Depictive Secondary Predicates and Small Clause Approaches to Argument Structure

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Abstract

Some syntactic approaches to argument structure posit *small clause* constituents to represent what they take to be the semantics of the constructions being analyzed. For example, this approach would analyze a resultative construction like *Martha hammered the metal flat* as containing a small clause [the metal flat]. In the small clause analysis, the NP *the metal* is only an argument of the result state denoted by the small clause, and is not part of the causal hammering event. Depictive secondary predicates show that this analysis is incorrect, and the NP must be an argument of the verbal causing event. I show this for several constructions that have been analyzed as small clauses: resultatives, caused motion constructions, particle verb construtions, and double object constructions, among others. I also revisit arguments that have been presented in favor of small clause analyses, for instance adverbial modification, and show that they do not actually favor small clause analyses.

1 Introduction

Some syntactic approaches to argument structure posit *small clause* constituents to represent what they take to be the semantics of the constructions being analyzed. For example, resultative constructions (1a), caused motion constructions (1b), particle verb constructions (1c), and double object constructions (1d) have all been analyzed as including a small clause component:

(1) a. Martha hammered the metal flat. *resultative constructions*
b. Jerome waltzed Matilda across the room. *caused motion constructions*
c. They sponged the water up. *particle verb constructions*
d. Melinda wrapped her friend a present. *double object constructions*

In Kayne (1984a), for example, a resultative construction like (1a) includes a small clause [the metal flat]; in Folli and Harley (2006), the caused motion example in (1b) includes the small clause [Matilda across the room]; in Kayne (1984a), the particle in (1c) forms a small clause with the direct object, [the water up]. The small clause analysis of double object constructions in (1d) is more abstract, but in the HaveP analysis of Harley (1997, 2002, 2008) they include a small clause [her friend HAVE a present].

Small clause analyses are justified largely by semantics. For instance, the resultative in (1a) is claimed to mean that Martha did some hammering, and as a result the metal is flat. In the small clause analysis, this is encoded directly in the syntax by having *Martha* be the subject of the verb *hammer*, which denotes a hammering event; this hammering event causes an eventuality of the metal being flat. This latter eventuality is encoded directly in the syntax by the small clause. Note that *the metal* on such an analysis is not actually an argument of the hammering event; it is only part of the resulting being-flat eventuality.

By examining depictive secondary predicates, I will show here that this is the wrong representation and the wrong semantics. Depictive secondary predicates require an analysis where the object in all of these constructions

is the object of the main verb and a participant in the main verbal (causing) event.[1] Small clause analyses cannot capture the behavior of the NP arguments with depictive secondary predicates in any of these constructions.

I begin by discussing the properties of depictive secondary predicates and showing how they are relevant (section 2). Section 3 then goes through each of the above constructions and shows that depictive secondary predicates are incompatible with the premises of the small clause analysis of those constructions. Finally, section 4 discusses some phenomena that have been used to motivate small clause analyses (e.g., adverbial modification), and shows that they do not actually motivate such analyses. The conclusion is that small clause analyses of these phenomena are on the wrong track.

2 Depictive Secondary Predicates

Secondary predicates (underlined in the examples below) are commonly divided into two categories, *depictives* and *resultatives*:

(2) a. She flattened the metal wet. *depictive*
b. She pounded the metal flat. *resultative*

Depictives characterize an NP throughout the duration of the verbal event (the main predicate); resultatives characterize a result state of an NP brought about by the verbal event. Thus, in (2b), the metal becomes flat as a result of the pounding. In (2a), in contrast, the metal is wet throughout the event of flattening.

There are numerous syntactic differences between depictives and resultatives. For instance, resultatives may only be predicated of underlying direct objects (see, e.g., Levin and Rappaport Hovav 1995, Rothstein 2004, Williams 2011). Depictives, in contrast, can be predicated both of direct objects and subjects:

(3) a. She pounded the metal dizzy. (*'She pounded the metal, and as a result she became dizzy.')
b. She often makes pots naked. ('She is often naked while making pots.')

Another difference is that resultative secondary predicates can add NPs that are not arguments of the main predicate, as in (4a), but depictives cannot (4b):

(4) a. Gerald drank the pub dry.
b. John drove Mary drunk. (*'John drove, and throughout this event Mary was drunk'; Rothstein 2004, 70, (41))

As Williams (1980) and Rothstein (2004) note, the NP has to be a participant in the main event with a depictive, independently of the appearance of the depictive. This is what will be important here. What a depictive secondary predicate does is modify an NP and an event. The depictive predicates a property of the NP that holds throughout the event (for analyses, see Geuder 2000, Rothstein 2004, Pylkkänen 2008). Importantly, if a depictive can characterize an NP during a certain event, that NP must be a participant in that event.

With this in mind, let us turn to small clause analyses of various phenomena.

3 Phenomena Analyzed as Small Clauses

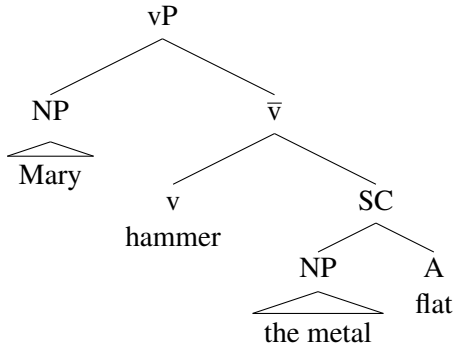
Numerous phenomena besides the four listed in the introduction have been analyzed as including small clauses. In this section I will stick to the examples in the introduction: resultatives, caused motion, particle verb constructions, and double object constructions. Depictive secondary predicates can in principle be used as described here to evaluate a small clause analysis of any phenomenon. (I remark on a few in passing in sections 3.1 and 4.)

[1] I use the terms "causing event" and "result state" or "result eventuality" purely for convenience, and in keeping with the language of the small clause analyses being criticized. It is not important here whether "cause" and "result" are the right notions for describing these phenomena.

3.1 Resultatives

Small clause analyses of resultatives include Kayne (1984a), Hoekstra (1988), Sybesma (1999), Kratzer (2005), Harley (2005, 2008). To pick one of the more recent ones, Harley (2008, (30)) analyzes a resultative construction in the following way:[2]

(5) Mary hammered the metal flat.



Here, there is a causing portion with the lexical verb spelling out the manner of causation, and a result portion represented by a small clause in the syntax ("SC"). Informally, the intended semantics has a causing event with an agent *Mary* who is acting in a hammering manner, and this causing event causes a result state where the metal is flat.[3]

The object NP in this structure and semantics is not a participant in the causing verbal event, it is only a participant in the final state. It has no role in the hammering causal event. Given what we saw about depictive secondary predicates, then, we would expect that if one could modify the object NP with a depictive secondary predicate, that depictive would only be able to characterize the object NP during the result state. This is incorrect, however. Consider the following examples:

(6) a. It's best to hammer metal flat wet, but it's OK if it has dried by the time it's completely flat.

b. # It's best to hammer metal flat dry, but it's OK if it's wet during the hammering.

As can be seen from these examples, when a depictive modifies the direct object in a resultative construction, it characterizes the direct object during the causing event and *not* during the resultant state. This is inconsistent with the small clause analysis, where the direct object is not a participant in the verbal causing event. The facts are the exact opposite of what is expected on the small clause analysis, and are irreconcilable with the very premises of that analysis, as far as I can see.

Depictives show us that what we need is an analysis where the direct object is the object of the verb *hammer* and a participant in a hammering event (or a *hammering flat* event, depending on the right analysis of resultative constructions). See Williams (2011, 2015) for more reasons to reject small clause analyses of resultative constructions. Non-small-clause analyses of resultative constructions include McCawley (1971), Dowty (1972), Parsons (1990), Levin and Rappaport Hovav (1995), Li (1995), Rothstein (2004), Williams (2011), among others. There is also a hybrid approach, where the resultative adjective and NP form a small clause but the NP moves out of the small clause to become an argument of a verbal projection in addition (Ramchand 2008, 121–131). It appears that all of these analyses are compatible with the facts of depictive secondary predicates, unlike small clause analyses. Since the hybrid analysis has the NP move to become an argument in the verbal event, it should be able to capture the facts of depictives, assuming that something can block a depictive attaching to the small clause constituent.

[2] I have replaced the label "DP" with "NP" in all of the trees in this paper.

[3] In the works of Harley, v represents either CAUSE or BECOME (see section 3.2), while the lexical verb *hammer* is said to adjoin to v as a manner modifier. No formal semantics for this manner modification is proposed. Copley and Harley (2015, 131) explain briefly what manner modification would be in the force semantics that they propose. They also state that the verb root adjoins to a predicate headed by v_{BECOME} in an example like *Mary hammered the metal flat*. They do not give a structure for this sentence, but it appears they have in mind a structure like that in (5), where v_{BECOME} takes a small clause *the metal flat* as its complement.

It should also be noted that depictive secondary predicates behave the same whether the direct object is a selected argument of the verb (6) or not (7):

(7) a. That marathoner ran his shoes to pieces untied, although he finally tied them once they started falling apart.

b. Once that marathoner's shoes started falling apart he untied them, so #he ran his shoes to pieces untied.

Even if the object is not an argument of the verb, it must still be an argument of the causing event, and not solely of the result.

Before leaving resultative constructions, it should also be noted that depictives give the same result with lexical resultative predicates, which are also sometimes analyzed as including small clauses (e.g., Harley 2005, 2008; Copley and Harley 2015). In such cases, a single lexical verb seems to denote a causing event plus a resulting state. With such verbs, depictives consistently only modify the causing event and may not modify the resulting state:

(8) a. He flattened the metal wet, but by the time it was completely flat it had dried.

b. # It's best to flatten metal dry, but it's OK if it's wet during the flattening process.

(9) a. He always shears the sheep asleep, although they usually wake up before they are completely shorn.

b. # You should shear the sheep awake, but it's OK if they're asleep during the cutting.

(10) a. People usually cook lobsters alive. (by the time they achieve cooked state, they are dead)

b. # You should cook lobsters dead, but of course they have to be alive when you put them in the pot.

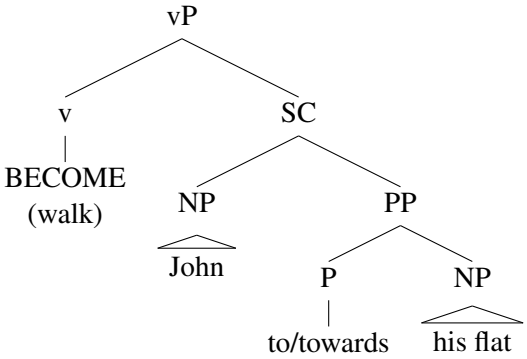
Small clause analyses of such predicates, where the direct object is only an argument of the small clause, are therefore also ruled out for these predicates.

3.2 Caused Motion

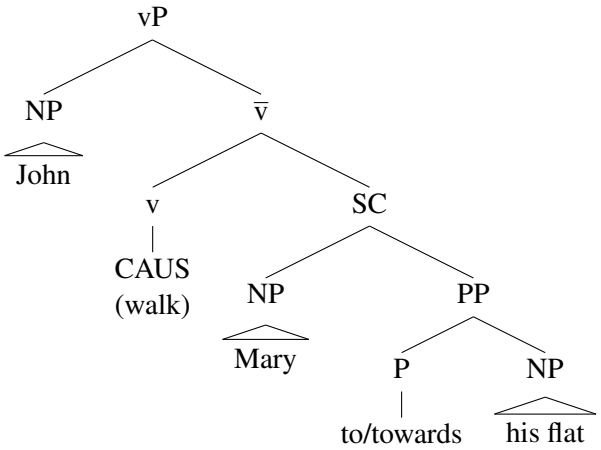
Hoekstra and Mulder (1990) and Folli and Harley (2006) analyze caused motion predicates as involving a small clause. I illustrate with the analysis in Folli and Harley (2006):

(11) (Folli and Harley 2006, 137, (27a–b))

a. John walked to/towards his flat.



b. John walked Mary to/towards his flat.



As can be seen, in this analysis both intransitive and transitive motion predicates have a small clause. The NP that undergoes motion is the subject of the small clause. In the intransitive case, there is a higher predicate BECOME; the NP moves to become the subject of the clause. In the transitive case, the surface subject is the agent of a CAUS head. This head denotes a causing event, which causes the small clause as a separate eventuality.

Folli and Harley (2006) do not spell out a semantics for caused motion constructions (nor do Hoekstra and Mulder 1990), but they do point to examples like the following as instantiating the same small clause:

(12) (Folli and Harley 2006, 140, (33a), (34a))
  a. The halfback is into the end zone!
  b. John has been to France.

It therefore appears that the small clause simply denotes a stative locational predicate, and once again, the NP that is the subject of that small clause is not a participant in the event that leads to the small clause state. That is, the NP that undergoes motion is not a participant in the BECOME or CAUS event; that event instead takes as its argument the eventuality denoted by the entire small clause (NP plus PP).

Once again, depictive secondary predicates show us that this is not correct. When a depictive modifies the NP undergoing motion, it characterizes it throughout the verbal event, and not just in the final state that is denoted by the small clause:

(13) a. After the sudden downpour, Albert had to walk to his flat completely wet. The sun came out on the way, though, so by the time he got to his front door, he was dry.
  b. Albert installed a giant air dryer right outside his flat, so although he was completely wet for the journey, #he walked to his flat dry.

(14) a. Albert walked Gertrude to his flat barely conscious, but she regained consciousness just as they arrived.
  b. Gertrude was completely lucid during the journey, but because of a sudden relapse right on his doorstep, #Albert walked her to his flat unconscious.

In fact it is not possible for a depictive to characterize the NP in the final result state, as the (b) examples show. Once again, the facts are the exact opposite of what the small clause analysis would predict.

I have been able to find very few non-small-clause analyses of caused motion constructions. Brousseau and Ritter (1992) propose a lexical semantics for caused motion constructions, but do not discuss the syntax. A very sketchy account is given in Levin and Rappaport Hovav (1995, 188). Ramchand (2008, 116, (21)) has a non-small-clause analysis of some cases (like *Alex danced the puppet over the bridge*), but a hybrid approach for other cases (*Michael ran Karena to the coconut tree*; 118, (25)). In the hybrid analysis, the NP starts as the subject of a small clause ("res(ult)P"), but then moves to become the argument of a verbal projection ("proc(ess)P"). It appears that all of these analyses are compatible with the facts of depictive secondary predicates, unlike (pure) small clause analyses.

3.3 Particle Verbs

Kayne (1984a) proposed analyzing particle constructions in the same way as resultatives, above. Consider an example like the following:

(15) They sponged the water up. (Kayne 1984a, 122, (108))

According to Kayne, these have a verb *sponge* which embeds a small clause [the water up]. Other small clause analyses of particle constructions include Hoekstra (1988), Svenonius (1992, 1994), den Dikken (1995), Harley and Noyer (1998), Ramchand (2008).[4] Aarts (1989) analyzes some verb-particle constructions as small clauses, but not others. Other than Ramchand (2008), none of these publications spell out a semantics, but it appears that the intended meaning includes a causal sponging event, with a resulting state of the water being up. Since the NP object is not a syntactic argument of the verb, it appears that it is also not intended to be a semantic participant in the verbal event, but only in the resulting state.

Once again, depictive secondary predicates show us that this is wrong. When a depictive modifies the direct object, it characterizes it throughout the causing event, and may not characterize it during the resulting state:

(16) a. They had to sponge the water up dirty, but because of the peculiar absorptive properties of the sponges they were using, the dirt got left behind and the collected water was completely pure.

b. The water was completely pure, but because the sponges they were using were dirty, #they ended up sponging the water up dirty.

Again, the facts are the opposite of what is predicted by the small clause account.

Non-small-clause analyses of particle verb constructions include, among others, Johnson (1991), Neeleman and Weerman (1993, 1998), Radford (1997), Zeller (2001), Toivonen (2003), Blom (2005), Basilico (2008). Larsen (2014) proposes a hybrid approach, where the particle and NP form a small clause but the NP moves out of the small clause to become an argument of a verbal projection. It appears that all of these, including the hybrid approach, are compatible with the facts of depictive secondary predicates.

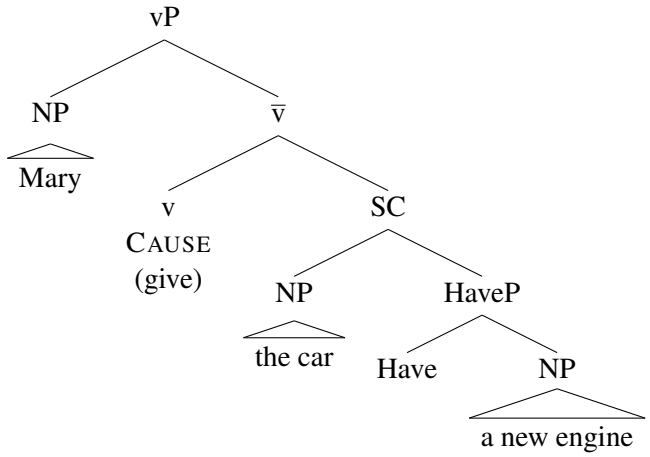
3.4 Double Object Constructions

Kayne (1984b) proposed that double object constructions involve a small clause, and this analysis was adopted with some variations by Johnson (1991) and Hornstein (1995), among others. A more developed small clause analysis, the HaveP analysis, has become prominent more recently, and it is this analysis that I will concentrate on. The HaveP analysis was proposed by Harley (1997) and is developed in Harley (2002, 2008), Beck and Johnson (2004), and Harley and Jung (2015), among others. A variant of it appears in Ramchand (2008, 103).

In the HaveP analysis, the verb *give* is analyzed as a light verb vCAUSE taking a small clause headed by Have as its complement. *Give* is the pronunciation of vCAUSE combined with Have. The structure proposed is the following:

(17) Mary gave the car a new engine. (Harley 2008, (53))

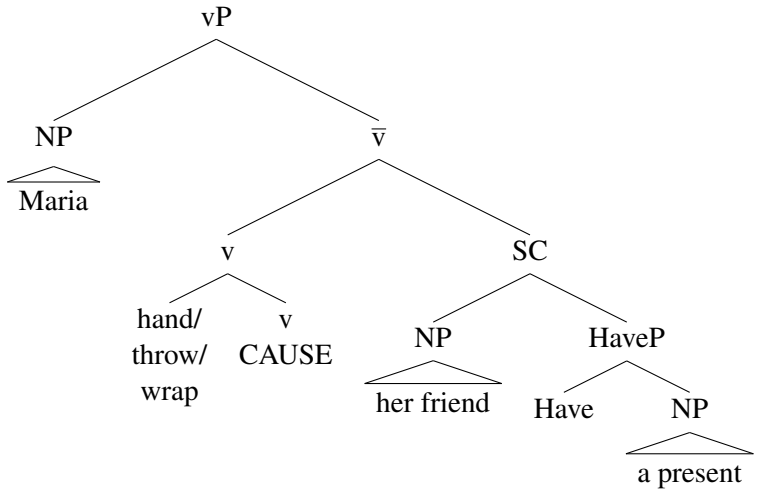
[4] Although Ramchand (2008) has a hybrid analysis of resultatives and caused motion predicates, above, where the NP moves from the result small clause to become an argument of a higher verbal projection, in her analysis of particle verbs the NP never leaves the ResultP (132, (49)).



The proposed semantics has a causing event (vCAUSE) with a resulting having state (the small clause headed by Have). The result state is supposed to be equivalent in most respects to the verb of possession, *have* (to be precise, the verb *have* is Have + *be*, so *give* and *have* share a component, HaveP).

If the verb is some lexical verb other than *give*, that verb adjoins to vCAUSE as a manner modifier. While Harley does not explicitly give the structure for this manner adjunction, we can suppose it would look something like this:

(18) Maria handed/threw/wrapped her friend a present.



No formal semantics for manner modification is spelled out in any of the publications listed above, but a reasonable assumption is that the semantics is supposed to be something like the following paraphrase: 'Mary, acting in a handing/throwing/wrapping manner, caused a result state where her friend has a present'.[5]

The thing to note about this analysis is that there is no relation between the verb stem (acting as a manner modifier) or the causing event and either of the two objects. Neither of the objects is a participant in the causing event which the verb stem modifies; they are only participants in the result state.

Once again, depictive secondary predicates show that this is incorrect. When a depictive modifies a direct object in a double object construction, it clearly characterizes it throughout the causing event, and not during the result state. Consider the following examples:

(19) a. I threw him the ball wet, but when he got it it was dry.
b. As it left my hand it was wet, #but I threw him the ball dry.

[5]Copley and Harley (2015) give a proposal for the semantics of manner modification within a very different framework, but do not discuss double object verbs.

As these examples show, the property *wet* only has to hold of the ball during the causing event. In (19a), the ball can be wet during this event, but dry by the time the result having state is achieved. In contrast, in (19b), trying to have *wet* modify *the ball* only during the result having state, and not during the causing event, is not possible. Again, this is the exact opposite of what would be expected on the small clause analysis.

Turning to the indirect object, there is a peculiar restriction to the effect that depictive secondary predicates may only modify subjects and direct objects, and may not modify indirect objects or objects of prepositions (Williams 1980). In (20), for example, the depictive can only modify the subject, and cannot modify the indirect object:

(20) Sasha fed Melinda the meat drunk. (Sasha but not Melinda is drunk)

Harley and Jung (2015) claim that this restriction follows in the HaveP analysis, if depictive secondary predicates can only modify events and may not modify states. Then they cannot normally modify the indirect object of a double object construction because that object is only a participant in a state, namely the resulting having state. An immediate problem for this analysis is that the direct object can freely have a depictive predicated of it (as in 19), even though in the HaveP analysis it too is only a participant in the resulting state.

Furthermore, Koizumi (1994) points out that, although indirect objects cannot be modified by depictive secondary predicates in the active, they can when they become the subject of a passive:

(21) (Pylkkänen 2008, 36, (57a–b))

a. He told me the news drunk. (I cannot be the one who is drunk)

b. I was told the news drunk. (I am the one who is drunk)

This fact is significant for two reasons. First, it indicates that there is no semantic problem with modifying an indirect object with a depictive, since actives and passives are truth-conditionally identical. In particular, the passive should not change the event structure of the clause, and Harley and Jung's ban against depictives modifying states should still rule out a depictive modifying the indirect object, incorrectly.

Second, we can now use passive double object constructions to see how depictives act when they modify an indirect object. Passives show us that the indirect object of a double object construction must be a participant in the causing event, just like the direct object:

(22) a. She was thrown the ball blindfolded, but she managed to get the blindfold off before it arrived and caught it.

b. She saw the ball coming and caught it, but simultaneous with her catching it an opponent threw a scarf over her eyes, so #she was thrown the ball blindfolded.

Indirect objects must be participants in the causing event, just like direct objects. Since the HaveP analysis treats both of them only as participants in a having result state, it has the wrong semantics.

There is another exception to the ban on depictives modifying indirect objects. *Light verb* uses of *give* permit indirect object modification (Maling 2001, Pylkkänen 2008):

(23) (Maling 2001, (14c–d))

a. The nurse gave the patient his medication still-groggy/half-asleep.

b. Victorian doctors preferred to give their female patients a physical exam fully-dressed.

In light verb uses of *give*, *give* seems to have little semantic content; that content is instead provided by the direct object. Thus, *give medication* is interpreted as 'medicate' and *give an exam* is interpreted as 'examine'. It is crucially on these interpretations that the depictive can characterize the indirect object. *Give medication* could also be interpreted as transferring possession of the medication rather than medicating, but (23a) is not possible with this interpretation (Pylkkänen 2008). This would be a non-light use of *give* as a verb of transfer of possession.

Harley and Jung (2015) account for this exception by saying that in light verb uses of *give*, the Have component is eventive rather than stative. This enables the depictive to modify the indirect object, since it is now a participant

in an event rather than a state. On the HaveP analysis, however, it is still only a participant in the resulting event and is not a participant in the causing event. Again, depictives show us that this is incorrect:[6]

(24) a. The nurse gave the patient his medication asleep, but he woke up by the time it was all injected.
b. I always give the tables a scrubbing wet, but they're usually dry by the time they're fully scrubbed.
c. # The tables start out dry, but I always give them a scrubbing wet.

As with all the other cases that have been analyzed as small clauses, the facts of depictive secondary predicates are incompatible with the small clause analysis of double object constructions. As far as I can see, the HaveP analysis cannot be reconciled with the facts of depictive secondary predicates. The HaveP analysis simply has the wrong semantics. (See also Takano 1998 and Bruening 2010a for other arguments against treating double object verbs as including a small clause.)

Non-small-clause analyses of double object constructions include, among others, Larson (1988), Aoun and Li (1993), Pesetsky (1995), Takano (1998), and the Applicative analysis of Marantz (1993), Bruening (2001, 2010a, 2010b, 2014). It appears that all of these are compatible with the facts of depictive secondary predicates, unlike small clause analyses.

3.5 Actual Small Clauses

For comparison, depictive secondary predicates are perfectly able to modify an NP in an actual small clause. By "actual small clause" I mean a clause that is clearly a constituent and is clearly a self-contained proposition but does not include inflectional material like tense (see, e.g., Stowell 1983). Consider the following examples:

(25) a. I want [the soldiers on the parade ground fully dressed]!
b. [Maxwell in a dress drunk] is a sight to see!
c. With [Hope in the hospital hurt], we're likely to lose the match.
d. I consider [him beneath contempt drunk].

This indicates that there is not some property of small clauses that prevents depictive secondary predication within them, even ones that appear to be stative (contra Harley and Jung 2015).

3.6 Summary

Depictive secondary predicates are incompatible with the premises of small clause analyses of the phenomena discussed in this section. In small clause analyses, an NP acts solely as the subject of a small clause and is not an argument in a verbal (typically causal) event. Depictive secondary predicates indicate that this is not correct, as the NP that is analyzed as the subject of a small clause must in fact be an argument of the verbal (causal) event.

[6]Moreover, if the only requirement on depictives is that they need an event to modify rather than a state, we would expect that indirect object modification in the following examples of light verb *give* would be possible, but it is not:

(i) a. He gave us a shout drunk. (only he and not we can be drunk)
b. He gave us a smile still groggy. (only he and not we can be still groggy)

Give a shout and *give a smile* are eventive, but they do not permit indirect object modification by a depictive. The difference between the *give medication* type of light verb and the *give a shout* type is that the indirect object is interpreted as the logical object of the noun *medication*, but the indirect object is not interpreted as the logical object of *shout*. In *give medication*, *give an exam*, and *give a scrubbing*, the indirect object corresponds to the direct object of the corresponding simple verb. In contrast, with *give a shout* and *give a smile*, the indirect object does not correspond to the direct object of the corresponding simple verb construction. This contrast is unexplained on the Harley and Jung (2015) proposal.

4 Revisiting Arguments for Small Clause Analyses

As stated above, part of the motivation for small clauses analyses was an idea about what the semantics of the relevant construction is. Depictives show us that this semantics is incorrect. Beck and Johnson (2004), Harley (2008), and Copley and Harley (2015) also cite some facts of adverbial modification to justify small clause analyses. For example, the modifier *again* can modify just the having part of a double object construction (Beck and Johnson 2004). In the following example, *again* is felicitous even though no one had previously kicked Maria the ball:

(26) Maria started the game with the ball, but kicked it to someone else. For ten minutes, others had the ball. Finally, someone kicked her the ball again.

What *again* says is instead that the state [Maria HAVE the ball] held before. This is often referred to as a *restitutive* reading of *again* (as opposed to the *repetitive* reading, where the whole event happened before). As Beck and Johnson (2004) show, it is easy to get the restitutive reading in the HaveP analysis, which has a constituent [Maria HAVE the ball] in the syntax. *Again* can adjoin to this constituent and modify it. (On the repetitive reading, it would modify a higher verbal projection.)

Another modifier that can modify just the having eventuality in a double object construction is the temporal *for X time* (Harley 2008, Copley and Harley 2015):

(27) I gave Sandy my smartphone for a few minutes.

The sentence in (27) is most plausibly interpreted as Sandy having the smartphone for a few minutes, not as me repeatedly giving her the smartphone for a few minutes. In Harley (2008) and Copley and Harley (2015), this reading is derived in the same way as the restitutive reading of *again*: the *for X time* adverbial adjoins to the small clause.

While the behavior of these modifiers initially seems to support positing a small clause constituent in the syntax, a closer look reveals them to be problematic. If the 'have' reading of *for X time* adverbials and restitutive readings of *again* are derived in the same way, they should always pattern alike. This is not true, however. Stranding *again* under VP ellipsis gets rid of the restitutive reading (Johnson 2004):

(28) Maria started with the ball, but then no one kicked it to her for a long time. Finally, #Jorge did again.

Again can only be interpreted repetitively when it is stranded by VP ellipsis, which in this example is incompatible with the context. According to Johnson (2004), this follows because, to be stranded, *again* has to be adjoined much higher than HaveP. If *again* is adjoined to HaveP, it will necessarily be included in VP ellipsis.

In contrast, the 'have' reading is not lost when a *for X time* adverbial is stranded by VP ellipsis:[7]

(29) a. Megan loaned him a car for a week, and I did for a month.

b. A: Give me your smartphone for the day, will you? B: I can't for the whole day.

If the 'have' reading of *for X time* resulted from adjoining *for X time* to HaveP, *for X time* should not be strandable in VP ellipsis.

[7] *Again* and *for X time* also behave differently in this respect with simple transitive verbs like *open* and *close*, which Harley (2008) and Copley and Harley (2015) also analyze as involving small clauses:

(i) a. When she came in the window was closed, so Sandy opened it. After a few minutes she got cold, so she closed it again. (restitutive)

b. The wind blew the door open and no one closed it. Finally, *Maribel did again. (*restitutive; Johnson 2004, (30))

(ii) a. A: Open the window for a few minutes to air the room out. B: I only will for one minute, or it will get too cold.

b. To keep the sun from making their rooms too hot, Sandy closes the curtains for a few hours every afternoon, and Sam does for the whole afternoon and evening.

This is also inconsistent with the assumptions of the small clause account of these predicates.

Again and *for X time* also diverge in that some verbs allow a restitutive reading with *again*, but do not allow the corresponding reading with *for X time*:[8]

(30) a. I just got this brand new, sparkling clean shirt. I spilled tomato sauce on it, but I managed to clean it again. (restitutive)

b. I cleaned the shirt for a week. (only repetitive cleaning events)

(31) a. The diver reached the surface again. (restitutive; Jäger and Blutner 2003)

b. The diver reached the surface for 10 minutes. (only repetitive surfacing events)

These differences indicate that restitutive readings of *again* and the reading at issue with *for X time* adverbials are not derived in the same way. This means that they do not support small clause analyses, since their behavior is not as predicted by those analyses.[9]

Some other syntactic arguments for positing small clauses for some of these constructions have also been presented. For instance, Kayne (1984b) justifies a small clause analysis of double object constructions on the basis of nominalization and subextraction phenomena. The nominalization facts have been analyzed within a non-small-clause analysis in Pesetsky (1995) and Bruening (2010a), so they do not argue for a small clause analysis. As for subextraction, the argument is that the indirect object of a double object construction patterns with the subject of a small clause (or indeed, any subject) in being opaque to extraction (see Postal 1974, 195). However, it is actually not true that the indirect object of a double object construction is always opaque to extraction. In some cases, subextraction seems to be allowed for many speakers:

(32) a. This is the guy that I could forgive friends of anything.

b. This is the guy that I would deny friends of everything.

c. These two dalmatians, you're going to deny the puppies of a good home?!

d. The restaurants that I tip the waiters of more than twenty percent aren't very expensive.

Some of the other constructions discussed above also permit subextraction, which is surprising if they are supposed to involve small clauses:

(33) a. Who are they burning books about to cinders? *resultative*

b. This dangerous looking man is the one he is currently waltzing the wife of across the room. *caused motion*

It is therefore not possible to maintain both that subextraction is a reliable diagnostic of small clauses, and that all of these constructions involve small clauses. Furthermore, it is not clear that constraints on extraction are actually syntactic in nature; see Hofmeister and Sag (2010), Chaves (2012, 2013). This particular argument is therefore not very telling.

An argument *against* small clause analyses of the phenomena discussed here is anaphora. As Pesetsky (1995, 159–160) and Bruening (2010a, 524) note, true small clauses constitute opaque domains for anaphora:

(34) a. * Maxwell$_1$ considers her proud of himself$_1$.

b. * Maxwell$_1$ said that, with Sally angry at himself$_1$, he won't be able to retrieve his kayak from her house.

c. * I$_1$ want him away from myself$_1$!

d. * Maxwell$_1$ said that, with Sally beside himself$_1$, he could do anything.

e. * That giant$_1$ believes a dwarf beside himself$_1$ to be an amusing sight.

[8]Chierchia and McConnell-Ginet (1990, 359) state that the restitutive reading of *again* is not available with the verb *clean*, but I and numerous speakers I have asked find it acceptable. Jäger and Blutner (2003) also cite an example of *clean* with the restitutive reading.

[9]Numerous publications have argued that it is not necessary for *again* to modify a syntactic constituent in order to yield a restitutive reading; see, among others, Dowty (1979), Egg (1999), Jäger and Blutner (2003), Williams (2015).

All of these examples are grammatical with a pronoun rather than a reflexive. This is expected on most accounts of anaphora, where the presence of a subject delimits the domain within which a reflexive must find an antecedent (Chomsky 1973, 1981, but also approaches based on co-argumenthood, like Reinhart and Reuland 1993). Small clauses have subjects. Note that this is true with both AP small clauses and PP small clauses.

In none of the cases discussed here except adjectival resultative constructions does the putative small clause constitute an opaque domain for anaphora:

(35) *Resultative Constructions*
  a. The gingerbread man$_1$ pounded the dough flatter than him$_1$/*himself$_1$.
  b. The gingerbread man$_1$ pounded the dough away from himself$_1$/*him$_1$.
  c. The gingerbread man$_1$ pounded the dough to a semblance of himself$_1$/*him$_1$.

(36) *Caused Motion Constructions*
  a. John$_1$ pushed Mary away from himself$_1$. (Harley and Jung 2015, 718)
  b. Thompson and Thomson$_1$ waltzed Bianca to each other$_1$.

(37) *Particle Verb Constructions*
  a. John$_1$ showed the medal off to himself$_1$. (Harley and Jung 2015, 718)
  b. Spongebob Squarepants$_1$ sponged the water up into himself$_1$.

(38) *Double Object Constructions*
  a. Maxwell$_1$ showed Sally himself$_1$.
  b. Maxwell$_1$ offered Sally himself$_1$.

The fact that adjectival resultatives constitute opaque domains for anaphora (35a) seems to be due to them containing an AP, and not to the resultative construction. If the resultative has a PP rather than an AP, it does not constitute an opaque domain for anaphora (35b–35c). APs apparently always constitute opaque domains for anaphora (e.g., **James$_1$ wonders how proud of himself$_1$ Melinda is*), possibly because they always include a null subject (perhaps PRO, or an implicit thematic subject; see Barss 1986, Huang 1993, Heycock 1995, Takano 1995 for extensive discussion). In every other case, the results of the anaphora test converge with depictive secondary predicates on the conclusion that small clauses are not involved in these constructions. Contra Harley and Jung (2015, 718), then, the opaque domains test *is* a valid diagnostic of small clauses.

To further verify this correlation, consider prepositional dative constructions and *put*-type verbs, both of which have been suggested to involve small clauses (e.g., Hoekstra and Mulder 1990, den Dikken 1995). Pesetsky (1995) and Bruening (2010a) give numerous arguments against prepositional datives being analyzed as small clauses, among them the fact that they do not constitute opaque domains for anaphora (39a). This is also true of *put*-type verbs (39b):

(39) a. John$_1$ gave a gift to himself$_1$. (Bruening 2010a, 524, (11b))
  b. The tiger$_1$ put butter on itself$_1$.

Our depictive secondary predicate test gives the same result:

(40) a. I threw the ball to Melinda wet, but by the time she caught it it was dry.
  b. As it left my hand it was wet, but #I threw the ball to Melinda dry.

(41) a. The workers always put the pillars in place wet, but they were usually dry by the time they were in their final position.
  b. During the lifting and placing they were wet, but #the workers always put the pillars in place dry.

Other than adjectival resultatives, then, we see a systematic correlation between domains of anaphora and our depictive secondary predicate test. The facts of depictives render a small clause analysis untenable, which then establishes anaphora as a reliable diagnostic of small clause status. As for adjectival resultatives, there is an

independent factor which renders them opaque to anaphora. We can therefore state the implication as one-way: if an *NP XP* sequence is transparent to anaphora, it cannot constitute a small clause. If it is opaque, it may or may not be a small clause.

To sum up this section, arguments that have been presented in the literature for small clause analyses are actually problematic for those analyses (adverbial modification), or are not telling (subextraction). Anaphora converges with depictive secondary predicates to argue against small clauses analyses.

5 Conclusion

This paper has shown that depictive secondary predicates are incompatible with the premises of small clause analyses of the phenomena discussed here. Facts that have been used to motivate small clause analyses, like subextraction and adverbial modification, actually do not support those analyses. In contrast, constituting an opaque domain for anaphora seems to be a fairly reliable diagnostic of small clauses. This diagnostic converges with the facts from depictive secondary predicates to rule out small clause analyses of resultative constructions, caused motion constructions, particle verb constructions, and double object constructions, as well as prepositional dative constructions and *put*-type verbs. At various points I have also pointed out that the facts argue against a small clause analysis of verbs like *open* and *close*, too. These facts all indicate that small clause analyses of these phenomena are on the wrong track and should be abandoned.

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