

Object Movement Symmetries in British English Dialects: Experimental evidence for a case-based approach

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Abstract: This article reports on a judgment experiment intended to test a prediction of Anagnostopoulou's (2003) seminal proposal concerning locality of A-movement in languages with theme-goal orders in active and passive contexts. Results from an experiment with native speakers of UK English show a significant cross-speaker correlation between scores for theme-goal orders in active contexts and theme passives. The results nevertheless indicate a richer inventory of grammars than the two-dialect distribution entailed by a single parametric difference assumed in locality approaches. We propose that these data are best expressed on a modified version of GB case-based approaches to passive symmetry that models the availability of theme-goal orders in both passive and active contexts in terms of the merged position of the probes responsible for agreement on the internal arguments.

Keywords: passive, locality, English dialects, applicatives, experimental syntax,

1. Introduction

Comparative syntactic work on argument structure over of the last two decades has shown that languages with double object constructions (DOCs) pattern in one of two main ways with respect to passive movement. One class of languages, called “asymmetric passive” languages, including Fula, Swahili, German, Chichewa and Danish, has the property that out of a double object construction, only goal arguments may passivize (Baker 1988, Bresnan & Moshi 1990, Woolford 1993). We illustrate this pattern with the Danish examples in (1). A second class, traditionally called “symmetric passive” languages, including Norwegian, Swedish, some British English dialects and Kinyarwanda, differs in allowing goal passivization as well as theme passivization, as exemplified in the Norwegian sentences in (2) (Baker 1988, McGinnis 1998, 2001, Woolford 1993).

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|---|---|
| <p>(1) Danish (Holmberg and Platzack, 1995)</p> <p>a. Jens blev givet bogen.
 Jens was given book-the
 ‘Jens was given the book.’</p> <p>b. *Bogen blev givet Jens.</p> | <p>(2) Norwegian</p> <p>a. Jens ble gitt boken.
 Jens was given book-the
 ‘Jens was given the book.’</p> <p>b. Boken ble gitt Jens.</p> |
|---|---|

Generative approaches to this cross linguistic difference have generally been of two kinds. One approach has explained this contrast in terms of variation in case assignment in passive contexts, typically assuming some process of “case absorption” (Baker 1988, Woolford 1993, Citko 2008). On this approach, derived subjects move to subject position to receive nominative/ergative case, because the object case that would otherwise be assigned to them is absorbed by passive morphology (Baker 1988, Jaeggli 1986, Roberts 1987). Languages and dialects, furthermore, vary in the way case absorption applies in double object constructions: in asymmetric passives only the case otherwise destined for the goal can be absorbed, with the consequence that only the goal will passivize in these languages; in symmetric passive languages, on the other hand, passive morphology can absorb case meant for either the theme or the goal, with the consequence that either may passivize.

Much recent generative literature has pursued an alternative account in terms of locality. On this approach, theme passivization in symmetric passive languages is fed by short movement of the theme to an outer specifier of the goal, whence it may passivize without hurdling the goal, as in (3). Where object movement to this escape hatch is unavailable for whatever reason, movement of the theme to TP is blocked by the intervening goal (Ura 1996, McGinnis 1998, Bobaljik 2002, Anagnostopoulou 2003, Doggett 2004, Jeong 2007).

(3) *The locality approach to theme passives*

[_{TP} THEME [_{TP} T...[_{XP} <THEME> [_{XP} GOAL [_{YP} <THEME>]]]]]

Crucially at issue for the locality approach is the availability of independent evidence for the short theme movement shown in (3). In recent literature, two kinds of evidence to this effect have been proposed. First, Anagnostopoulou (2003, cf. Bobaljik 2002) observes that, within Mainland Scandinavian varieties, there is a rough cross linguistic correlation in the availability of theme passivization and theme goal-orders in object shift (OS): theme passives and theme-goal OS are both available in Swedish and Norwegian, and both unavailable in

Danish, as illustrated in the Danish and Norwegian examples in (4) and (5).

(4) Danish (Anagnostopoulou 2005)

- a. Peter viste hende den jo
Peter showed her it indeed
'Peter indeed showed it to her.'
- b. *Peter viste den hende jo.

(5) Norwegian (Anagnostopoulou 2005)

- a. Jag gav honom den inte.
I gave him it not
'I didn't give it to him.'
- b. Jag gav den honom inte.

Anagnostopoulou (2003, 2005) takes the availability of theme-goal orders in Swedish/Norwegian OS as evidence that the objects can permute low in the structure as in (3), and that the movement responsible for this order feeds theme passivization. More recently, Haddican (2010) relates theme passivization in some British English dialects to theme-goal ditransitives in active contexts, as in (6), which are also available in some British English (BrE) dialects. Haddican (2010) develops an analysis of theme-goal orders in passive and active contexts, similar in spirit to Anagnostopoulou's proposal for mainland Scandinavian.

(6) She gave it me.

Locality approaches make a strong prediction about cross speaker variation in languages like Mainland Scandinavian and BrE, namely that acceptability of theme-goal orders in active and passive contexts will covary across speakers in these languages. Speakers of these varieties, in other words, should accept theme passives if and only if they also accept theme-goal orders in active contexts. The goal of this paper is to report on a magnitude estimation experiment with native speakers of BrE (n=137) designed to test this prediction. The BrE results indicate a significant correlation between theme-goal orders in active and passive contexts supporting the locality approach's position that theme passivization is related to the availability of short theme movement in these dialects. The data nevertheless indicate a richer inventory of grammars than the two dialect distribution entailed by a single parametric difference assumed in locality approaches. We propose that the patterns of cross speaker variation observed and restrictions on objects in these constructions are best expressed on a modified version of classic case based approaches to passive symmetry, which relates theme-goal orders to the merged position of the probes responsible for case on the objects.

Our discussion is organized as follows. Section two of this paper introduces variation in object orders in BrE. Section three reports on an experiment examining cross speaker variation in judgements of theme passives and theme-goal active sentences in BrE dialects. Section four develops a case based approach to this variation.

2. Object movement symmetry in British English dialects

Much of the literature on passive symmetry has discussed the fact that some British English dialects allow for theme passivization in DOC contexts as illustrated in (7) (Woolford 1993, Anagnostopoulou 2003, Doggett 2004, Citko 2008, Kupula to appear).

(7) British English dialects

- a. %The ball was given my sister. (Theme passive)
- b. My sister was given the ball. (Goal passive)

Less widely discussed is the fact that some speakers of dialects from Northwestern and Western England also accept theme-goal orders in double object constructions as in (6) (Hughes et al 2006, Orton et al 1978). Speakers of these dialects accept these sentences most readily with pronominal objects, although full DP objects are accepted marginally by some speakers (Hughes et al 2006, Hollmann and Siewierska 2007, Myler 2010) as in (8).

(8) %She sent the ball my brother.

Before examining the relationship between theme passivization and theme-goal active sentences such as in (6), we first consider the relation of these forms to other ditransitive sentence types in English. In particular, there are at least the following three possible approaches to such sentences. A first possibility is that such sentences are underlyingly applicative DOCs and that some movement operation perhaps as in (9) is responsible for the inverted order of the arguments.

(9) She gave it me <it>.

A second possibility is that such sentences are instead prepositional datives with a null or deleted preposition as in (10).

(10) She gave it TO me.

This analysis is lent support by the fact that many speakers of Northwestern and Western dialects also accept sentences with a null allative TO in other contexts such as (11) (Collins 2007, Myler 2010).

(11) I want to go __ Chessington.

Assuming that the *to* of prepositional dative constructions is the same *to* under verbs of motion as in (11), then a prepositional dative approach to theme-goal ditransitive constructions like (6), suggests a unified approach to these two constructions.

A third possibility is that theme-goal orders are neither prepositional datives nor DOCs but rather some third variant. One such alternative is Doggett's (2004:94-96) suggestion that the theme may be first merged above the goal, as in (12). (Doggett does not discuss what the first merged position of the theme is.)

(12) She gave [it [me]].

Haddican (2010) presents evidence suggesting that, for most speakers in these dialect areas, theme-goal ditransitives behave like true DOCs and unlike prepositional dative constructions on standard diagnostics. First, for most speakers, theme-goal ditransitives behave like DOCs and unlike prepositional datives in that they are poor with latinate verbs (*donate, contribute*), "manner of communication" verbs (*shout, mutter, whisper, scream*) and verbs of "continuous imparting of force" (*push, haul, lift, pull*) as illustrated in (13) (Bresnan and Nikitina 2003, Levin 1993). A few speakers, however, find no difference between (13a) and (13c), suggesting that for these speakers, a representation of theme-goal orders as prepositional datives may be available.

- (13)a. She {whispered/donated/hailed} it to me. (prepositional dative)
 b. She {*whispered/*donated/*hailed} me it. (DOC)
 c. She {%whispered/%donated/%hailed} it me. (theme-goal ditransitives)

Similarly, for most speakers, theme-goal constructions behave like DOCs and unlike prepositional datives in that they are fine with “prevention of possession” verbs (*refuse*, *deny*) as in (14) (Levin 1993). A smaller set of speakers finds little difference between (14a) and (14c), again suggesting a representation of these constructions as prepositional datives.

- (14)a. *She refused it to me. (prepositional dative)
 b. She refused me it. (DOC)
 c. %She refused it me. (theme-goal ditransitives)

A third kind of evidence in favor of a DOC analysis of theme-goal orders comes from nominalizations. Theme-goal ditransitives behave like true DOCs, and unlike prepositional datives in being poor in nominalisations (Kayne 1984):

- (15) the giving of it to me (prepositional dative)
 (16) *the giving of me it (DOC)
 (17) *the giving of it me (theme-goal ditransitive)

Fourth and finally, for most speakers in the relevant dialect areas, these theme-goal constructions behave like true DOCs and unlike prepositional datives in terms of person case constraint (PCC) effects. Across English dialects, DOCs differ from prepositional datives in that, in the former, combinations of two weak object pronouns are degraded if the theme is first or second person (Anagnostopoulou 2008, Bonet 1991: 185-6, Haspelmath 2004). As Haspelmath (2004), notes, animacy also has an effect: in DOCs, speakers typically prefer inanimate themes to animate themes (see also Bresnan and Nikitina 2003). The combined effects of these person and animacy restrictions are illustrated in (18) and (19).

- (18)a. Tania showed it to her. (prepositional dative)
 b. Tania showed him to her. (prepositional dative)
 c. Tania showed me to her. (prepositional dative)
- (19)a. Tania showed her it. (DOC)
 ‘Tania showed it to her.’
 b. ?Tania showed her him. (DOC)
 ‘Tania showed him to her.’
 c. ??/*Tania showed her me. (DOC)
 ‘Tania showed me to her.’

Speakers of Northern and Western dialects report similar effects for prepositional dative constructions and DOCs.¹ These speakers also typically find that theme-goal orders are subject to the same person/animacy restrictions as DOCs, as shown in (20).

¹ As Haspelmath notes, some speakers do not find (19c) much degraded. These same speakers however do find (20c) considerably worse. These speakers, then, are reminiscent of Swiss German dialects discussed in Anagnostopoulou (2003, ch. 5) where PCC-effects are sensitive to object order.

- (20)a. Tania showed it her. (theme-goal ditransitive)
 ‘Tania showed it to her.’
 b. ?Tania showed him her. (theme-goal ditransitive)
 ‘Tania showed him to her.’
 c. ??/*Tania showed me her. (theme-goal ditransitive)
 ‘Tania showed me to her.’

These data therefore show that theme-goal ditransitives behave like DOCs and unlike prepositional datives in terms of PCC effects. If PCC effects are a syntactic rather than a morphological phenomenon (Anagnostopoulou 2003, Rezac 2008), then these facts provide further evidence against a prepositional dative approach to theme-goal ditransitives.

The following sections describe an experiment intended to test cross speaker variation in the behavior of theme-goal ditransitives in terms of one of these diagnostics—verb class restrictions—as well as the cross speaker correlation in acceptability of theme-goal orders in active and passive contexts. The question therefore is: For the speakers whose theme-goal ditransitives are DOCs, is there a correlation between accepting theme-goal order and accepting theme-passives?

3. A judgment experiment

3.1 Method

Subjects. Participants in the experiment were 137 self described native speakers of English –90 women and 47 men. Subjects ranged in age from 18 to 63 ($M = 27.5$, $SD = 11.6$). Subjects were recruited online by the researchers in 2010. We did not require the subjects to be linguistically naïve.

Materials. The experiment consists of two subdesigns. The first subdesign focused on passivization and involved a single factor, derived subject, with two levels—theme passive and goal passive. Arguments were all 3rd person pronouns, and verbs were all monosyllabic verbs typically acceptable in both DOCs and prepositional datives. (A list of experimental sentences is provided in the appendix.)

The second subdesign focused on object orders in active contexts and crossed two factors: object order, with levels theme-goal and goal-theme; and verb class, with levels *give* class (typically acceptable in both DOCs and prepositional datives), and *donate* class (typically acceptable only with prepositional datives). This second factor was included in order to test for variation across subjects in the behavior of theme-goal orders as prepositional datives vs. DOCs. As in the passives subdesign, pronominal arguments were all 3rd person. Goal and theme interpretations of objects in both subdesigns were biased using animate (for goals) vs. inanimate (for themes) pronouns.

Eight lexicalizations were created for each of the two conditions in the passive subdesign and four conditions in the actives subdesign. These were then assigned to one of eight blocks by Latin square, such that each block contained a different lexicalization for each of these six conditions. These blocks were then grouped into eight test sets, with each test set containing 4 blocks; each subject therefore saw each condition four times. The 24 experimental sentences in each test set were pseudorandomized within blocks with 24 filler

sentences, half of which are grammatical and half ungrammatical. Subjects were randomly assigned to test sets by the software used.

Procedure. The data were gathered using a magnitude estimation procedure (Stevens 1975, Bard et al 1996, Sorace and Keller 2005). The modulus sentence is given in (21), which speakers typically find of intermediate acceptability.

(21) ?Who did you see some picture of?

The subjects completed the survey in a self paced online experiment that took around 10 minutes to complete. Data were gathered using java based WebExp2.2 software for online experiments (Mayo et al 2008). The application displayed stimulus sentences one-by-one and did not allow subjects to go back and change or view previous answers. The modulus sentence and the subject's assigned score for the modulus were displayed on each slide along with the stimulus.

The testing session consisted of five parts. The first set of slides elicited background information from the subjects, including sex, hometown and age. The second section was a set of instructions, explaining the magnitude estimation procedure. The third phase was a set of practice slides in which subjects applied the magnitude estimation procedure to line lengths. The fourth section was an additional practice phase in which subjects were introduced to applying this procedure to sentence well-formedness. The final section presented the 30 test sentences.

Following Bard et al's (1996) procedure, raw scores were normalized by dividing them by the modulus score. The decadic logarithm of these scores was then taken in order to make data normally distributed and suitable for parametric tests. To correct for possible scale bias in the data, the data were further normalized by converting to z-scores (using means and standard deviations for the 24 filler sentences)(Heycock et al 2010). This measure indicates the difference in standard deviations of each data point from the speaker's mean filler score.

Results from the second subdesign crossing object order and verb class showed, for most subjects, a pattern of responses consistent with an underlying DOC representation. That is, for most subjects, *donate*-class verbs are degraded with theme-goal orders on a par with DOC orders. A few subjects, however, rated theme-goal orders with *donate*-class verbs on a par with *give*-class verbs suggesting a representation of these forms as underlying prepositional datives. We removed from the sample 30 subjects for whom the *donate*-class/*give*-class difference was not at least as great as the smallest contrast in the sample for DOCs.

3.2. Results

Now we turn the main question focussed on here, namely the relation between theme-goal orders and theme passives in BrE. We test this by fitting an ordinary least square regression model with the dependent variable as the contrast between theme passive scores and goal passive scores, that is, the average of each speaker's theme passive scores minus their average for goal passive scores. We choose this measure as a way of effacing cross-speaker differences in acceptability of passives versus actives, generally. For the same reason, we used the contrast between theme-goal and DOC orders in active contexts as a predictor. Other predictors included were subject age, sex and home region. Table 2 summarizes this model with treatment levels for factors Region (western vs. other) and Sex (men vs. women) in parentheses.

Table 2: Coefficients for a model predicting the contrast between theme and goal passivization.

	Coefficient	Std. Error	<i>t</i>	Pr(> <i>t</i>)
Intercept	-0.832373	0.156914	-5.3047	<.0001
Actives contrast	0.527817	0.101915	5.1790	<.0001
Region (West)	-0.093130	0.109918	-0.8473	.399
Sex (Men)	0.050320	0.106010	0.4747	.636
Age	0.006828	0.004379	1.5594	.122

Residual standard error: 0.5161 on 103 degrees of freedom. Adjusted R-Squared: 0.2262

Table 2 shows a strong positive effect for the actives contrast. That is, how subjects judge theme-goal orders in active contexts vis-à-vis DOC orders correlates significantly with their judgements of theme-passives vis-à-vis goal passives. None of the between subjects variables are significant at $\alpha=.05$.

Figure 1: Mean scores for theme-goal orders in active and passive contexts

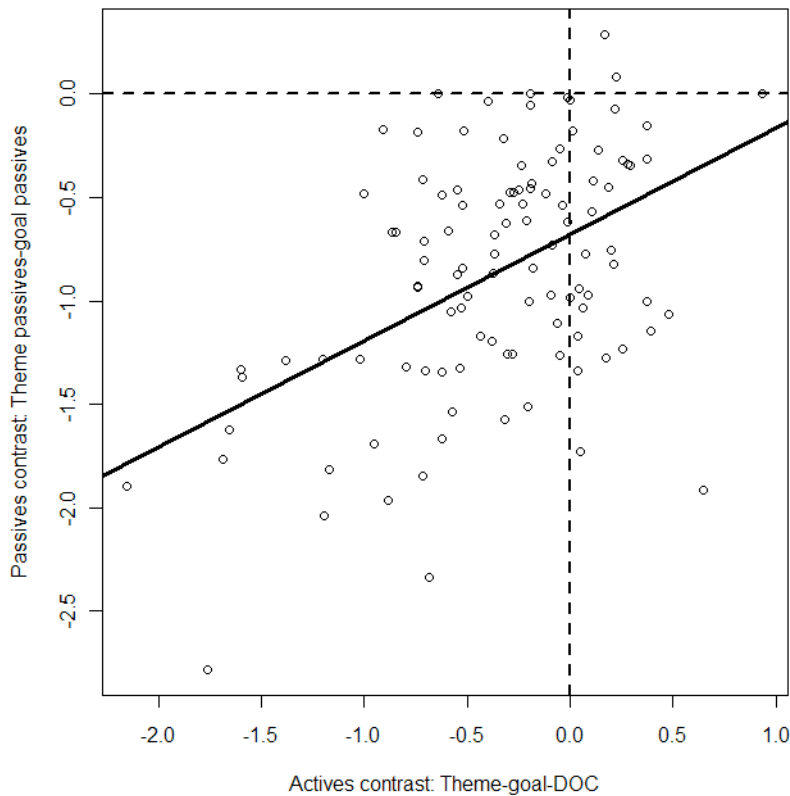


Figure 1 illustrates the correlation between active and passive scores. This figure plots, on the x-axis, the difference between each subject's mean score for theme-goal orders and that for goal-theme orders in active contexts; the y-axis plots the contrast in individual mean scores between theme passives and goal passives. Zero on each axis, marked with a broken line, corresponds to identical mean scores for theme-goal and goal-theme orders on this condition. The solid diagonal line is a regression line, fitted by ordinary least squares regression.

This plot shows that the object order contrast in active contexts correlates with theme-goal orders in passive contexts, with quite a bit of residual error. These results, therefore,

suggest support for the locality approach in that they show that acceptability of theme-goal orders in active contexts helps predict acceptability of theme-passives. The distribution in Figure 1, however, suggests a richer inventory of grammars than the two dialect distribution entailed by a single parametric difference assumed in locality approaches. In particular, locality based approaches to passive symmetry which link theme passivization to the availability of short theme movement across the goal low in the clause, leads us to expect a positive linear relationship between acceptability of theme-goal orders in active and passive contexts. Many of the subjects in our sample behave as they should from this perspective, accepting theme-goal orders in both contexts, in neither, or somewhere in between for both. However an additional, sizable set of subjects, in the lower right hand corner of Figure 3, accept theme-goal orders happily in active contexts but not in passives. This is unexpected from the perspective of a single parameter approach to object order in these two contexts, and suggest instead that some additional parameter of variation is involved.

Importantly, the logically possible pattern for which evidence is scarcest is one in which theme-goal orders in passive contexts is acceptable but not active contexts. The upper left hand corner of Figure 3 is wholly unpopulated, indicating that subjects in our sample accept theme passives only if they also accept theme-goal orders in active contexts to some degree. We treat the possibility of theme-goal orders in passive but not active contexts as unattested in the present sample.

The following discussion of English develops an account of these cross dialectal differences. For convenience, we abstract away from gradience in the availability of each of these patterns which we take to reflect competition between different grammars (Kroch 1989, 1994). We summarize the inventory of grammars to be accounted for in Table 1.

Table 1: Availabilities of theme-goal orders in active and passive contexts in BrE dialects

Grammar	Theme-goal orders in active sentences	Theme passives
1	*	*
2	Ok	Ok
3	Ok	*
4 (unattested)	*	Ok

4. Deriving the inventory of BrE grammars.

4.1 A case based approach

The experimental results just summarized suggest support for the locality approach in that they seem to provide independent evidence for movement of the theme to a position above the goal low in the clause. The data presented in the previous section has shown that the availability of theme-goal orders in active contexts is crucial to the availability of theme passives; that is, theme passivization is only possible if theme-goal ditransitives are also available, but not vice versa. This correlation between theme-goal orders in active and passive contexts is unexpected from the perspective of case absorption approaches which, unlike the locality based accounts, fail to predict the availability of theme-goal orders in active contexts.

The following discussion develops an analysis of theme-goal orders in English that follows locality approaches in assuming that passive movement is produced by the same

operation responsible for theme-goal orders in active contexts (for some speakers). The English dialectal constructions discussed so far, nevertheless, suggest two reasons for skepticism toward pure locality approaches, as in (3), where cross dialectal differences in case/agree operations play no role in accounting for the variation observed. One problem with a pure locality approach is the existence of Grammar 3—that of speakers who accept theme-goal orders in active contexts but not passives. On a locality approach, something more is required to explain why objects capable of accessing the escape hatch position cannot raise further to TP.

A second difficulty for a pure locality approach to the English dialect facts discussed here concerns the fact that, for most speakers who accept theme-goal ditransitives in active contexts, the theme must be pronominal; themes in spec, TP are subject to no such restriction. From the perspective of pure locality based approaches which explain theme-goal orders in terms of movement through an escape hatch, it's difficult to see how to express this pronoun/DP contrast only in active contexts. By contrast, an approach which relates theme movement in theme-goal constructions to nominal licensing, suggests a more familiar understanding of these facts, namely that pronouns require licensing by movement in a way that full DPs do not, akin to e.g. Romance clitic movement.

Haddican (2010), addressing these issues without the benefit of the controlled experimental results presented above, suggests one possible approach to the relationship between theme-goal orders in active and passive contexts in the spirit of previous locality approaches. Haddican assumes that the phi-probes responsible for case on both the theme and goal in double object constructions are merged on *v*; the two internal objects are merged in a low applicative phrase, the sister of *v*. The locus of variation between theme-goal and goal-theme orders, is whether the agreement between these probes and their targets trigger movement. In standard English, these probes trigger no movement, but in Northern and Western English Dialects, the phi-probes will attract the objects to *vP*. In such dialects, the arguments raise in the order in which they are probed, with the goal raising first as the closer of the two arguments, and the theme subsequently to an outer specifier of *vP*. The inversion of the two arguments therefore comes about as a consequence of the order in which they are probed by *v*, that is assuming no “tucking in” (Richards 1997). The verb subsequently raises out of *vP* to a higher head, *F*, yielding the verb-theme-goal word order. This same movement feeds theme passivisation in passive contexts.

Haddican proposes that the pronominal restriction on themes in active contexts is a consequence of a dialect-specific, syntax-to-prosody mapping rule that requires FP to spell out as a single prosodic word.

(22) Wrap (FP, Pwd)

FP can be no bigger than a prosodic word.

Haddican proposes furthermore that phases are phonological units and that material in the complement of *v*, in the next phase down—complement clauses prepositional complements or adjuncts of *V*, for example—are invisible to (21). This constraint therefore has the consequence of excluding full DP objects in spec, *vP*, that is where they appear in the order theme-goal, but not when they sit in the complement of *v*, in the goal-theme order; pairs of weak pronouns in spec, *vP*, which can form a single prosodic word with the verb in *F* via leaning are also not filtered out. Similarly, assuming chain reduction applies before (21), then full-DP themes that raise to *T* via *vP* will be exempt since the copy of the full DP in spec *vP* will delete before (21) applies.

Haddican's (2010) approach has two main disadvantages in light of the evidence presented above. First, this approach is ill-suited to expressing the Grammar 3 pattern, that of speakers who accept theme-goal orders in actives and not passives. Specifically, on this approach, it is difficult to see why movement to TP should be blocked for themes that have already escaped past the goal argument to the intermediate position spec, vP. A second disadvantage has to do with the filter in (21) itself, which Haddican proposes as a dialect-specific property and has no independent motivation. A superior account would express the weak pronoun restriction in Grammars 2 and 3 using independently needed technology.

In the remaining discussion we argue that a simpler and empirically more adequate account of the BrE facts is available on an approach that takes the crucial locus of variation between theme-goal and goal-theme linearizations not to be the availability of escape-hatch movement as in (3), but rather the nature of case/agree on the objects in these grammars. In particular, our analysis has three main conceptual ingredients. First, we propose that the crucial locus of variation between theme-goal and goal-theme orders is whether Appl is merged with an Accusative case assigning phi probe, or whether this phi probe is merged as a higher head, which we take to be a species of "linker" morpheme as in Baker and Collins (2006 cf. Jeong 2007, Johnson 1991). Specifically, Baker and Collins focus on a class of particles in Niger-Congo and Khoisan languages, which obligatorily appear between the internal objects in DOCs. The Kinande example in (23), illustrates such a construction, where the morpheme *y'* appears between the theme and goal.

(23) Kinande (Baker & Collins 2006: 308)

Mo-n-a-h-ere omukali *y'*- eritunda.
 Aff-1sS-T-*give*-Ext woman.1 **Lk.I**- fruit.5
 'I gave a fruit to a woman.'

Baker and Collins argue that the role of such particles is to assign case vP-internally (and sometimes to provide a landing site for movement), but that these morphemes play no role in the thematic interpretation of arguments. We assume, following Baker and Collins, that such morphemes are indeed a category made available by Universal Grammar and are instantiated in some Northern and Western English dialects.

A further set of assumptions is required to express the fact that theme-goal orders in active contexts is restricted to weak pronominal themes. Note in particular, that themes cannot be stressed in theme-goal constructions (24).

(24) *She gave IT/THEM me.

We adopt Roberts' and Holmberg's theory of incorporation by agreement, which assumes that weak pronouns are ϕ Ps, consisting, as they do, of ϕ -features exclusively (Holmberg 2010, Roberts 2010). When probed by a head with matching but unvalued phi features, ϕ Ps end up as copies of the probe in that all their feature values will also be represented in the probe, as a result of the valuation. These pronouns, then, will spell out in the position of the probes, rather than in their merged position by ordinary chain reduction/copy deletion mechanisms. In the case of full DP objects, agreement and feature sharing between the probes and objects will not yield an exact duplicate of the objects in the higher position, since the lexical roots will not copy via feature sharing. At chain reduction, the lower link in the chain will not delete unlike in the weak pronoun case.

Finally, we assume variation with regard to the phasehood of passive and unaccusative vP. That is in some dialects, this will be a phase and not in other dialects. In

the remaining discussion we illustrate how these assumptions help derive the inventory of BrE dialects, considering each of these grammars in turn.

Grammar 1. Following Bruening (2010), we assume that English DOCs have a high applicative structure as shown in (25). The theme is merged as the complement of the verb and the goal is introduced as the specifier of an Appl head that takes VP as its sister. The external argument is merged in the specifier of vP. We note that nothing in the analysis to follow crucially depends on the assumption of this structure versus a low applicative approach to English DOCs (Pylkkänen 2002).

(25) [_{VP} EA [_v V_[Acc] [_{AppIP} GOAL [_{Appl} Appl_[Acc] [_{VP} V THEME]]]]]

We assume that v and Appl both have uninterpretable person features, which give the value Accusative to the uninterpretable case features on the elements with which they agree. In active contexts in this grammar, Appl will therefore agree with the theme argument, and v will subsequently probe the goal. In passive contexts, where an external argument is not introduced in Spec, vP, v will be “defective” in that it will lack the person probe responsible for accusative case on the goal (Burzio 1986, Chomsky 1995). We further assume that this deficiency means that it will not be a phase head, unlike transitive v. When T is merged, a person feature on T will agree with the goal, which will raise to spec TP. The theme will be valued Accusative by Appl in the usual way.

Grammar 2. Grammar 2 differs from Grammar 1 in producing theme-goal orders in passive and active contexts. We propose that these grammars differ minimally in that the person probe on Appl in Grammar 1 is merged as a separate linker head, immediately above AppIP in Grammar 2. Little v will also be a probe, and have an [Acc] feature just as in Grammar 1. This structure is illustrated in (26).

(26) [_{VP} EA [_v V_[Acc] [_{VP} V [_{LkP} Lk_[Acc] [_{AppIP} GOAL [_{Appl} Appl THEME]]]]]]]



In active contexts in this grammar, the person probe on Lk will agree with the goal as the closest element with a person feature and an unvalued case feature. The person feature on v will subsequently agree with the theme across the goal; because the goal’s case feature has previously been valued, the goal will be transparent to agreement. That is to say, so called defective intervention (Chomsky 2000) would not apply here. (See Boeckx (2008: 162ff.), and Broekhuis (2007) for arguments against defective intervention.) Given that weak pronouns will incorporate into the heads with which they agree, the output order will be theme-goal when the theme is a weak pronoun.

As in Grammar 1, passive v will be deficient in that it will be merged without a case valuing probe and will not be a phase head. This will have the consequence that the theme will not agree with the person probe on v, but rather subsequently by the person probe on T, which will value its uninterpretable case feature Nominative. Again, because the uninterpretable case feature on the goal will have previously been valued, the goal will be transparent to this agreement operation. We illustrate this in (27).

(27)

[TP THEME [TP T_[Nom] [vP v-intr [LkP Lk_[Acc] [ApplP GOAL [Appl' Appl [vP V <THEME>]]]]]]]

Grammar 3. Grammar 3 is that of speakers who accept theme-goal orders in active contexts but not passives. We propose that this grammar differs minimally from Grammar 2 in that passive *v* is a phase head. This will have the consequence of blocking passivization of the theme.

***Grammar 4.** *Grammar 4 is the unattested pattern in our sample, whereby theme passivization is available but not theme-goal orders in active contexts. This pattern is correctly excluded under the assumptions introduced, since theme passivization is crucially dependent on the same vP-internal structure responsible for theme-goal orders in active contexts—namely an Accusative assigning linker head above Appl. The assumptions introduced above therefore correctly express all and only the attested grammars in our results.

4.2 Some remaining predictions and implications

The analysis just presented raises two main issues related to locality in A-movement more generally, which we discuss, but do not attempt to resolve fully in the remaining discussion. First, we note that if passive *v* is a phase head in Grammar 3 but not in Grammar 2, we would expect this to have other effects than blocking Theme passivization in the double object construction. For example, we might expect dialects with Grammar 2 to allow impersonal passives with a postverbal object, since *T* will be able to probe past *v*.

(28) There were killed two soldiers.

Dialects with Grammar 3 would be expected not to allow this. ‘Standard English’, of course, does not allow it, but has (29) instead:

(29) There were two soldiers killed.

This is what we expect from a system where passive *v* is a phase head: The object has to move to the vP phase edge to be accessible for probing by a higher head. It remains to be investigated whether there is any correlation between the word orders allowed by Grammar 2 and (28). (See Holmberg (2002) for a theory of variation in Scandinavian passives in just these terms, though see also Chomsky (2001) for a different analysis of (29)).

A second issue raised by the preceding discussion is the extent to which the analysis should extend to cross-speaker variation in object linearizations in Swedish and Norwegian dialects. To date, no controlled experimental work has focused on cross-speaker variation in object orders in OS and passive contexts in Swedish/Norwegian, akin to that presented here for BrE. Future work might usefully address this possibility. There are several reasons, however, to suspect that the Mainland Scandinavian pattern, may be a partially distinct from the BrE facts discussed above. Despite superficial similarities between the BrE dialect facts and Mainland Scandinavian OS, there are two obstacles to assimilating directly the movement responsible for theme-goal orders in English dialects to OS. One difference between OS and theme raising in English dialects concerns the landing site of the movement (Haddican 2010). In Mainland Scandinavian OS, the landing site must be no lower than the position of negation and sentential adverbs since objects raise past these. Holmberg (1999: 6)

notes that sentential negation must be at least as high as the first merged position of auxiliary verbs, since negation precedes the auxiliary's base position. This fact is visible in embedded clauses, which in Mainland Scandinavian, involve no verb movement. In embedded clauses with an auxiliary such as (30), negation must appear to the left of the auxiliary.

(30) (Swedish)

- a. Det är möjligt [att Per inte har kysst henne].
It is possible that Peter not has kissed her
'It is possible that Peter hasn't kissed her.'
- b. *Det är möjligt [att Per har inte kysst henne]. (Holmberg 1999:6)

An approach that directly linked English theme-goal orders to Scandinavian OS, will entail that the English main verb must also raise to a position above the first merged position of the auxiliary, since the verb sits to the left of both objects. This move is problematic however, given the availability of theme-goal orders under auxiliaries in sentences such as (31).

(31) She should have given it me.

On standard assumptions, it is difficult to see how the verb and objects can have raised to a position above the first merged position of *have* in (31). For this to be the case, *have* will need to have raised out of its first merged position. Assuming that the main verb raises via successive head adjunction and is subject to the head movement constraint, then the main verb will have to wait to raise until after *have* has gotten out of the way.

A second way in which OS and English theme-goal constructions diverge is that the latter show no sensitivity to Holmberg's generalization (HG) effects. HG is that OS only applies in verb movement contexts.² The examples in (32) illustrate this. In (32a) OS applies, moving the object out of the VP, i.e. to the left of *inte*, 'not'. (32b), however, where the verb does not raise to IP, the object also cannot raise out and instead must stay in situ, as in (32c).

(32) Swedish

- a. Jag kysste henne inte <kysste><henne>.
I kissed her not kissed her
'I didn't kiss her.'
- b. *Jag har henne inte kysst
I have her not kissed
'I haven't kissed her.'
- c. Jag har inte kysst henne
I have not kissed her
'I haven't kissed her.'

² This is one popular understanding of this phenomenon, which will do for the purposes of the present discussion. See Holmberg (1999) for an argument that the proper characterization of HG is not in terms of verb movement but is rather phonological in nature: OS may not apply across phonologically visible elements.

UK English theme-goal constructions show no similar set of restrictions: theme-goal constructions, unlike Mainland Scandinavian OS, are fine under participles in perfect tenses, as in (31), above, as well as *to*-infinitives (33), and imperatives (34).

(33) I need you to give it me.

(34) Give it me.

If theme-goal orders are sensitive to verb movement into IP in a way similar to Mainland Scandinavian OS, then all of these contexts will need to involve main verb movement to IP, contrary to standard assumptions about English verb syntax.

Assuming that the BrE and Swedish/Norwegian phenomena should be assimilated, these facts instead suggest an approach close in spirit to Anagnostopoulou's (2003) proposal for Norwegian/Swedish, by which the movement operation that permutes the order of the objects in theme passives and theme-goal OS is not OS itself, but rather derivationally prior and lower in the structure of the clause. Mainland Scandinavian and British English will then differ in that the former will have a process of OS, which the latter lacks. Whether or not OS interacts with this previous movement step in a way that affects cross-speaker variation in object orders in passive and OS contexts is a question that might usefully be addressed by future experimental work.

5. Conclusion

This article reports on a judgement experiment testing cross-speaker correlations in acceptability of object orders in active (DOC) and passive contexts in British English. The results show a positive correlation in scores, as predicted by locality/escape-hatch approaches to passive symmetry. The data nevertheless show a richer inventory of grammars than the two-dialect pattern predicted by locality approaches. We argue that this fact, together with pronoun restrictions on objects in active contexts is better modeled by a modified version of GB case based approaches to passive symmetry, and is not in fact a locality effect as suggested in much previous minimalist work (Ura 1996, McGinnis 1998, Bobaljik 2002, Anagnostopoulou 2003, Doggett 2004).

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Appendix I: Experimental sentences for English experiment.

1. Passives subdesign

Lexicalization 1

Condition

Theme pass.

Goal pass.

Sentence

It was given him.

He was given it.

Lexicalization 2

Condition

Theme pass.

Goal pass.

Sentence

They were shown her.

She was shown them.

Lexicalization 3

Condition

Theme pass.

Goal pass.

Sentence

It was sent them.

They were sent it.

Lexicalization 4

Condition

Theme pass.

Goal pass.

Sentence

It was sold him.

He was sold it.

Lexicalization 5

Condition

Theme pass.

Goal pass.

Sentence

It was posted him.

He was posted it.

Lexicalization 6

Condition

Theme pass.

Goal pass.

Sentence

They were lent her.

She was lent them.

Lexicalization 7

Condition

Theme pass.

Goal pass.

Sentence

It was brought them.

They were brought it.

Lexicalization 8

Condition

Theme pass.

Goal pass.

Sentence

It was handed him.

He was handed it.

2. Actives subdesign

Lexicalization 1

Condition

Theme-goal, *give* class

Theme-goal, *donate* class

DOC, *give* class

DOC, *donate* class

Sentence

Tim lent it her.

Tim lifted it her.

Tim lent her it.

Tim lifted her it.

Lexicalization 2

Condition

Theme-goal, *give* class

Theme-goal, *donate* class

DOC, *give* class

DOC, *donate* class

Sentence

John showed it him.

John lowered it him.

John showed him it.

John lowered him it.

Lexicalization 3

Condition

Theme-goal, *give* class
Theme-goal, *donate* class
DOC, *give* class
DOC, *donate* class

Sentence

Mike sold it her.
Mike whispered it her
Mike sold her it.
Mike whispered her it.

Lexicalization 4

Condition

Theme-goal, *give* class
Theme-goal, *donate* class
DOC, *give* class
DOC, *donate* class

Sentence

Sam pass it them.
Sam pulled it them.
Sam passed them it.
Sam pulled them it.

Lexicalization 5

Condition

Theme-goal, *give* class
Theme-goal, *donate* class
DOC, *give* class
DOC, *donate* class

Sentence

Paul handed it him.
Paul screamed it him.
Paul handed him it.
Paul screamed him it.

Lexicalization 6

Condition

Theme-goal, *give* class
Theme-goal, *donate* class
DOC, *give* class
DOC, *donate* class

Sentence

Ann sent it him.
Ann repeated it him.
Ann sent him it.
Ann repeated him it.

Lexicalization 7

Condition

Theme-goal, *give* class
Theme-goal, *donate* class
DOC, *give* class
DOC, *donate* class

Sentence

Susan gave it them.
Susan donated it them.
Susan gave them it.
Susan donated them it.

Lexicalization 8

Condition

Theme-goal, *give* class
Theme-goal, *donate* class
DOC, *give* class
DOC, *donate* class

Sentence

Charlotte brought it him.
Charlotte dragged it him.
Charlotte brought him it.
Charlotte dragged him it.