select the former two, not the latter (e.g., *I doubt that/whether/*what Mary ate*). Finally, certain restrictions on the distribution of polar question particles naturally follow from the singleton set analysis (Bhatt and Dayal 2020).

With this minimal background, let us turn to theories of semantic parallelism in ellipsis. I will consider two such theories: (i) e-GIVENNESS (Merchant 2001) and (ii) Local Givenness (Kroll 2019). The question of interest is what predictions these theories make with respect to the possibility of force mismatch under either one of the semantic analyses of polar questions.[26]

(48) *e-GIVENNESS* (Merchant 2001: 26, 31)
An expression E counts as e-GIVEN iff E has a salient antecedent A, and modulo E-type shifting:
a. A entails F-clo(E), and
b. E entails F-clo(A)
Focus condition on ellipsis: A VP/TP α can be deleted only if α is e-GIVEN.
Local Givenness (Kroll 2019: 31)
A TP α can be deleted iff *ExClo*($[\![\alpha]\!]^g$) expresses a proposition p, such that $c_L \subseteq p$ and p is maximally salient.

The empirical pattern in (39), repeated below, is to be captured

(49) *Attested force mismatch in CP ellipsis*
a. … $[_{CP}\ C_{[+Q]}\ [_{TP}\ \ldots]]$ ⟶ … $[_{CP}\ C_{[-Q]}\ [_{TP}\ \ldots]]$
b. … $[_{CP}\ C_{[-Q]}\ [_{TP}\ \ldots]]$ ⟶ … $[_{CP}\ C_{[+Q]}\ [_{TP}\ \ldots]]$

Starting with the classical, two-membered set analysis of polar questions, semantic parallelism is failed under e-GIVENNESS. While {p} ⊆ {p,¬p} and so the ellipsis clause (E) entails the antecedent clause (A) in (49a), and vice versa for (49b), the entailments only go one way. Because e-GIVENNESS is based on *bidirectional* entailment between A and E, semantic parallelism is not satisfied. Turning to Local Givenness, here the requirement is for the local context (c_L) to entail E, modulo existential closure. This

25 "A polar question involves presenting a single alternative when the public context does not decide between that alternative and some unstated other possibilities, but the addressee is in a position to decide for or against this alternative" (Biezma and Rawlins 2012: 394).

26 *F-clo(α)* replaces all Focus-marked elements in α with variables and applies existential closure to the result. Simple *ExClo(α)* existentially binds unfilled argument positions. Both Merchant and Kroll assume that traces of constituents moved outside of the ellipsis domain are also existentially bound.

requirement obtains in (49b) with no further ado. As to (49a), the question is whether the local context of an elided declarative clause can be suitably narrowed to exclude the polar alternative introduced by the antecedent which is *not* realized in the ellipsis site.

To illustrate this point, consider again example (17a).

(50) a. ani lo zoxer **im** hem nas'u le-yavan,
I not remember.SG.M if they travelled.3PL to-Greece
aval le-italya$_i$, ani dey batuax [**še**-hem nas'u t$_i$].
but to-Italy I quite sure.SG.M that-they travelled.3PL
'I don't remember if they travelled to Greece, but to Italy, I'm quite sure they did.'

b. $c_L = c_G \cap \{\exists x.$*they travelled to x,* $\neg\exists x.$*they travelled to x*$\} \cap c_D$

c. F-clos(E) = $\{\exists x.$*they travelled to x*$\}$

The local context (c_L) of the elided declarative clause consists of the intersection of the global context of the entire conjunction (c_G), the two-membered-set denotation of the polar question, and the immediate contribution of the material introducing the elided declarative ("but I'm quite sure ...."), notated in (50b) as c_D. Hence, under the two-membered set analysis of polar questions, the task for the Local Givenness theory is to make sure that c_D *excludes* the polar alternative of F-clos(E), namely, excludes $\{\neg\exists x.$*they didn't travel to x*$\}$. I will not try to investigate whether this is feasible and if so, how. Rather, my present goal is simply to spell out, as explicitly as possible, the implications of the force mismatch data for theories of semantic parallelism.

Consider next the implications of adopting the singleton set analysis of polar questions. Under this analysis, *that p* and *whether p* are denotationally equivalent (though distinct in presuppositional import). Bidirectional entailment obtains, hence both e-GIVENNESS and Local Givenness are satisfied with no further ado. This seems to lend support to the singleton set analysis over the classical analysis. More precisely, *if* semantic parallelism is needed in ellipsis, over and above syntactic parallelism, then the singleton set analysis provides an immediate, and possibly the simplest account of why a [–Q]-clause and a [+Q]-clause can figure in elliptical relations with one another in both directions. This potentially constitutes a novel argument in favor of the singleton set analysis, coming from an unexpected source.

Let me end with this question: *Does* ellipsis require semantic parallelism over and above syntactic parallelism? There are well-known arguments in favor of that position, drawing on several key phenomena (e.g., vehicle change); see the references in fn. 20. In truth, much of the data considered above does not decide the issue. As discussed in the previous subsection, theories of syntactic identity are flexible

enough to handle the declarative-polar mismatches. What about the [+wh]→[−Q] and [−Q]→[+wh] mismatches in (41a,b) and (42a,b)? Can semantic parallelism correctly rule them out?

In (41a), repeated below, the antecedent domain is an interrogative CP, whose denotation is a multi-membered set of propositions (namely, all the propositions expressing a true answer to the question). The ellipsis domain denotes a singleton set (for [41a], the set consisting of the proposition that there exists an entity which Yosi asked us to bring to the meeting).

(51) a. ani lo zoxer ma$_i$ Yosi bikeš le'havi t$_i$ la-mifgaš,
I not remember.SG.M what Yosi asked.3SG.M to.bring to.the-meeting
aval ani batuax *(še-Yosi bikeš le'havi mašehu
but I sure.SG.M that-Yosi asked asked.3SG.M to.bring something
la-mifgaš).
to.the-meeting
('I don't remember what Yosi asked us to bring to the meeting, but I'm sure he asked us to bring something to the meeting.')

b. **Antecedent domain:** [$_{CP}$ what$_i$ [$_{TP}$ Yosi asked to bring t$_i$ to the meeting]]
4 {*Yosi asked us to bring drinks to the meeting, Yosi asked us to bring snacks to the meeting, Yosi asked us to bring the files to the meeting*… }
Ellipsis domain: [$_{CP}$ that [$_{TP}$ Yosi asked to bring something to the meeting]]
4 {∃*x[Yosi asked to bring x to the meeting]*}

On the e-GIVENNESS account, this lack of parallelism is enough to rule out ellipsis: E does not entail A. Likewise, in the opposite case of [−Q]→[+wh] ellipsis (42a,b), A does not entail E, and ellipsis is again correctly excluded.

Turning to Local Givenness, we need to address presuppositions. Constituent questions contribute existence presuppositions, so *What did Yosi ask us to bring to the meeting?* presupposes, hence entails, *Yosi asked us to bring something to the meeting*. This is *not* what we want. To deal with analogous cases, where entailment obtains but sluicing nonetheless fails, Kroll (2019: 31) adds the condition that E must be *maximally salient*. Plausibly, presupposed material, being backgrounded, is not salient enough, so the declarative complement in (51a), presupposed by the interrogative antecedent, cannot be elided. For the opposite case of "[−Q]→[+wh] ellipsis", Local Givenness correctly predicts lack of entailment (A does not entail E in [42a,b]).

Overall, then, theories of semantic parallelism can handle the force mismatch data quite well, perhaps when aided by a few minor assumptions. Should we then leave the choice between syntactic and semantic identity undecided? I believe not. First, the *wh*-polar pairing in (46) is not amenable to the e-GIVENNESS account;

whichever semantics we choose for the polar interrogative clause, it will not end up equivalent to a *wh*-clause, so mutual entailment will not obtain. It is also doubtful that Local Giveness can derive the possibility of ellipsis in that case, at least on the singleton semantics of polar questions; the desired entailment was shown not to hold in the analogous case of (51).

Furthermore, the "subclausal syntactic identity" theory seems to have an edge over semantic parallelism in explaining the entire range of functional mismatches (tense, modality and polarity) discussed in Section 5. Currently, only the polarity mismatch (in sluicing) has been addressed by the Local Givenness theory (Kroll 2019), and it is not clear how mismatches in modality and tense are to be accommodated and at what theoretical cost. In contrast, what is particularly appealing about the syntactic condition in (40) is its parsimony: Faced with *any* functional mismatch, it need not invoke *any* new machinery, simply because all functional mismatches (above the vP level) are disregarded. That said, theories of syntactic identity must be supplemented by richer pragmatic theories that reliably predict which, among all possible mismatches in elliptical relations, are actually supported in attested discourse.

7 Conclusions

Clausal ellipsis is still an understudied topic, partly because it is not available in many of the better studied languages. While TP ellipsis – in sluicing, stripping or polarity ellipsis – is fairly widely known, full CP ellipsis has been mainly confined to the East Asian languages. Yet the evidence for *ellipsis* emerging from studies of these languages has been rather indirect. The general consensus, from Saito (2007) up until Sakamoto (2020), has been that no overt material can be extracted from elided CPs (but see Takahashi 2020 and Fujiwara 2022 for a dissenting view). Thus, the argument from extraction to silent structure – the strongest argument for such a structure – could only have been made obliquely, using various *covert* extractions (Sakamoto 2020). Other than that, evidence for overt extraction from elided CPs has been rather sparse (see the few Portuguese examples in Cyrino and Matos 2006 and Hebrew examples in Landau 2023). In practice, Depiante's (2001) claim that complement CPs can only go missing by NCA has largely gone unchallenged.

The most immediate empirical objective of the present study has been to provide a solid, diverse body of evidence that standard ellipsis *can* target complement clauses and *can* be diagnosed by the same rigorous method used to argue for ellipsis in sluicing and stripping: Extraction out of the ellipsis site that exhibits morpho-syntactic connectivity with the elided base position.

The main interest in CP ellipsis in Hebrew is its tolerance to mismatches in force. In particular, declarative, imperative and polar interrogative clauses can each license ellipsis of the other types. This finding joins in the larger pool of studies on sluicing where functional mismatches of various sorts have been documented between antecedent and elliptical clauses. Yet the possibility of mismatch in *force* has so far not been clearly discernible as it requires full CP ellipsis to be expressed.

Force mismatch presents an interesting testing ground for current theories of mismatch (or "partial identity") in ellipsis, whether syntactic or semantic in nature. It bears on the choice between "subclausal syntactic identity" or "nondistinctness" as the decisive criterion. It bears on whether [Q] is taken to be a binary or privative feature on complementizers. Finally, it bears on the proper semantic analysis of polar questions insofar as semantic parallelism is still required in ellipsis. Nonetheless, taken together, the evidence leans in favor of the "subclausal syntactic identity" theory and against semantic theories of identity. This theory offers the most parsimonious explanation for why mismatches in tense, modality and polarity are allowed in CP ellipsis; why force mismatch between declarative and polar interrogative clauses is also allowed; and at the same time, why mismatch between declarative and *wh*-interrogative clauses is *disallowed*. Nonetheless, this syntactic explanation must be supplemented by a sufficiently restrictive pragmatic account. Undoubtedly, clausal ellipsis and argument ellipsis at large provide ample (and still underused) opportunities for pushing further and refining our theories of identity in ellipsis.

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