It is well known that in sluicing constructions \textit{wh}-dependencies can cross certain projections that are otherwise barriers to movement (Ross 1969, Chomsky 1972). This fact would follow under the assumption that the relevant barriers are somehow deactivated when phonologically deleted (‘island repair’). The problem, however, is that another form of phonological deletion (VP-ellipsis; VPE) seems to be impossible in certain contexts where sluicing allows for island repair (Chung, Ladusaw, and McCloskey 1995, Merchant 2001).

Nevertheless, we argue against the conclusion that island repair is a special property of sluicing. The argument is based on two observations. First, the difference between sluicing and VPE seems too broad to warrant the conclusion that island repair is the distinguishing factor (Lasnik 2001). Second, the conclusion is directly refuted by other VPE environments where island repair is possible (Kennedy and Merchant 2000; Fox, in preparation). The argument leaves us with a puzzle that we attempt to resolve while still maintaining the null hypothesis that VPE and sluicing involve the same operation of deletion, differing only in the size of the deleted constituent. Our proposed resolution capitalizes on a special property of the relevant sluicing contexts—namely, the presence of an indefinite NP in the antecedent clause in a position parallel to that of a trace in the elided clause. We argue that given the parallelism conditions on ellipsis, this fact prevents the \textit{wh}-phrase in the elided clause from undergoing successive-cyclic movement. The remaining option (one-fell-swoop movement) requires the deletion of all barriers, including those that would otherwise be circumvented via an intermediate landing site. Such deletion occurs in sluicing but not in VPE, which targets a smaller constituent.

1 An Apparent Repair Paradox

To the best of our knowledge, Ross (1969) was the first to observe island repair under sluicing. Ross gives the following examples (mark-
ing the sluicing versions with ??, though many speakers find them perfect or virtually so):

1. I believe the claim that he bit someone, but they don’t know who (*I believe the claim that he bit).  
   (Complex NP Constraint, noun complement)

2. Irv and someone were dancing together, but I don’t know who (*Irv and were dancing together).  
   (Coordinate Structure Constraint)

3. She kissed a man who bit one of my friends, but Tom doesn’t realize which one of my friends (*she kissed a man who bit).  
   (Complex NP Constraint, relative clause)

4. That he’ll hire someone is possible, but I won’t divulge who (*that he’ll hire is possible).  
   (Sentential Subject Constraint)

Chomsky (1972) presents a similar example, involving amelioration of extraction out of a noun complement (quite a weak violation for many speakers, but marked with * by Chomsky).

5. a. (*)I don’t know which children he has plans to send to college.  
   b. He has plans to send some of his children to college, but I don’t know which ones.

Much more recently Chung, Ladusaw, and McCloskey (1995) (CLM) give the following examples, among several others, to make the same point:

6. Sandy was trying to work out which students would be able to solve a certain problem, but she wouldn’t tell us which one (*she was trying to work out which students would be able to solve).

7. That certain countries would vote against the resolution has been widely reported, but I’m not sure which ones (*that \( t \) would vote against the resolution has been widely reported).

Merchant (2001) provides an extensive survey of such cases and presents scores of further examples, including such “Left Branch Condition” phenomena as the following:

8. He wants a detailed list, but I don’t know how detailed (*he wants a \( t \) list).

The phenomenon is clearly quite pervasive.

Kennedy and Merchant (2000) show that other ellipsis processes also sometimes repair island violations. For example, in comparative deletion constructions VPE seems to alleviate Left Branch Condition effects.

9. *[How interesting] did Brio write [a \( t \) novel]?
(10) a. Pico wrote a more interesting novel than Brio did.
   b. Pico wrote a more interesting novel than [Op Brio did write a novel].

Additional evidence that island repair is also a property of VPE comes from a contrast discussed in Fox, in preparation. Consider the dialogues in (11) and (12), focusing on the utterance produced by speaker B.

(11) A: We should hire John since he knows how much every item in this store costs.
   B: I think that's not necessary. *I know how much every item costs that John does know how much it costs.

(12) A: We should hire John since he knows how much every item in this store costs.
   B: I think that's not necessary. *I know how much every item costs that John knows how much it costs.

The relevant sentence in (11) is somewhat marginal. The reason for this marginality is that antecedent-contained-deletion (ACD) resolution relies on long-distance Quantifier Raising (QR) and extraposition (see Fox 2002, in preparation, for details). But this is not particularly important from the current perspective. The important point is that the sentence is much better than expected if VPE could not repair islands. This is evident when we compare the sentence with its counterpart in (12) where the elided VP is pronounced. The latter is totally unacceptable, an expected consequence of subject extraction across a wh-island.

Thus, actual island repair by ellipsis seems to exist. Here is one (rather old) account. Chomsky (1972) suggests that * (in his presentation) is assigned to an island when it is crossed by a movement operation. An output condition forbidding * in surface structures accounts for the deviance of standard island violations. Chomsky’s analysis is illustrated in representation (13) (put in more modern phrase structure terms).

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1 As will be discussed shortly, it is much easier to come up with examples of island repair that involve sluicing than with similar examples that involve VPE. The reason for this is that in sluicing an elided clause contains a trace, while a trace is not obligatory in the antecedent. In VPE, as we will show, a trace in the elided constituent requires a trace in the antecedent. Examples of island repair with VPE are therefore bound to be very limited. (10) and (11) are ACD examples in which the antecedent VP contains a trace of QR (QR of a DP in (11) and of a degree quantifier in (10)). A test for island repair is available in these cases only because the conditions on QR are more liberal than the conditions on overt movement (see Fox 2000, in preparation).
(13) I don’t know which children plans to send to college.

If a later operation (sluicing in this case) deletes a category containing the *-marked item, the derivation is salvaged.²

CLM present evidence that VPE does not remedy islands. They give the following example of extraction out of an adjunct, observing that VPE does not improve it:

(14) *What did you leave before they started playing it?
(15) We left before they started playing party games. *What did you leave before they did?

CLM suggest that a fundamental difference between sluicing and VPE might be at work here, the former involving LF copying and the latter PF deletion. But that fails to address the puzzle that VPE sometimes (like sluicing) does repair island violations but other times (unlike sluicing) does not. A potential solution might capitalize on Chomsky’s (1972)*-deletion outlined above. In Kennedy and Merchant’s example (10), the relevant island is presumably the NP that Op has moved out of (or some projection right above NP, as Kennedy and Merchant argue). But note that the island is no longer present in surface form. The same is true of Fox’s (11). On the other hand, in CLM’s example (15) the island is the adjunct phrase headed by before (or the wh-island), and that phrase remains in surface form. On Chomsky’s (1972) account of the remediation of islands by sluicing, that difference is significant, because on that account the * would be eliminated in (10), but would remain in (15).

² A tempting alternative explanation at this point might be to deny that the ‘‘repaired’’ sentences involve movement at all. Instead, they might involve a resumptive strategy, the resumptive pronoun being eliminated along with the rest of the IP or VP by ellipsis. However, Merchant (2001:128–146, 198–199) presents very strong arguments against this approach as a general solution.
However, such a solution initially does not seem general enough. In rejecting Chomsky’s analysis, Merchant (2001) presents cases where the island is eliminated by VPE, but the example is nonetheless unacceptable, even though the corresponding sluicing example is fine. For example, while (17) involves apparent repair by sluicing, in (18) VPE does not ameliorate the deviance.

(16) *They want to hire someone who speaks a Balkan language, but I don’t know which (Balkan language) [IP they want to hire someone who speaks t].

(17) They want to hire someone who speaks a Balkan language, but I don’t know which (Balkan language) [IP they want to hire someone who speaks t].

(18) *They want to hire someone who speaks a Balkan language, but I don’t know which (Balkan language) they do [VP want to hire someone who speaks t].

Note that in (18), as in (17), the island that is crossed (the relative clause and/or the NP containing it) does not show up at the end of the derivation. If the marker of deviance is on the island, and if the island is deleted, Merchant reasons that there is no obvious way to capture the difference in status between (17) and (18). Partly for this reason, Merchant winds up arguing that relative clauses are LF islands, rather than PF islands, so their violation cannot be repaired by a PF process (ellipsis = deletion). He then gives a completely different account of the apparent repair in (17), one where the derivation doesn’t involve an island violation in the first place. However, it turns out that even for Merchant’s PF islands, the problematic state of affairs still obtains. First, consider complementizer-trace effects, as in the following two examples, which are fine with sluicing but severely degraded without ellipsis:

(19) It appears that a certain senator will resign, but which senator [it appears that t will resign] is still a secret. (adapted from Merchant 2001:185)

(20) Sally asked if somebody was going to fail Syntax One, but I can’t remember who [Sally asked if t was going to fail Syntax One]. (CLM, cited in Merchant 2001:185)

Next there are “derived positions,” including topicalized phrases and subjects. (21) and (22) illustrate sluicing repairing a topic island violation and (23) illustrates sluicing repairing a subject island violation.

(21) *Which Marx brother did she say that [a biography of _, she refused to read]?

(22) A: A biography of one of the Marx brothers, she refused to read.
B: Which one? (Merchant 2001:185)
(23) She said that a biography of one of the Marx brothers is going to be published this year, but I don't remember which [she said that a biography of \( \tau \) is going to be published this year].

(adapted from Merchant 2001:185)

But contrary to expectation, we again find apparent failure of repair with VPE.

(24) *It appears that a certain senator will resign, but which senator it does [appear that \( \tau \) will resign] is still a secret.

(25) *Sally asked if somebody was going to fail Syntax One, but I can't remember who she did [ask if \( \tau \) was going to fail Syntax One].

(26) *She said that a biography of one of the Marx brothers is going to be published this year, but I don't remember which she did [say that \( \tau \) is going to be published this year].

Stranger still, parallel 'failure of repair' obtains even when there is no violation in the first place. Extraction out of an embedded clause is typically fine and sluicing is just as good, but VPE is bad.

(27) They said they heard about a Balkan language, but I don't know which Balkan language (they said they heard about).

(28) *They said they heard about a Balkan language, but I don't know which Balkan language they did.

Similarly for extraction out of an object NP.

(29) They heard a lecture about a Balkan language, but I don't know which Balkan language (they heard a lecture about).

(30) *They heard a lecture about a Balkan language, but I don't know which Balkan language they did.

Thus, there is indeed a difference between sluicing and VPE, but not one that directly implicates island repair. In the next section we will suggest an account of this difference.

2 A Possible Solution

As just demonstrated, the contrast between VPE and sluicing shows up whether or not the elided constituent contains an island, and it therefore cannot be attributed directly to a distinction in the island repair potential of the two constructions. Furthermore, there are cases where both constructions allow for island repair. It therefore seems reasonable to assume that all forms of deletion can repair islands.\(^3\)

\(^3\) One potential exception is Merchant's observation that the ban on preposition stranding (attested in many languages) is generally not circumvented by sluicing.
But what accounts for the fact that VPE is impossible in many environments where sluicing is very natural? Our answer to this question will rely on island repair, but in a somewhat indirect way. We argue that in the relevant environments the parallelism conditions on deletion (Parallelism) make intermediate landing sites unavailable. Avoiding the intermediate sites (one-fell-swoop movement) brings about many island violations and is therefore also not a viable option, unless the islands are repaired by deletion. Such repair is possible in sluicing since every intermediate projection is deleted. By contrast, in VPE a smaller constituent is deleted, leaving one (or more) of the islands pronounced and consequently unreppaired.

In a run-of-the-mill sluicing environment a trace in the elided constituent occupies a position parallel to that of an indefinite in the antecedent clause.

(31) Fred said that I talked to a certain girl, but I don't know which girl [Fred said that I talked to f].

The obvious question is how this difference (between a trace and an indefinite) is licensed by Parallelism. We assume, following the insight of CLM, that the indefinite must be bound by existential closure in a way parallel to the way the *wh*-dependency is bound in the sluiced clause. There are various ways of instantiating this idea. For concreteness, we follow Reinhart (1997) in assuming that both the *wh*-phrase and the indefinite NP partake in a dependency that involves quantification over choice functions.

(32) \( \exists f \text{ choice function} [\text{Fred said that I talked to } f(\text{girl})] \text{, but I don’t know which } g \text{ choice function} (\text{Fred said that I talked to } g(\text{girl})) \)

Parallelism is satisfied since the variables in the antecedent and the elided clause are bound from parallel positions. (See Fiengo and May 1994.)

The next question is how the rules of grammar license a structure such as (32). CLM claim that sluicing is a postsyntactic operation, which copies the antecedent clause *Fred said that I talked to f(girl)* into an empty position following the *wh*-phrase. Their motivation for the copying operation is twofold: (a) it yields an indefinite in the sluiced clause where one would otherwise expect a trace, and (b) it explains the island insensitivity of sluicing. We suggest that a special copying operation for sluicing can be dispensed with. The fact that something similar to an indefinite turns up in the position of the trace can be viewed as a natural consequence of the copying theory of movement (as we illustrate below). The island insensitivity, on the other hand, does not motivate a sluicing-specific explanation. Rather, it falls under a fairly broad generalization about deletion, which we tried to characterize in the previous section (island repair).

More specifically, we suggest that the word *which* is interpreted as an existential quantifier over choice functions (type \( \langle cf,t \rangle t \), where *cf* stands for \( \langle et,e \rangle \)). Such an existential quantifier cannot be interpreted
adjacent to the common noun *girl*, a position that requires a choice function. This type mismatch is resolved in the standard way—namely, by movement of the quantifier leaving a variable ranging over the individuals that are quantified over (in our particular case, choice functions). Furthermore, we assume that the movement involves pied-piping, which is resolved (as is standardly assumed) by reconstruction—that is, by deleting the pied-piped material at the head of the chain and interpreting it at the tail.

(33) which $g \lambda g' [Fred\ said\ that\ I\ talked\ to g'(girl)]$

In the antecedent clause a parallel structure is derived by existential closure over choice functions (see, e.g., Reinhart 1997, Kratzer 1997).

(34) $\exists f \lambda f' [Fred\ said\ that\ I\ talked\ to f'(girl)]$

The final structure obeys Parallelism since the elided clause is identical to the antecedent clause (modulo variable names) and since the variables in the two clauses are bound from parallel positions.

Notice that *wh*-movement in (32) involves no intermediate landing sites. There is a reason for this. If intermediate landing sites were present, Parallelism would not be satisfied; the clause containing deletion, represented in (35), would have an intermediate trace that is absent from the antecedent clause, (34) (since no movement is involved in the derivation of the latter).

(35) which $g \lambda g' [Fred\ [g' \lambda g''\ said\ g'' \lambda g'''\ that\ I\ talked\ to g'''(girl)]]$

Subsequently, the variables in the two clauses would not be bound from parallel positions and Parallelism would not be satisfied.⁴

So, Parallelism determines that *wh*-movement in sluicing cannot be successive cyclic. This seems to be problematic under the assumption that successive-cyclic movement is required by considerations of locality. But as discussed in the previous section, considerations of locality are nullified under deletion (island repair). We can therefore maintain the standard assumption that intermediate landing sites are escape hatches that allow *wh*-movement to circumvent what would otherwise be an island.⁵ Avoiding an intermediate landing site would consequently yield an island violation. However, the violation can also be circumvented if the island is deleted, and this is what we propose happens in sluicing constructions.

⁴ We assume (contra Lasnik and Saito (1984)) that intermediate landing sites are always present in the final representation. For arguments in favor of this assumption see Fox 2000 and Nissenbaum 2000. Also it is crucial for our account that intermediate landing sites will be relevant for Parallelism. This is the case if one adopts Fiengo and May’s (1994) definition of Parallelism or the slightly more relaxed condition defended in Fox 1999, 2000:chap. 4.

⁵ Roughly following Chomsky (1986), we assume that there are a multitude of intermediate maximal projections that are potential barriers.
This proposal provides an explanation of the otherwise puzzling difference between VPE and sluicing. VPE involves deletion of a smaller constituent than the clause that is elided in sluicing. For the sake of concreteness, let’s assume that VPE deletes VP and leaves Tense and Aspect pronounced. If a representation approximately like (36) were to be derived with VPE instead of sluicing, there would be two maximal projections that are not deleted and yet do not host an intermediate landing site.

(36) which g \(\lambda g' [\text{TP} \text{Fred} \text{TP} \text{Asp} \text{VP} \text{did} \langle \text{VP} \text{say that I talked to g'(girl)}\rangle] \)

The unacceptability of VPE follows if we assume that (at least) one of the two maximal projections is an island that must be circumvented by an escape hatch or by deletion. Since the islands are not deleted, the escape hatch is required and a violation of Parallelism is unavoidable.

Notice that this account of the contrast between VPE and sluicing relies crucially on the fact that movement takes place in the elided constituent but not in the antecedent constituent. Parallelism requires avoiding intermediate landing sites, and IP-deletion (sluicing) is consequently necessary. An immediate prediction of the account is that if the antecedent clause is replaced with a clause that involves movement, both VPE and sluicing should be possible. This seems to be the case, as illustrated by the fact that the contrast in (37) is largely absent in (38).  

(37) a. I know that John said that Mary read a certain book, but I don’t know which one.  
    b. *I know that John said that Mary read a certain book, but I don’t know which one he did.

(38) a. I know which book John said that Mary read, but YOU don’t know which one.  
    b. ??I know which book John said that Mary read, but YOU don’t know which one he did.

Evidence for landing sites between the subject and the VP can be found in Fox 2000 and Nissenbaum 2000.

Notice that Parallelism (via the requirement of identical dependencies) has consequences for the structure of material that is outside the elided constituent. If we eliminate the Spec,CP trace in (35) and elide the VP as in (i), the structure would still not be parallel to (34).

(i) which g \(\lambda g' [\text{Fred} [g' \lambda g'' \text{did} \langle \text{say that I talked to g''(girl)}\rangle] \)

This follows from Fiengo and May’s (1994) definition of Parallelism as well as Fox’s (2000:chap. 4).

It is also worth noting that a structure such as (i) involves one-fell-swoop movement followed by successive-cyclic movement and therefore might violate a possible generalization of the ban on improper movement. Metaphorically, once you get on the express train, you can’t switch to the local short of the destination.

Some speakers find (38) marginal, but no one we questioned finds it as bad as (37b). See footnote 10.
3 Remaining Issues

In the constructions we have investigated in this squib, the NP in the antecedent clause that corresponds to the \textit{wh}-trace of the sluiced clause (the corresponding NP) is an indefinite NP. We assumed that this indefinite remains in situ at LF and serves as an argument of a choice function variable bound by existential closure. Parallelism is satisfied, we argued, if \textit{wh}-movement in the sluiced clause takes place in one fell swoop. Such movement, in turn, is possible as long as every barrier (i.e., every projection that requires intermediate landing sites) is deleted, something that occurs in sluicing but not in VPE.

We will finish with a few words about a slightly different environment in which sluicing is licensed. Consider the following examples from Merchant, in press:

(39) a. He likes ABBY, but I don't know who else (he likes).
    b. He said he likes ABBY, but I don't know who else (he said he likes).

Here the corresponding NP is not an indefinite. How, then, is sluicing licensed? We tentatively adopt Merchant's suggestion that focused constituents can undergo LF movement (as originally suggested by Chomsky (1976) and more recently defended by Krifka (1996)). If the landing site of this movement corresponds to that of \textit{wh}-movement, the LF constructions will satisfy Parallelism.

(40) a. [ABBY]$_1$ [he likes t$_1$], but I don't know [who else]$_1$ (he likes t$_1$).
    b. [ABBY]$_1$ [he said he likes t$_1$], but I don't know [who else]$_1$ (he said he likes t$_1$).

This, if correct, slightly complicates the situation. To tell whether Parallelism is licensed in a sluicing construction, we must determine the LF structure of the antecedent clause. If the corresponding NP undergoes LF movement, sluicing should be possible. This reasoning is supported, as Merchant (in press) points out, by the observation that sluicing with a nonindefinite NP correlate is island sensitive.

(41) *The detective ruled out the possibility that Fred killed ABBY, but I don't know who else (the detective ruled out the possibility that Fred killed).

The observation is explained if we assume that focus movement obeys island constraints. (See Krifka 1996 for arguments to this effect.) Since the corresponding NP is not an indefinite that might be bound by existential closure, the only way for Parallelism to be satisfied is by focus movement, which is ruled out by the intervening island.

Merchant points out a potentially problematic consequence of his suggestion in the context of our proposal. Specifically, he points out that in environments that allow the corresponding NP to undergo LF movement, one might expect the distinction between VPE and sluicing to disappear. (The expectation is justified if LF movement involves
successive-cyclic steps that correspond to the steps of \textit{wh}-movement.) Merchant argues that the expectation is false, on the basis of the contrast between the sentences in (39) and those in (42).

(42) a. ?He likes ABBY, but I don't know who else he does \textlangle likes\textrangle.

b. ??He said he likes ABBY, but I don't know who else he did \textlangle he said he likes\textrangle.

While this contrast is, indeed, problematic, we observe that the ellipsis cases in (42) are not as bad as comparable cases in which the corresponding NP does not undergo LF movement, such as (37). To our ears they are similar in status to (38b), and therefore we suggest that these examples should be accounted for by a condition independent of the one responsible for the main fact we have discussed.

4 Conclusion

In this squib we have argued that various contrasts between sluicing and VPE can be made to follow from the (undeniable) fact that sluicing targets a bigger constituent. The argument is based on various theoretical assumptions that have been made in the literature, and if successful, it provides further evidence in favor of these assumptions: that deletion (in all its forms) is capable of island repair, that successive-cyclic movement is a consequence of considerations of locality, and that some position between VP and IP is an intermediate landing site. Furthermore, if our proposal is correct, there is no need for a taxonomy of ellipsis operations of the sort advocated by CLM, and the taxonomy of islands argued for by Merchant can be eliminated or at least substantially reduced.

References


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\footnote{We assume that indefinites, which are (or at least can be) interpreted as choice function arguments, do not undergo LF movement out of tensed clauses. This assumption might follow from the economy condition argued for in Fox 2000. See Legate 1999 for an argument that choice function indefinites do undergo short-distance QR. Legate's conclusions are consistent with those of Fox 2000. Taken together, these proposals would block nonlocal QR.}

\footnote{Merchant's (in press) \textsc{Max-Elide} might well be the culprit.}


Iatridou (2000) presents a morphosemantic theory of counterfactual conditionals in which past tense morphology is crucially implicated. Some subsequent work investigates how counterfactuality is realized in languages that lack tense (see Rackowski 1998 for Tagalog and Nevens 2002 for Chinese). In this squib I address a different issue: the morphosemantics of counterfactuality in Warlpiri, a language that has past morphology, but fails to use it in counterfactuals. I show that despite this prima facie challenge, the Warlpiri data provide additional support for Iatridou’s theory.

Iatridou (2000) observes for a range of languages that counterfactuals necessarily display past tense morphology, which fails to contribute a past interpretation. This is illustrated in (1) for English future less vivid (FLV) conditionals, present counterfactuals (PresCF), and past counterfactuals (PstCF).

\begin{enumerate}
\item (1a) \textit{FLV} (I don’t think he will take my advice, but . . .)
If he took my advice, he would get the job.
\item (1b) \textit{PresCF} (He isn’t friendly, but . . .)
If he were friendly, I would invite him.
\item (1c) \textit{PstCF} (I didn’t have the car yesterday, but . . .)
If I had had the car, I would have gone for a drive in the countryside.
\end{enumerate}

Thus, (1a) receives a future interpretation and (1b) receives a present interpretation, despite the presence of past morphology in each.\textsuperscript{2} In addition, (1c) exhibits two layers of past morphologically, but only one layer temporally. Thus, although it has the morphology of the pluperfect, it is not interpreted as a past of the past; instead, it is interpreted as a simple past. Thus, the PstCF also involves past morphology that does not receive its usual past tense interpretation. Iatridou proposes that the past morpheme is better analyzed as an exclusion feature (ExclF)—that is, an underspecified morpheme that results in a past tense interpretation when it ranges over times and a counterfactual

\textsuperscript{1} Iatridou argues that the FLV conditional is essentially a future counterfactual, expressing the speaker’s belief that the actual world will not become a world in which the proposition contained in the antecedent is true. It thus contrasts with the future neutral vivid (FNV) conditional in which the speaker remains agnostic about the likelihood that the actual world will become a world in which the proposition contained in the antecedent is true.

\begin{enumerate}
\item (i) If John takes the medicine, he will get better.
\end{enumerate}

\textsuperscript{2} The FLV and PresCF conditionals exhibit identical morphological elements, being distinguished only by the Aktionsart of the predicate. Telic predicates and stage-level statives result in FLV conditionals whereas individual-level statives and stage-level statives result in PresCF conditionals. See Iatridou 2000 for details.
interpretation when it ranges over worlds. ((2) is adapted from Iatridou 2000:246.)

\[(2) \text{ExclF} = T(x) \text{ excludes } C(x)\]

\[T(x) \text{ stands for ‘‘Topic}(x)’’ (i.e., ‘‘the } x \text{ that we are talking about’’). \] \[C(x) \text{ stands for ‘‘the } x \text{ that for all we know is the } x \text{ of the speaker.’’}\]

a. ExclF(t) = the topic time excludes the time of utterance
   (‘‘the time interval that we are talking about excludes the time interval that for all we know is the time of the speaker’’)

b. ExclF(w) = the topic worlds exclude the actual world
   (‘‘the worlds that we are talking about exclude the worlds that for all we know are the worlds of the speaker’’)

In FLV and PresCF conditionals, then, the past morphology is the realization of ExclF(w), yielding counterfactuality. In PstCF conditionals one layer of past morphology realizes ExclF(w), whereas the other realizes ExclF(t), in order to express both past tense and counterfactuality.

Iatridou further observes that in many languages imperfective aspectual morphology in counterfactuals also fails to receive its usual interpretation; in counterfactuals it is compatible with either a perfective or an imperfective interpretation. Iatridou proposes that “[w]hen the temporal coordinates of an eventuality are set with respect to the utterance time, aspectual morphology is real; when the temporal coordinates of an eventuality are not set with respect to the utterance time, morphology is always Imp [imperfective]” (p. 262).

Turning to Warlpiri, we observe that tense and aspect information appears in two separate positions in the clause: a second-position clitic cluster that also includes subject and object agreement, and a verbal suffix. The clitic position includes the present imperfective morpheme \(ka\), (3a), the past imperfective morpheme \(lpa\), (3b), and the perfective morpheme \(\emptyset\), (3c). The suffixal slot on the verb may be filled by a greater range of elements, and the phonological realization of these elements varies according to the conjugation class of the verb. The morphemes relevant here are the nonpast (3a), past (3b), and irrealis (3c).\(^4\)

\[(3) \quad \text{a. Ngaju } ka-r\text{n}a \text{ w}a\text{n}gka-mi. \]

\[\text{I } \text{PRES.IMPF-1SG speak-NPST} \]

‘I am speaking.’

(Hale, Laughren, and Simpson 1995:1430)

\(^3\) The past interpretation is predicted under the assumption that future is a modality rather than a tense (e.g., Palmer 1986, Kamp and Reyle 1993, Vlach 1993).

\(^4\) All examples are from the Warlpiri Dictionary Project (1993) unless otherwise indicated; glosses are my own.
b. Wati-\(lpa\)-lu  \(ya-nu\).

\( \text{man-PST.IMPF-3PL} \text{ go-PST} \)

‘The men were leaving.’

(Hale, Laughren, and Simpson 1995:1435)

c. Nama-ju  \(\emptyset\)  lanja-ngka  \(yuka-ja\)  ngarra-\(\emptyset\)-rra

\( \text{ant-TOP} \text{ PERF ear-LOC} \text{ enter-PST} \text{ FUT.C-PERF-1SG} \)

\( \text{pali-}yarl\).a

\( \text{die-IRR} \)

‘An ant got into my ear and I almost died.’

It is important to notice that the present/past distinction in the imperfective is not interpreted independently of the nonpast/past distinction on the verb. That is, (3b) can be interpreted as having only one layer of past (i.e., ‘The men were leaving’ rather than ‘The men had been leaving’), despite the presence of two morphemes apparently realizing past tense.\(^5\) In the initial clause of (3c), the past suffix on the verb results in a past interpretation without the past imperfective.\(^6\) Thus, I propose that the clitic slot is a purely aspectual slot, \(ka\) and \(lpa\) being contextual allomorphs of the imperfective.\(^7\)

\( (4) \)  

\( \text{perfective} \rightarrow \emptyset \)  

\( \text{imperfective} \rightarrow \text{ka} / \text{nonpast} \)  

\( \text{imperfective} \rightarrow \text{lpa} / \text{past} \)

Turning to counterfactuals, consider (5) and (6), which illustrate the FLV and PresCF conditionals, respectively.

\( (5) \)  

\( \text{FLV} \)

\( a. \)  

\( \text{Kaji-}\text{lpa-}n\text{pa} \text{ yuju} \text{ kiji-karla} \text{ karru-ngka,} \)

\( \text{NFACT.C-PST.IMPF-2SG} \text{ shelter erect-IRR} \text{ creek-LOC} \)

\( \text{kaji-}k\text{i-}k\text{g} \text{ ngawarra-}r\text{lu} \text{ muku-}r\text{ra} \)

\( \text{NFACT.C-PRES.IMPF-2SG.OBJ} \text{ floodwaters-ERG all-thither} \text{ ka-nyi.} \)

\( \text{carry-NPST} \)

‘If you were to erect a shelter in the creek bed, the floodwaters would carry it all away on you.’

\( \text{5} \) In fact, the interpretation involving two layers of past (‘The men had been leaving’) is also possible, but independent of the past imperfective morphology. This interpretation is discussed below. What is crucial to the discussion here is that the interpretation involving a single layer of past is available.

\( \text{6} \) Below we will see that the converse is not true. The past imperfective may cooccur with the irrealis suffix instead of the past suffix, in which case the sentence is no longer interpreted as past.

\( \text{7} \) The analysis of \(lpa\) will be sharpened below.
b. *Kaji-lpa-ji* paji-karla nyangunru-rlu,
\[ m \text{FACT} \cdot \text{PST} \cdot \text{IMPF} \cdot \text{1SG OBJ sting-IRR} \] 3-ERG
kaji-ka-rna-rla marlaja
\[ m \text{FACT} \cdot \text{PRES} \cdot \text{IMPF} \cdot \text{1SG DAT because.of} \]
rularula-jarri-mi nyangunru-ku-ju
swollen-INCH-NPST 3-DAT-TOP
nganayi-ki —waripakarnu-ku.
whatchamacallit-DAT —snake-DAT

‘If it were to bite me I would swell up as a result, from that little green snake.’

(6) *PresCF*

a. *Kaji-lpa-npa* yangka nyuntu-lku
\[ m \text{FACT} \cdot \text{PST} \cdot \text{IMPF} \cdot \text{1SG CS you-CS} \]
nyina-karla jinta, yantarli, ngula
sit-IRR alone person.at.home then
kaji-ka-ngku jamirdi-nyanu-rlu
\[ m \text{FACT} \cdot \text{PRES} \cdot \text{IMPF} \cdot \text{2SG OBJ mother’s.father-POSS-ERG} \]
payi-rni . . .
ask-NPST

‘If you were just sitting alone, at home, then your mother’s father might ask you . . .’

b. Yapapanu *kaji-lpa-lu karri-yarlu,*
\[ m \text{FACT} \cdot \text{PST} \cdot \text{IMPF} \cdot \text{3PL stand-IRR} \]
person many
kaji-ka-rna raakujarra-yirra-rni yungu-rna
\[ m \text{FACT} \cdot \text{PRES} \cdot \text{IMPF} \cdot \text{1SG clear-put-NPST CAUS-C-1SG} \]
nya-nya-rla.
see-NPST-THITHER

‘If there were a lot of people, I would clear a passage in order to see.’

The complementizer used to introduce the antecedent of the conditional is the nonfact complementizer *kaji:* this is not the locus of counterfactuality in Warlpiri, however, since *kaji* has a range of uses, including ‘if’, ‘when’, ‘while’, ‘until’, ‘might’.

Turning to the tense/aspect morphology, we discover that the verb bears, not the past suffix as expected, but an irrealis suffix. Thus, Warlpiri is a prima facie counterexample to Iatridou’s claim that past morphology is an underspecified morpheme expressing either past tense or counterfactuality.

However, when we consider the aspectual clitics in counterfactuals, we discover that there is indeed reason to posit ExclF in Warlpiri. FLV and PresCF conditionals in Warlpiri show imperfective aspect. Further, as predicted, although imperfective aspect morphology receives an imperfective interpretation outside of conditionals, in counterfactuals it receives either an imperfective interpretation, as seen in the examples in (6), or a perfective interpretation, as in (5) and (7).
(7) a. Kaji-\textit{lp}a-npa \textit{ya-ntarla-rni} kuyuwangu, \\ \textit{NFACT.C-PST.IMPF-2SG} come-\textit{IRR-HITHER} meat-\textit{WITHOUT} \\ \textit{kapu-\textit{\textsc{a}}-rna-ngku} \textit{kulu-jarri\text{\textsc{a}}}. \\ \textit{FUT.C-PERF-1SG-2SG.OBJ} angry-\textit{become-NPST} \\
‘If you come back without any meat, I’ll be angry with you.’

b. Murdu-kayi-parnta-r\textit{\textsc{a}}-ngu-\textit{rlu} manu yangka \\ thud-loud-\textit{having EXAMPLE-ERG} or \textit{aforementioned} \\ yapa-r\textit{\textsc{a}}-ngu-\textit{rlu} — \textit{kaji-\textit{lp}a-\textit{lu}} \\ \textit{person-EXAMPLE-ERG} — \textit{NFACT.C-PST.IMPF-3PL} \\ kati-\textit{karla} wirliya-\textit{rlu}, \textit{ngula ka-\text{\textsc{a}}u} \\ \text{tread.}\text{-}\text{IRR} \text{foot/track-ERG FACT.C PRES.IMPF-3PL} \\ ngarri-rni kulpurrpari-\textit{\textsc{a}}ki. \\ \textit{call-NPST} \textit{squashed-CS} \\
‘Like if they should run it over with a car or should a person trample it with his foot, then they call it (kulpurrpari).’

Crucially, it is the contextual allomorph of the imperfective morpheme in the environment of past tense, \textit{lp}a (see (4)), that is found in these counterfactuals, although there is no past tense in the sentences. Therefore, I propose that \textit{lp}a is the allomorph of the imperfective found in the context of ExclF, ExclF being realized as the past suffix when it ranges over times and the irrealis when it ranges over worlds.

(8) imperfective $\rightarrow$ \textit{lp}a / ExclF

In contrast to the FLV and PresCF conditionals, future neutral vivid (FNV) conditionals (which do not involve counterfactuality) do not display the \textit{lp}a imperfective allomorph; nor do they display the irrealis verbal suffix.

(9) a. Kaji-\textit{\textsc{a}}-\textit{npa-ju} \textit{marlu pi-\textit{nyi}}, \\ \textit{NFACT.C-PERF-2SG-1SG.OBJ} kangaroo \textit{kill-NPST} \\ \textit{kapu-r\textit{\textsc{a}}-ngku} \textit{mani yi-\textit{nyi}}. \\ \textit{FUT.C-1SG-2SG.OBJ} money \textit{give-NPST} \\
‘If you kill me a kangaroo, I’ll give you some money.’

b. Kaji-\textit{\textsc{a}}-\textit{r\textit{na}} karnta \textit{ma-\textit{ni}}, \\ \textit{NFACT.C-PERF-1SG woman get-NPST} \\ \textit{kapu-\textit{\textsc{a}}-\textit{ra}-\textit{ju}} \textit{marda-\textit{\textsc{a}i}}. \\ \textit{FUT.C-PERF-1SG-1SG.OBJ} keep-NPST \\
‘If I get a wife, I will keep her for myself.’

Iatridou shows that asaspectual morphology in FNV conditionals is unrestricted and interpreted, as in matrix future clauses. However, no examples of a FNV conditional with imperfective morphology can be found in the Warlpiri dictionary. This appears to be due to a restriction on the future in Warlpiri in general: even when the form in ques-
tion is interpreted as a future imperfective, perfective morphology is required.  

(10) a. Kapi-θ-npa-jana jarda piki-nguna  
\[ \text{FUT.C-PERF-2SG-3PL.OBJ sleep in.danger-sleepNPST} \]  
warrura-kurlu.  
\[ \text{wrong.skin-WITH} \]  
‘You will be sleeping with your wrong skin wife in danger.’  
b. Kirntangi marnkurra-ku kapi-θ-rna  
\[ \text{FUT.C-PERF-1SG} \]  
month three-DAT nyina-mi-yi yatijarra Lajamanu-rla.  
\[ \text{be-NPST-DURATIVE north Lajamanu-LOC} \]  
‘I will be staying up north at Lajamanu for three months.’  

Indeed, when an imperfective aspect marker is introduced into the FNV sentences in (9), the interpretation is no longer future; instead, it is present epistemic. Compare (9b) with (11).

(11) Kaji-ka-rna karnta ma-ni.  
\[ \text{NFACT.C-PRES.IMPF-1SG woman get-NPST} \]  
‘I might/am likely to get a wife.’  

Thus, the behavior of the aspectual morphology in Warlpiri FNV conditionals is also that of future sentences in general.

To complete the discussion, consider the Warlpiri past counterfactual construction.

(12) PstCF

a. Kala kaji-θ-rna rupu marda-karla, ngula  
\[ \text{NFACT.C-PERF-1SG rope have-IRR} \]  
but kapi-θ-rna puuly-marda-karla rupu-ngku-ju.  
\[ \text{FUT.C-PERF-1SG catch-have IRR rope-ERG-TOP} \]  
‘Well, if I had had a rope, then I would have caught it with the rope.’  
b. Kaji-θ-rna yaku-ma-ntarla, ngarra-θ-ju  
\[ \text{NFACT.C-PERF-1SG bit.by.bit-getIRR FUT.C-PERF-1SG.OBJ} \]  
marda kakarda kati-karla.  
maybe nape.of.neck step.on-IRR  
‘If I had dug it out, it might have fallen in on my neck.’

Additional evidence for the incompatibility of the future with the expression of imperfective aspect comes from the western dialects of Warlpiri, which have a future morpheme that is suffixed onto the verb. This suffix cannot cooccur with either imperfective aspect clitic.

(i) Ngaka-(*lpa/*ka)-rna-ngku nya-ngku.  
\[ \text{Ngaka-(PST.IMPF/PRES.IMPF)-1SG-2SG.OBJ see-FUT} \]  
‘I’ll see you later./I’ll be seeing you later.’

Thanks to an anonymous reviewer for bringing this to my attention.

I would like to thank an anonymous reviewer for this example.
Unsurprisingly, we find the irrealis suffix ExclF(w) appearing on the verb. However, there is a question about the source of the past tense interpretation of the sentences, as no past tense morpheme appears. Given that past tense and irrealis both appear exclusively in the single verbal suffix position, Warlpiri cannot morphologically mark two ExclF morphemes in a single clause.

The effects of this morphological restriction can also be witnessed in sentences requiring two ExclF(t) morphemes for the two layers of past of the “pluperfect” meaning. The examples in (13) display the ExclF(t) past suffix on the verb without any additional past morphology, yet they are interpreted as pluperfect.

    yangka kuja-∅ munju-jarri-ja.
    aforementioned FACT.C-PERF blunt-INCH-PST
    ‘They sharpened the stone-axe which had become blunt.’

b. Kuja-∅-rnalu jarrampayi-jarra pu-ngu, . . .
    FACT.C-PERF-1PL.EXCL creek.goanna-DU kill-PST
    ‘When we had killed the two creek-goannas, . . .’

Importantly, this morphological pattern is ambiguous. In (14) the same combination of the perfective and the past suffix results in a perfective simple past, as opposed to a pluperfect.

(14) a. Pu-ngu-∅-rnalu-nyanu jarrampayi wiri-jarra.
    kill-PST-PERF-1PL.EXCL-REFLEX creek.goanna big-DU
    ‘We killed ourselves two big creek-goannas.’

    only-PERF-1SG.OBJ I block-stand-PST
    ‘I protected you from that trouble.’

Furthermore, sentences with imperfective morphology are also ambiguous between an interpretation with one layer of past and an interpretation with two layers of past.

(15) Wati-lpa-lu ya-ku.
    man-PST.IMPF-3PL go-PST
    ‘The men were leaving./The men had been leaving.’

Therefore, it appears that positions for two ExclF features are semantically present in the language; however, one of these positions is morphologically unexpressed. The examples in (12) indicate that it is the lower position that is unexpressed—these are interpreted as irrealis over past, and the morpheme that appears is the irrealis suffix rather than the past.

Thus, the PstCF conditionals in Warlpiri also conform to expectations: they exhibit ExclF(w) to express counterfactuality, the past interpretation being achieved through the means available to the language, in this case a morphologically unexpressed ExclF(t).

In conclusion, Warlpiri counterfactual conditionals support the
morphosemantic analysis of counterfactuality developed by Iatridou (2000). Warlpiri differs from languages previously studied in having distinct morphological realizations for ExclF(t) and ExclF(w); however, allomorphy in the imperfective aspectual clitic supports the existence of an underspecified ExclF(x) morpheme in Warlpiri as well. Furthermore, Warlpiri future less vivid and present counterfactual conditionals display uninterpreted imperfective aspectual morphology, as expected. Finally, Warlpiri lacks the morphological resources to mark two occurrences of ExclF in a single clause; therefore, in past counterfactuals, as in pluperfect constructions, a lower ExclF(t) is semantically present but morphologically unexpressed. An interesting topic for further research would be to investigate the range of strategies used by languages with this morphological limitation.

References


Hoji (1998) has revived interest in the issue of whether Chinese, Japanese, and Korean sentences exemplified by (1) should be analyzed as coordinate structures involving VP-ellipsis, similar to the English sentence in (2), or simply as instances of object ellipsis.

(1) John kanjian-le tade mama, Bill ye kanjian-le.
    John saw his mother Bill also saw

(2) John saw his mother and Bill did as well.

Obviously, the Chinese sentence (1) differs from the English sentence (2) in syntactic form. The verb is repeated in the coordinate structure in (1) because, according to Huang (1988, 1991), Chinese lacks a proform corresponding to do in English. Huang argues for the VP-ellipsis analysis against the null object analysis on two empirical bases: ambiguity and locality effects. Both (1) and (2) are ambiguous between a strict reading and a sloppy reading. In (3) as well as in (4), the person seen by Bill is either John’s mother or Bill’s mother, but not Mary’s mother. In the sloppy identity interpretation, the antecedent seems to be restricted to an NP in the local domain.¹

(3) John kanjian-le tade mama, Mary zhidao Bill ye kanjian-le.
    John saw his mother Mary knew Bill also saw

(4) John saw his mother and Mary knows that Bill did as well.

Huang concludes that Chinese sentences like (1) should be analyzed as involving a “null VP in disguise.” Otani and Whitman (1991) argue that the same analysis applies to Japanese and Korean.

Hoji (1998) uses Japanese examples to show that what these authors call the sloppy reading is not a genuine sloppy identity reading, but what he terms a sloppy-like reading, and that its existence is independent of VP-ellipsis. In what follows I will call Chinese, Japanese, and Korean sentences like (1) null object constructions (NOCs), fol-

¹ The locality condition on sloppy identity in an embedded clause has been questioned. Fiengo and May (1994:106) cite examples showing that it is not observed in some English cases. Hoji (1998:136–138) points out that the locality effects in Japanese observed by Otani and Whitman (1991) arise from independent semantic functions rather than the syntactic properties of VP-ellipsis. Kim (1999) provides Korean examples supporting Hoji’s position. The same is true of Chinese embedded clauses. I will not address locality effects further in this squib.
lowing Hoji (1998), and English sentences like (2) VP-ellipsis constructions (VPECs). Although Chinese does not have an auxiliary equivalent to English *do*, it does have its own VPEC. As pointed out by Li (1998), the linking verb *shi* ‘be’ may serve as a pro-VP, though it is not so called traditionally.

(5) John xihuan tade mama, Bill ye shi. John like his mother Bill also be ‘John likes his mother, and Bill does as well.’

Some modal verbs, such as *hui* ‘will’, can also be used in the second clause and followed by an elided VP. But compared with *do*, they are restricted in tense, aspect, and modality. For instance, *shi* cannot be used to replace a verb phrase when either the first or the second clause is negative in form, and modals like *hui* are limited to future contexts. So not every NOC has a corresponding VPEC.

The issue to be addressed is whether only the Chinese VPEC behaves like the English VPEC as one would expect or whether the Chinese NOC does too, as Huang and Otani and Whitman claim. To evaluate their claim that the NOC is a VPEC in disguise, one should determine whether the NOC also shares other properties with the VPEC and double-check whether the NOC indeed shares with the VPEC properties such as ambiguity. I will provide evidence from Chinese supporting Hoji’s challenge to the VP-ellipsis analysis.

1 Adverbial Ellipsis

One property of the VPEC is the requirement that adverbials in the second conjunct must be deleted along with the verb if they are identical to those in the first conjunct. When hearers interpret a VPEC, they must recover the deleted adverbials.

(6) John saw Mary in Paris, and Peter did, too.

(7) John carefully cleaned his teeth, and Peter did as well.

The sentence in (6) does not have the interpretation that Peter saw Mary in a city other than Paris. Likewise, (7) is not used to describe the fact that though Peter did clean his teeth, he cleaned them carelessly.

This requirement on adverbial ellipsis also holds for the VPEC in Chinese.

(8) John hui zixide shua ya, Peter ye hui. John will carefully brush teeth Peter also will

(9) John mei tian shua san bian ya, Peter ye shi. John every day brush three times teeth Peter also be

The sentence in (8) means that John will clean his teeth carefully and Peter will also clean his teeth carefully. The one in (9) means that John and Peter each brush their teeth three times every day.

Now let us examine cases of the NOC, coordinate structures where the same verb appears in both conjuncts.
(10) John zixide shua-le ya, Peter ye shua-le.
John carefully brushed teeth Peter also brushed
(11) John mei tian shua san bian ya, Peter ye shua.
John every day brush three times teeth Peter also brush

The sentence in (10) does not exclude the possibility that Peter brushed his teeth carelessly. The one in (11) means that John brushes his teeth three times a day and Peter also brushes his teeth (though the number of times he does so isn’t specified). The contrast between (11) and (9) with respect to the interpretation of the VP becomes even clearer when this sentence is added:

(12) Keshi Peter zhi shua yi bian.
but Peter only brush one time
‘But Peter only brush (them) once.’

This sentence can follow (11), but it cannot follow (9) without causing a contradiction.

A few remarks are in order about the structure of the Chinese VP (though space precludes a full discussion). Most adverbials occur preverbally, with manner adverbs such as zixide ‘carefully’ in (8) and (10) staying closer to the verb than others. In (9) and (11) san bian ‘three times’ appears between the verb and its object. They are VP-internal adverbials and must be elided along with the verb in the VPEC. It is often assumed that verbs in some languages (e.g., Semitic, Celtic, Romance, and Balkan languages) can raise out of the VP overtly, resulting in an empty VP. Some researchers believe that Chinese is one of these languages (Doron 1999:124). But if preverbal adverbials like zixide ‘carefully’ and meitian ‘every day’ are VP internal, so are the verbs. Then overt V-raising does not take place in Chinese. Even if it does, sentences like (11) provide evidence against the VPEC analysis.

I conclude that the Chinese VPEC and the English VPEC share the property of adverbial ellipsis, but the Chinese NOC differs from both of them.

2 Deletion Anaphora

Grinder and Postal (1971) argue that VP anaphora of the type shown in (13) must involve a syntactic deletion rule. The pronoun it must have a referential expression as its antecedent at some stage of derivation; otherwise, (13) will be as ungrammatical as (14).

(13) I’ve never ridden a camel, but Ivan has and he says it stank horribly.
(14) *I’ve never ridden a camel, and it stank horribly.

They conclude that in (13) a null VP containing the antecedent of it must be syntactically present to the right of the auxiliary has. Hankamer and Sag (1976:90) propose the name deletion anaphora, as
distinguished from deep anaphora. The latter is not derived by deletion and can be interpreted under pragmatic control.

Let us see if the same analysis applies to the Chinese NOC.

(15) John congglai meiyou kanjian-guo yige jinfa xiaohai, er
John ever not see-ASP one blond child but
Bill kanjian-guo. *Bill shuo ta hen piaoliang.
Bill see-ASP Bill says he very handsome
‘John has never seen a blond child, but Bill has. Bill says he was very handsome.’

If the Chinese NOC in (15), analogous to the English VPEC in (13), had a VP with internal structure containing an NP yige jinfa xiaohai ‘a blond child’ present at some stage of derivation, then this NP should qualify as the antecedent of the pronoun in the subsequent sentence. Unfortunately, it is impossible to test a corresponding sentence exemplifying the genuine VPEC. To construct a Chinese example corresponding to the English one used by Grinder and Postal (1971), the first clause must be negative and the second positive. In such a case shi cannot be used.2

Can (15) be used as counterevidence against the null object analysis as well? No. The empty object need not be identical lexically and structurally to the overt object in the first conjunct of the coordinate structure. Identity is required in VP-deletion, but not in constructions containing empty objects in general. The contrast between (15) and (16) distinguishes the two competing analyses.

2 As noted earlier, the proform shi can be used when both clauses of the coordinate structure are positive.

(i) John hen xihuan Mary, Bill ye shi.
John very much likes Mary, Bill also be
‘John likes Mary very much and Bill does as well.’
(ii) *John bu xihuan Mary, er Bill shi.
John not like Mary, but Bill be
(iii) *John hen xihuan Mary, er Bill bu shi.
John very much like Mary, but Bill not be

In (iv) both clauses of the coordinate are in the positive form and, unlike in (15), the following sentence is grammatical.

(iv) John kanjian-guo yige jinfa xiaohai, Bill ye kanjian-guo Bill
John see-ASP one blond child Bill also see-ASP Bill
shuo ta hen piaoliang.
says he very handsome

However, in the natural interpretation Bill and John saw one and the same blond child. The pronoun ta in the next sentence refers to this specific person. So (iv) is different from Grinder and Postal’s example, which does not include a referring expression that can serve as the antecedent of the pronoun.
Although preceded by *yige* ‘one’, the NP in the first conjunct has a type reading, meaning blond children in general, rather than a token reading referring to a particular child. If the gap in the second conjunct is a copy of the lexical-syntactic form of the preceding NP, it should be capable of serving as the antecedent of the singular pronoun *ta*.

The fact that it can only be the antecedent of the plural pronoun *tamen* or an empty category shows that the gap merely inherits the semantic property of a type reading from the preceding NP.\(^3\)

### 3 Availability of a Third Reading

Hoji (1998) points out that the Japanese NOC allows readings aside from the strict one and the sloppy one. Kim (1999:265) agrees with him and argues that “the most compelling argument against the VP-ellipsis account comes from the fact that in languages of the Japanese/Korean type, the syntactic domain of reconstruction for an interpretation of a null object cannot be restricted to the antecedent VP but may include the entire antecedent clause.” The Chinese sentence in (17) is a translation of Kim’s Korean example (20), with some minor changes to make the Chinese sentence more idiomatic. In Chinese a third reading is also possible. In a context in which people know that Mike hit his son first and then Jeanne hit Mike, one can say:

\[
\text{(17) Mike xian da-le tade erzi, Jeanne cai da de.} \\
\text{Mike first hit his son Jeanne then hit particl.} \\
\text{‘Mike hit his son first, then Jeanne hit (somebody).}^{1}\]

\(^{3}\) Some Chinese speakers prefer an empty category to an overt plural object. But they all agree that either is much better than an overt singular object.

\(^{4}\) Chinese tends to use plural or null forms anaphoric to generic NPs. The contrast between (15) and (16) correlates with that between (i) and (ii).

(i) Bill kanjian-guo jinfa xiaohai. *Bill shuo ta hen piaoliang.  
\text{Bill see-ASP blond child Bill says he very handsome} \\
\text{‘Bill saw blond children. Bill says he was very handsome.’}

(ii) Bill kanjian-guo jinfa xiaohai. Bill shuo (tamen) hen piaoliang.  
\text{Bill see-ASP blond child Bill says they very handsome} \\
\text{‘Bill saw blond children. Bill says they were very handsome.’}

The empty objects in the second conjuncts of (15) and (16) are not construed as coreferential with the overt objects in the first conjuncts. They are construed like empty objects in independent sentences, as in (i) and (ii).
In fact, as Kim observes, the reference of the null object is not limited to antecedents syntactically present in the preceding sentence. Suppose that Mike’s son and Jeanne’s daughter misbehaved and so Mike punished his son and Jeanne her daughter. In such a context one can still use (17) with a null object referring to Jeanne’s daughter. If there is a null object following *kanjian* ‘see’ in (1), there is one following *da* ‘hit’ in (17) as well.

Now consider (18).

(18) Mike da-le tade erzi, Jeanne ye shi.
Mike hit his son Jeanne also be
‘Mike hit his son, then Jeanne did as well.’

There is a sharp contrast in interpretation between (17) and the genuine VPEC in (18). In the latter only the strict reading and the sloppy reading are available.

Is it possible to obtain a third reading in English sentences similar to (17)? Consider (19).

(19) Mike hit his son first and then Jeanne also did.

Since *hit* is a transitive verb, it cannot be repeated without the presence of an object. When an auxiliary is used, the object and the verb are elided together. In other words, (19) is a VPEC and therefore excludes a third reading. So (19) and (17) are not exact counterparts. Nor are (2) and (1). Why are there no English sentences structurally parallel to the Chinese NOC, containing a verb but no object in the second clause? Now we are approaching a crucial issue: crosslinguistic differences in transitivity. This issue must be addressed before we can make a meaningful comparison between Chinese and English with regard to VP-ellipsis and NP-ellipsis.

Throughout the examples in Huang 1988, 1991, only two verbs are used: *xihuan* and *kanjian*. The English semantic counterpart of *xihuan* is *like*. But the latter cannot be intransitive except in some idiomatic expressions (e.g., *if you like*). The English counterpart of *kanjian* is *see*. Its transitive and intransitive uses differ in meaning. The perceptive use (e.g., *I saw him*) is transitive, but the cognitive use (e.g., *Oh, I see*) is intransitive. Thus, speaker B’s answer is incorrect if the two occurrences of *see* are intended to have the same meaning.

(20) A: Did you see John?
   B: *Yes, I saw.

But its Chinese counterpart is fully grammatical.

(21) A: Ni kanjian-le John ma?
      you saw John QUESTION-MARKER
      B: Wo kanjian-le.
      I saw

So the difference between the two languages is a more general one with respect to the analysis of an empty object or implicit argument, not one specially found in the coordinate construction.
One may assume that Chinese verbs like xihuan, kanjian, and da are transitive but can be followed by a null object as well as an overt one. Alternatively, one may assume that a transitive verb always takes an overt object but it may have an intransitive homonym that does not take an object. Of course, one should be consistent. For instance, one should not analyze the verb in (1) as transitive and the one in (17) as intransitive. Whichever position one takes, the interpretation of a structure lacking an overt object after the verb can only be interpreted with respect to its context. Thus, in the only possible interpretation, the person seen is John rather than anybody else in (21). The same is true of coordinate structures as well. Given proper contexts, the person whom Jeanne hits can be Mike or Jeanne's daughter in (17).

Wherever the second clause contains a verb rather than a proform, the structure is open to more interpretations in principle. But this does not mean that every sentence of the coordinate construction has three or more interpretations, particularly when an isolated sentence is cited with no context provided. Whether the strict reading or the sloppy reading or another reading is actually available is lexically and pragmatically determined. It is difficult to get a third reading in (1), though not impossible, given appropriate contexts. In other cases it is more difficult to get a strict reading or a sloppy reading but easier to get another reading. Compare the following sentences:

(22) Wang xiansheng ti-le tade toufa he huizi, Li
Wang mister shaved his hair and beard Li
xiansheng ye ti-le.
mister also shaved
‘Mr. Wang shaved his hair and beard and Mr. Li also shaved.’

(23) Wang xiansheng ti-le tade toufa he huizi, Li xiaojie
Wang mister shaved his hair and beard Li miss
ye ti-le.
also shaved
‘Mr. Wang shaved his hair and beard and Miss Li also shaved.’

If (22) is uttered in isolation, it is most likely to be interpreted as describing a situation in which Mr. Wang and Mr. Li each shaved their hair and beard. Sentence (23) is structurally identical to (22) but referentially different. If Mr. Wang decided to become a monk and Miss Li a nun, (23) could be semantically true and grammatically correct on the understanding that the latter shaved her hair but not her hair plus beard.

In contrast to (23), the following sentence is not acceptable (indi-

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5 Some speakers prefer to omit tade ‘his’. In Chinese the possessive pronoun is unnecessary when it is coreferential with the subject. Those speakers also consider the possessive in (1) unnecessary when the clause means that John saw his own mother.
cated by #) because the pragmatically appropriate interpretation is syntactically excluded by constraints on the interpretation of the VPEC:

(24) #Wang xiansheng ti-le tade toufa he huzi, Li xiaojie Wang mister shaved his hair and beard Li miss ye shi.
also be
‘Mr. Wang shaved his hair and beard and Miss Li did, too.’

Unlike their English counterparts, the majority of Chinese verbs that can take two arguments thematically need not be followed by an overt object. According to the statistics reported by Hu and Fan (1995), of the 12,404 verb entries contained in *Xiandai Hanyu Cidian* (The Dictionary of Modern Chinese) compiled by the Chinese Academy of Social Sciences, only 3% are required to take overt objects. Let us consider *fanrong* ‘boom’ and *wennuan* ‘warm’, cited as examples of the second subcategory by Hu and Fang, and expand their examples to coordinate structures as follows:

(25) Jiu zhengce fanrong-le jinrong shichang, *xin zhengce
old policy boom new policy
ye fanrong-le.
also boomed
‘The old policy caused the money market to boom and the new policy also did.’

(26) Tade hua wennuan-le womende xin, *nide hua
his words warmed our hearts your words
ye wennuan-le.
also warmed
‘His words warmed our hearts and your words also did.’

These sentences are ungrammatical. If verb ellipsis in Chinese results from verb raising, the VPEC should be insensitive to subcategories.6 The same verbs can occur in the genuine VPEC.

(27) Jiu zhengce fanrong-le jinrong shichang, xin zhengce
old policy boom new policy
ye shi.
also be
‘The old policy caused the money market to boom and the new policy also did.’

(28) Tade hua wennuan-le womende xin, nide hua ye
his words warmed our hearts your words also
shi.
be
‘His words warmed our hearts and your words also did.’

6 I thank an anonymous reviewer who called my attention to this point.
The Chinese sentences in (27) and (28) are syntactically comparable to the English sentence in (2), which also contains a verb that requires an overt object. Repetition of such a verb in the second conjunct with no overt object is ungrammatical in Chinese as well as in English. It is misleading to compare the English sentence in (2) with the Chinese one in (1). They are structurally different. Although kanjian is synonymous with see, it can take an empty object.

To summarize: (a) Chinese has the VPEC just as English does. In both languages only the strict reading and the sloppy reading are possible in the VPEC. (b) Chinese has the NOC, in which readings other than the strict and sloppy ones are in principle available, but not always pragmatically possible. (c) There is no ‘VP-ellipsis in disguise’ in Chinese.

References


