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Contents

1	Accept New Substitutes: An Analysis of Reanalysis	1
	LAURENCE R. HORN	

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1

Accept New Substitutes: An Analysis of Reanalysis

LAURENCE R. HORN

1.1 A brief trip down memory lane

For forty years, while seeking to plumb the depths of the intersection of pragmatics and logical semantics, I have drawn liberally on the inspiration of those who helped light the way including Paul Grice, of course, and—qua *éminence grise*—Lauri Karttunen. At a time when my fellow linguistics graduate students and I were wielding Rosenbaum’s MIT dissertation as a practical guide for doing transformational grammar, we did a double-take when its title—*The grammar of English predicate complement constructions*—was slyly transformed by Lauri for his *The logic of English predicate complement constructions*, which circulated (as was then almost de rigueur for influential papers in the field) as a purple mimeo samizdat.

Melding the rigorous semantics of a formal philosopher with the curiosity and *Sprachgefühl* of an empirical linguist, Lauri detailed in this study¹ the intricate web of inferences associated with factive and one- and two-way implicative predicates in the presence and absence of negation. The implicative categories, encompassing and differentiating *manage*, *fail*, and *be able*, had never been noticed before much less systematically distinguished from each other and from factives. This work, like Lauri’s early treatments of discourse referents, epistemic modality, subjunctive conditionals, semi-factives, presupposition projection—and

¹Karttunen 1970 was later distributed by the Indiana University Linguistics Club, and a shorter version of the paper was published as Karttunen 1971.

of course his seminal papers on questions and (with the collaboration of Stanley Peters) on conventional implicature in the later 1970s—served as prolegomena for fruitful work over the subsequent decades by scholars investigating compositional and lexical semantics and their interaction with pragmatic theory.

While Lauri’s focus later turned to the domain of computational semantics, crowned by his Lifetime Achievement Award from the ACL, he has returned more recently, with his Stanford colleagues, to the questions animating the 1970 paper on semantic predicate types, with a new domain of inquiry on the variant readings possible for *be lucky to* and related constructions. While the version in Karttunen 2013 utilizes data from the internet, Karttunen 2014 makes crucial use of surveys conducted on Amazon Mechanical Turk (cf. Gibson et al. 2011 for an introduction to this crowd-sourcing platform and its use in linguistic research).

As it happens, my colleagues and I on the Yale Grammatical Diversity Project (<http://microsyntax.sites.yale.edu/>) have been employing Mechanical Turk to investigate a range of phenomena, in particular the distribution of personal and presentative datives (Wood et al. 2015). On the present occasion, I will be reporting on a mini-study in experimental semantics, utilizing MTurk to investigate possible changes in progress affecting the use and understanding of a set of constructions in flux, beginning with a reanalysis in the argument structure of *substitute* and related predicates of exchange.

1.2 Substitutes old and new

Toward the end of 2015, a flurry of studies were released that found the consumption of red meats and, to a higher degree, processed meats to be linked to the development of cancer. News reports on television, in magazines, and on the internet displayed the results of these studies in a variety of eye-catching charts, such as the one in Figure 1, posted by Casey Dunlop for Cancer Research UK on 26 October 2015 and appearing at the web site of that group (<http://tinyurl.com/qbpyng3>). Note in particular the recommendation in the middle (“SWAP IT”) figure, where readers are urged to “substitute ham for chicken or tuna”.

HOW MUCH MEAT DO YOU EAT A DAY?

HOW YOUR PROCESSED AND RED MEAT CONSUMPTION CAN ADD UP OVER A DAY...

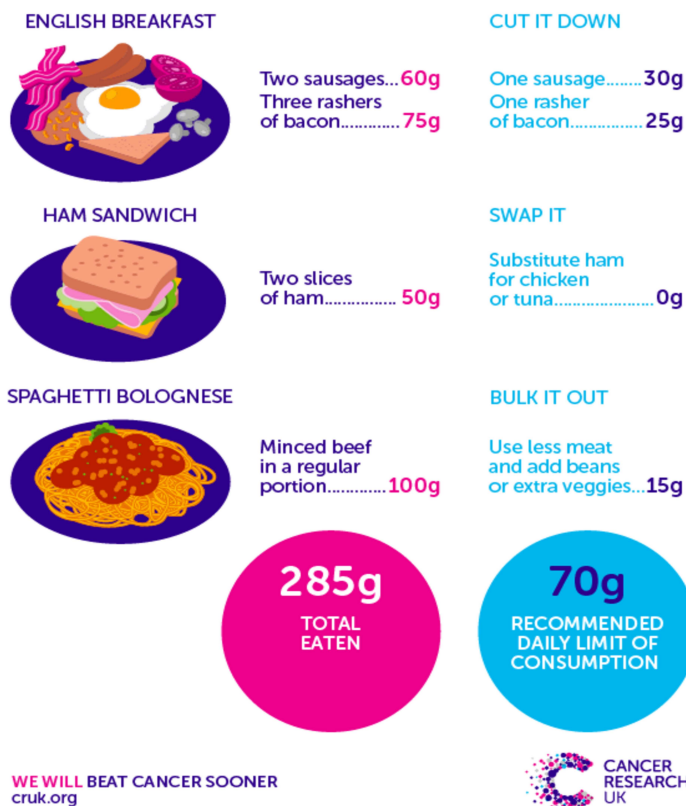


FIGURE 1

For speakers who share my reading of (1),

- (1) Substitute ham for chicken or tuna.

Cancer Research UK is urging readers to push away their accustomed platter of chicken or of tuna in favor of two tasty (if carcinogenic) slices of ham. Clearly, something has gone wrong.

I shall adapt Arnold Zwicky's terminology for the three distinct constructions at issue (Zwicky 2007, 2011, 2012) in this discussion:²

²I adapt rather than adopt Zwicky's terminology by rechristening his INNOVATIVE

- (2) Zwicky (2012) on argument structure shifts
- | | |
|----------------------------------|----------------------------|
| TRADITIONAL <i>substitute</i> : | substitute NEW for OLD |
| TRANSITIONAL <i>substitute</i> : | substitute OLD with/by NEW |
| | [≈ replace] |
| REVERSED <i>substitute</i> : | substitute OLD for NEW |

For traditionalists, the substitution of X (*ham*) for Y (*chicken or tuna*) can only be understood as a replacement of chicken or tuna with ham; for Casey Dunlop and other innovative *substitut*-ers, such a substitution yields (or at least can yield) a less carcinogenic and more kosher dénouement. There are also speakers in the transitional group, who can substitute ham **with**, but not (necessarily) **for**, chicken or tuna on the plausible reading; *substitute* for such speakers is an alternant of *replace*.

In connection with some of the examples to come, it should be noted that passive and unaccusative structures allow the same innovative interpretation as (1):

- (3) a. Ham was substituted by chicken in this recipe.
 b. Ham substitutes for chicken in this recipe.

If dictionaries can be trusted, it is still the case that most speakers (especially in the U.S.) are in the traditionalist camp. For such speakers, displaying a catalogue of instances that must (given the context and/or assumed common ground) be read with innovative uses of *substitute* can serve as a useful introduction to the reanalyzed structures.

- (4) **Reversed** and **transitional** *substitute* in the wild
- a. *Veganize Your Easter Brunch Menu*. Use hearty blue corn meal (we like Bob’s Red Mill) with a few standard ingredients like whole wheat pastry flour, salt, and baking powder. **The butter and milk are easily substituted with vegan ingredients...**
 —Care2 Causes, 3.28.2013 (<http://tinyurl.com/n3qrxmn>)
 - b. Fox News reports that workers at the Ground Zero site have been getting drunk on their lunch hour, “taking lunchtime at the local pub, **substituting food for shots and suds!**”
 —from posting by Jonathan Lighter on ADS-L, 8.14.2011
 - c. reference to “**Walt substituting Lydia’s stevia for ricin**”
 —Paskin (2013) on Breaking Bad finale
 - d. We’re often told to **substitute saturated animal fats for healthier vegetable oils**.
 — Care2 Causes, 11.17.2013 (<http://tinyurl.com/lkwfnps>)

category as TRANSITIONAL, since both non-traditional categories are innovative.

- e. Traditional moussaka is done with eggplant. What we've done is **substitute eggplant for potato**.
—Iron Chef America potato recipe show, via Victor Steinbok on ADS-L 11.8.2011

Compare (4e) with the constructed example in (4'), with traditional **NEW for OLD substitute**:

- (4') Traditional latkes contain potatoes. What we've done is **substitute zucchini for potato**.

Both traditional and innovative *substitute* can be intended when one argument is suppressed or implicit: if I tell you I substitute butter in baking, you may not know (if you haven't had me fill out a dialect questionnaire first) whether I'm planning to use butter (rather than margarine, perhaps) or whether I'm replacing butter (with vegetable shortening). And, although some may find it hard to believe, the latter reading is compatible with a sole *for*-marked argument. In the "FRESH SALADS" section of the lunch menu of Bread and Chocolate (Hamden, CT), ladies and gentlemen who lunch can opt to "**substitute for baby arugula**"—paying \$.75 to transmogrify something unspecified into arugula.

- | | | |
|-----|---|--------|
| (5) | Add | \$1.75 |
| | Grilled chicken, scoop of chicken salad
or scoop of tuna salad | |
| | Substitute for Baby Arugula or Baby Spinach | \$.75 |
| | (http://www.breadchocolate.net/) | |

Even if we don't join the prescriptivists who view reversed (if not transitional) *substitute* as a sign of the apocalypse, the obvious question is *Why?* I address this question in §3.

1.3 First Things First: dueling motivations

Ignoring for now the transitional construction with the prepositions *by* and *with*, we have two possible mappings for *substitute X for Y*, repeated here from (2):

- (6) a. TRADITIONAL *substitute*: **substitute NEW for OLD**
b. REVERSED *substitute*: **substitute OLD for NEW**

As it happens, each of these mappings has a powerful pragmatic (or rhetorical) strategy underlying it:

- (7) a. **MORE SALIENT precedes LESS SALIENT**
b. **OLD precedes NEW**

The first systematic catalog of the principles determining linguistic precedence or priority is due to Aristotle (*Categories*, Chapter 12, 14a26-b23; cf. also *Metaphysics* Δ11), for whom A can be prior (πρότερον) to B in a number of ways, including the two spelled out in (7):

- (8) (i) **WITH RESPECT TO TEMPORAL ORDER** (when A precedes or is older than B)
- (ii) WITH RESPECT TO [ASYMMETRIC] IMPLICATION OF EXISTENCE (when A is implied/presupposed by B but not vice versa, e.g. 1 is prior to 2)
- (iii) WITH RESPECT TO INHERENT ORDER IMPOSED BY A GIVEN SCIENCE (elements are prior to their representation; speech segments are prior to syllables)
- (iv) **“WHAT IS BETTER AND MORE VALUED IS THOUGHT TO BE PRIOR BY NATURE”**
- (v) WITH RESPECT TO CAUSATION (if A causes B, A is naturally prior to B, e.g. the existence of a person is prior to the true statement that there is a person)

As emphasized by the rhetorician Quintilian (*Institutio Oratoria* 9.4.23-27), the fourth of Aristotle’s rules—illustrated by the fact that “we say *men and women, day and night, rising and setting*, but not the reverse—is a general principle of natural order (*naturalis ordo*) but a violable one. Given a default assumption that priority goes to “what is better and more valued” in conjoined (or disjoined) nominals of the kind mentioned by Quintilian (and in rather more detail by Cooper & Ross 1975, Fenk-Oczlon 1989, and Benor & Levy 2006), the hearer will recover an implicature that the speaker takes the first element to outrank the second in positivity, importance, or salience, if indeed that implicature hasn’t already been conventionalized or frozen. Classic examples include *high or low, good or bad, he or she, husband and wife, gin and tonic*, and *meat and potatoes*.³ Note that the “more salient precedes less salient” implicature may be intended—and recovered—in cases not involving evaluative contrasts, such as the suggestion of relative importance of the two instruments in (9):

³A full account of such cases must allow for culture-specific subregularities in terms of what counts as more valued or salient in both frozen and non-frozen constituent conjunctions. For example, while male-referring terms generally precede female-referring ones (*he or she, man and woman, Mr. and Mrs., Romeo and Juliet*), female precedes male in the context of weddings, which affect the woman’s status more than the man’s (*bride and groom*), in kinship terms, where the woman’s role is more central (*mom and dad/pop, ma and pa*), and in politeness contexts (*ladies and gentlemen*).

- (9) Mozart wrote sonatas for piano and violin, while Beethoven wrote sonatas for violin and piano.

We can see traditional *substitute* as in (6a) as a reflex of principle (7a) priority for the more salient object—in this case the goal or replacement item rather than the source or replaced item. But that’s not the end of the story.

In our own era, more or less, Strawson (1952: 80) points to the ordinary language asymmetry of English conjunctions:

‘ $p \cdot q$ ’ is logically equivalent to ‘ $q \cdot p$ ’; but ‘They got married and had a child’ or ‘He set to work and found a job’ are by no means logically equivalent to ‘They had a child and got married’ or ‘He found a job and set to work.’

Comments Urmson (1959: 9) along the same lines:

In formal logic, the connectives “and” and “or” are always given a minimum meaning. . . such that any complex formed by the use of them alone is a truth-function of its constituents. In ordinary discourse the connectives often have a richer meaning; thus ‘he took off his clothes and went to bed’ implies temporal succession and has a different meaning from ‘he went to bed and took off his trousers.’

For Grice (1981: 186), however, any temporal or causal asymmetry associated with conjoined or juxtaposed event-reporting clauses does not result from the meaning of *and*⁴ but arises pragmatically from an implicature based on the “Be orderly” submaxim of Manner, thus yielding the differential interpretation of (10a,b).

- (10) a. He took his trousers off and went to bed.
b. He went to bed and took his trousers off.

(See Cohen 1971, Wilson 1975, Carston 1993, 2002, Gómez Txurruka 2003, King & Stanley 2005, and Lepore & Stone 2015 for critiques of the Gricean account and for alternative analyses of conjunctive asymmetry.)

In fact, the treatment of event-denoting clausal conjunctions as iconically linked to the temporal order of those events through general but defeasible pragmatic principles antedates Grice’s Be orderly submaxim by a matter of millennia. In his treatise *On the Composition of Words*, Dionysius of Halicarnassus (born 60 BCE) empirically investigates the “natural” word order principle (cf. Aristotle’s 8i) above), a principle stipulating that events are to be reported in the order in which

⁴One argument adduced for this by Grice and others is the fact that asyndetic conjunctions of events, e.g. Caesar’s *Veni, vidi, vici*, exhibit the same temporal asymmetry in the absence of *and*.

they occurred: what is prior in time should also be prior in word order (Dionysius 1910: 100-103; de Jonge 2008: 299) as in “The bow groaned and the string twanged loud and the arrow leapt away” (*Iliad* 4.125). But as Dionysius observes, this can’t be a valid rule of logic as it’s regularly violated for rhetorical effect, even by Homer himself.

A century later, the correlation between temporal and discourse priority constitutes one of the central principles of natural order in Quintilian’s *Institutio Oratoria* (IX.iv.23-27). At the same, this cannot be a matter of convention: “Another piece of gross superstition is the idea that as things come first in time, so should they come first in speech.” However natural the OLD PRECEDES NEW order appears in particular cases, the satisfaction of such principles depends on the requirements of clear communication and desired communicative effects, as Dionysius and Quintilian recognize.

Moving forward a couple of millennia, a sequence of integers is usually reported from smaller to larger—one or two things to say, two or three things I know about her, five and ten cents store. So if I hear on the radio that there’s a major slowdown on the Merritt between Exits 48 and 42, I can infer that the bottleneck is affecting the southbound traffic (since the exit numbers decrease in that direction), not the northbound lanes. A visual illustration of the tension between our two ordering principles, MORE SALIENT precedes LESS SALIENT and OLD precedes NEW, is provided by the history of the “big board” at New Haven’s Union Station giving departure and arrival information about trains. Until late 2014, the board appeared as seen in (11a). Note in particular the two Acela Express trains coming into Union Station from opposite directions, No. 2159 scheduled to arrive from Boston at 11:18 and then depart for Washington and No. 2154 scheduled to arrive from Washington at 11:30 and then depart for Boston. Unfortunately a number of Washington-bound and Boston-bound passengers not familiar with the board and reading quickly would likely end up on the wrong platform. This was due to the misreading of the information on which the train’s destination in the fourth (“**To**”) column **preceded** its source in the fifth (“**From**”) column; we tend to expect “From” to precede “To” as an instance of (

ACCEPT NEW SUBSTITUTES: AN ANALYSIS OF REANALYSIS / 9

(11) a.



The current configuration of the board is shown below; it will be noticed that there are now six columns, not seven: the source information has been entirely suppressed.

(11) b.



While passengers may miss the clacking updates of the old mechanical board, the new electronic one makes it less likely that they will head to the wrong platform. While the ordering of the columns in (11a) was

presumably prompted by the high salience of the “**To**” indicator about the goal of the trajectory rather than the “**From**” indicator about its source, this was evidently not enough to withstand the power of **OLD precedes NEW**.

1.4 Disambiguating one’s *substitutes*—or not

In the Union Station scenario, (7b) ultimately wins out over (7a), prompting the demise of the treacherous fifth column in the (11a) board, despite the higher salience of where your train is going vs. where it’s coming from. The case of *substitute X for Y* may appear different because of the role of the preposition introducing the second internal argument. The sense of *for* involved here is ‘in place of’ (OED s.v. *for*, 5). But the force of this consideration should not be overestimated, as seen from the reanalysis in the sole-argument attestation in (5), where the explicit *for*-marked material is offered in place of the implicit one.

To be sure, as is often the case in which apparently pernicious ambiguities arise from meaning shifts, the context will often disambiguate, preventing communication breakdown. In the case of *substitute*, the presence of definite and/or indefinite articles will often indicate which of the items in the reported or envisaged exchange is understood to be “old” and which “new”, thus (virtually) resolving the potential ambiguity. Thus, a customer asking the server (12a) will be understood as using old-fashioned substitute, i.e. **NEW for OLD**, with *the soup* as the menu item to be replaced. In (12b), on the other, the salad is presumably the menu item to be replaced—or substituted, utilizing reverse (**OLD for NEW**) or transitional (**OLD with NEW**) *substitute*.

- (12) a. Can I substitute (a) salad for the soup?
 b. Can I substitute the salad for/with soup?

Similarly, even if we don’t know the contents of a traditional Reuben, we can infer from the earlier exposition in the menu entry at Lefty’s, an eatery at the United terminal at Denver airport, that it is fresh turkey rather than corned beef that adventurous diners are invited to try on their (pseudo-)Reubens (datum *gratia* Joel Berson, p.c. 3.22.2015).

- (13) Reuben Sandwich. Shaved corned beef, Swiss cheese, sauerkraut, 1000 Island Dressing, rye bread. Make it a turkey reuben and **substitute the corned beef for fresh turkey**. \$10.95.

Plausibility in context can also reinforce the information structure-based inference. A particularly vivid demonstration of the role of context is provided by the pig in Dan Piraro’s classic Bizarro cartoon (Oct.

27, 2005) who addresses the waiter with the remark in (14).⁵

- (14) The special sounds good, but can I substitute the pork chop for a fried chunk of your left buttock?

On the assumption that our dapper porker is far too civilized for cannibalism, only the reversed (OLD for NEW) reading is available. But here too it's the distribution of the determiners that is really decisive. The indefinite *pork chop* counterpart in (14') conjures up a cannibal pig and a bistro with a decidedly odd selection of specials.

- (14') #The special sounds good, but can I substitute a pork chop for your left buttock?

With proper names and mass nouns, however, there's no article to help and the potential ambiguity in *substitute*—and its family members *sub* and *exchange*—is resolvable (if at all) only by discourse context and common ground.⁶ There is a plethora of such problematic cites in sportive, pharmaceutical, and culinary contexts, as in (15). (Following my usual practice, I use γ to indicate examples obtained by Googling.)

- (15) The 49ers substituted Kaepernick for Smith.
 γ You cannot substitute Tylenol for Aspirin.
 Walt substituted stevia for ricin. (cf. (4c))
 γ I substituted Granny Smith for Fuji apples.

With no morphosyntactic or intonational clues, not only do we find a surfeit of examples allowing either interpretation, but a given text may necessitate the disparate readings within the same passage. Thus consider the case of food and sex, which for some readers may evoke an old joke, as reproduced inter alia by Smith (2008: 13):

- (16) Q: How do you know when you're using food as a substitute for sex?

A: You can't even get into your own pants.

This version assumes the traditional reading for *substitute*, as the punch line makes clear. But the advice in (17a), dispensed by Beenthere3times on the CafeMom site to a woman “banned from sex” after experiencing

⁵See <https://www.facebook.com/Page.Vegetarian/posts/497374840340941> for the actual cartoon and <http://www.cafepress.com/bizarroanimals/952050> for an assortment of T-shirt spinoffs.

⁶It should be noted that intonation (in particular the association of focus with new information and the anaphoric destressing of old information) often facilitates the interpretation of substitute clauses in spoken language in the absence of determiners: *substitute TYLENOL for Aspirin* vs. *substitute Tylenol for ASPIRIN*. Since our data comes largely from written sources, I will ignore the disambiguating role of stress.

contractions at 30 weeks uses the innovative transitional *substitute*.⁷ And the joke from (16) itself reappears in (17b), punch line and all, with reverse *substitute*:

- (17) a. γ You want that baby in there as long a[s] possible. **Substitute sex with food**. lol! and maybe cool showers.
(<http://tinyurl.com/prou8ng>)
- b. γ I've **substituted sex for food**. Now I can't even get into my own pants.
(<https://tinyurl.com/yb9y5e7w>)

Now consider the following posting on the Ok-Pharmacy Health Blog —“IN HEALTH WE TRUST”—posted at <http://www.ok-pharmacy.com/blog/are-we-eating-our-sexual-desire/>:

- (18) **Are we eating our sexual desire?** (Ok-Pharmacy Health Blog, 21 Mar. 2014)



There is indisputable relation between the food we consume and our sexuality. And today millions of Americans have lost their way on sexual satisfaction in a box of chocolate. Lots of people have found **food as a substitute for sex**.

Eating is after all accessible and gives an immediate rush of pleasure. When eating compulsively we are put in a kind of trance and unedge our real desires. So, why do we **substitute sex for food**?

Sex is the essential body need. Love is the main soul need. And it is the lack of them both that people compensate with food. At some time of our life it happens that a person doesn't have any sexual desire at all. Household chores, work, lack of sleep there is no place for sex. And we start to 'chase down' our dissatisfaction with chocolates, sweets, etc. But it doesn't really work. Maybe

⁷Of course, in principle the substitution could proceed in the opposite direction, as when the “Sex diet” popularized by Kim Kardashian and Cameron Diaz (https://en.wikipedia.org/wiki/Sex_diet) proposes **substituting sex for food**. But that's not the recommendation made by Beenthere3times.

just for a moment. And we are running off for something else, maybe spicy and hot this time[...]

The same “compensation” is described as finding food as a substitute for sex at the end of one paragraph and substituting sex for food at the end of the following paragraph.

This apparent free variation in argument structure occurs even in contexts like that in (19), an example from Beth Levin cited in Zwicky 2012, where *for* introduces the sole internal argument, whether as replaced item or replacement. The room service menu at the DoubleTree Suites in Austin offers the options in (19a) with reversed *substitute* (and an elided goal), but the same menu goes on to employ the traditional *substitute* in (19b):

- (19) a. Fettucine Chipotle 12.00
 Fettucine noodles in our rich and creamy chipotle sauce with grilled chicken breast.
Substitute for Shrimp 2.00
- b. Signature sandwiches & burgers
 All sandwiches come with a choice of regular or sweet potato fries, chips, or fresh fruit.
Substitute soup or salad for side 2.00

In both cases, the (old) source item (grilled chicken breast in (19a); side ∈ {fries, chips, fruit} in (19b)) has been evoked in the context, so the respective goal item (shrimp; soup/salad) can only be the (new) replacement.

Definite anaphora can serve as an even clearer disambiguator for the intended direction of substitution. Leiby’s pseudo-paleovore below is desperately seeking for a replacement for orecchiette, as the definite anaphor would indicate even without the additional evidence from the context and the *swap out*:

- (20) I really like the sound of the orecchiette and broccoli rabe, but I’m currently on the Paleo diet...Pretty sure early man didn’t have handmade orecchiette, so I shouldn’t either. **Can I substitute that for something else?** Do you have any ancient grains in the kitchen? Or perhaps you could just swap out the pasta for a pile of sticks you found in the woods? (Leiby 2016)

As seen in the paleovore’s plea to *swap out* the pasta, the use of disambiguating particles—especially *in* and *out*—helps secure the intended direction of substitution. A team’s coach may elect to *sub(stitute) in* or *swap in Robinson for Jones* or, equivalently, to *sub(stitute)/swap/change out Jones for Robinson*. In either case, it’s Jones who takes a

seat on the bench and Robinson who enters the game. Compare:

- (21) a. For a more delicately flavored soup, **sub in** water for the vegetable stock. <http://www.popsugar.com/food/Julia-Child-Potato-Leek-Soup-Recipe-24339863>
- b. γ Why is Mike Huckabee here [in the Republican debate]? **Sub him out** for the dude sitting behind [ABC reporter] Jake Tapper.
- c. γ I **swapped in** croissants for white sandwich bread and buddy it was good.
- d. I'd have to ask my father to **swap out** his beloved Vauxhall Chevette for my Peugeot. (Courtney Maum (2014), *I Am Having So Much Fun Here Without You*, p. 108)

1.5 The innovative *substitutes*: Evidence across time—and across the pond

I follow Denison (2009) and Zwicky (2012) in reconstructing the change in argument structure of substitute as involving not a simple shift from the traditional construction (**substitute NEW for OLD**) to the reversed construction (**substitute OLD for NEW**) but instead one proceeding through the transitional way-station (**substitute OLD {with/by} NEW**), arising in turn through the influence of the corresponding construction in which *replace* governs the prepositions *with* and *by*. The second step is the restoration of the preposition *for*. This two-stage shift is depicted in Figure 2 (= Denison 2009, Figure 1, with color added).⁸

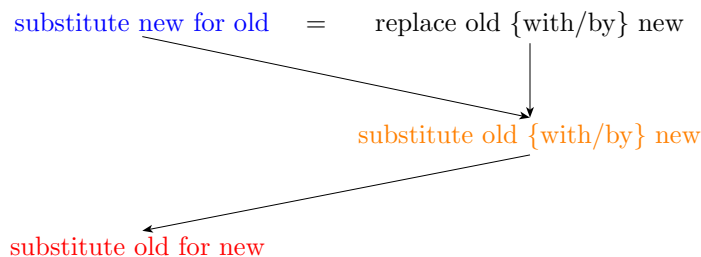


FIGURE 2

When did the reversed structure originate? Denison (2009: §2) takes this to be a recent development, one overlooked by lexicographers, by contrast with the transitional structure:

⁸I am grateful to Cambridge University Press for permission to reprint this figure from Denison 2009.

The reversed pattern *V old for new* is not mentioned in the OED at all ... I take it that reversed *substitute* is a reasonably new phenomenon ... [I]t is doubtful that the reversed pattern is more than a couple of decades old at most.

Along the same lines, Denison notes the long-running prescriptive edicts against *substitute OLD [with NEW]*, i.e. *substitute* = replace, while *substitute OLD for NEW* hasn't even come to the attention of usage guides in the U.K.

Whatever the merits of this observation, Denison overstates the lexicographic case somewhat. Here's the OED entry in question and a relevant cite:

(22) OED s.v. **substitute, v.**

3. b. With *with* (also *by*, later *for*). To fill the place of (a person or thing) with a replacement; = replace v. 2b.

1978 *Pop. Mech. (adv.)* Corvette winner may substitute automobile for \$14,000 cash.

There are six cites for transitional *substitute with/by* ranging from 1839 to 2008, as against the sole (Corvette prize) cite for reversed *substitute for*, the latter taken to be a development of the former. Adds a usage note accompanying this entry: "Use in this sense has been sometimes criticized, but is now generally regarded as part of normal standard English."

A similar note adorns the better documented passive *be substituted by* (\approx *be replaced by*) subentry at 3a, illustrated inter alia by the cites below:

(22') OED s.v. **substitute, v.**

3. a. To take the place of; to become a replacement for; to supplant; = replace v. 3. **(a) In pass., with by.**

1755 J. Smith *Printer's Gram.* ii. 30 Double Pica...[was] substituted by a new letter.

1863 *Life in South II.* 198 Good brandy being substituted by vile whiskey.

1900 *Arch. Surg.* 11 275 The medicine was continued a few days longer, and then substituted by the iodide of potassium.

2003 D. Brown *Da Vinci Code* (2004) lxxii. 404 In Atbash, the first letter was substituted by the last letter, the second letter by the next to last letter, and so on.

Thus, innovative substitute has a long paper trail, but chiefly in the transitional *with* or *by* form rather than as full reversed *substitute OLD for NEW*. But as a noun or "adjective" (i.e. modifier in a nominal

compound), *substitute* appears, from the evidence in the relevant OED entries, to function only in the sense of ‘replacement’ or ersatz; a substitute is someone ‘endowed with the authority to act on a superior’s behalf’ or something put forward as ‘a replacement, or an alternative’, never the person or thing replaced. Similarly, a substitute teacher, minister, or quarterback is always the replacement or subbed-in proxy, **NEW for [implicit] OLD**, not the original to be subbed out. How then did the innovative *substitute* arise, in particular in the reversed interpretation, and why has this interpretation become particularly robust in U.K. English?

Denison (2009: §4.2) points to the influence of football (i.e. soccer) contexts as the primary non-academic venue in which the new *substitute* is likely to occur in the U.K. Free substitution is a relatively new practice due to rule changes in British soccer, and, he notes, “The player substituted is always the **old** NP object (i.e. already on the pitch), never the **new** (on the bench).”

American sports usage is less conducive to the reanalysis of the argument structure for *substitute*, especially since this game action is typically reported in other ways. The direct object of two-place (simple transitive) *substitute* is more likely to be **new** (= “the substitute”) **than old** in U.S. English. The coach typically substitutes the backup quarterback for the (injured or ineffective) starter, **NEW for OLD**.

If the transitional construction in which *substitute* governs *with* or *by* as its preposition rather than *for*—*substitute* **OLD with/by NEW**—is essentially an alternant of *replace*, do we ever find *replace* taking *for* rather than *with* or *by*? And if so, which interpretation does it get? While (still) rather rare, such constructions are indeed attested, and as far as I can tell are only intended and interpreted as *replace* **OLD for NEW**, exactly as with the more standard prepositions governed by *replace*:

- (23) a. γ If your supporting equipment isn’t allowing you to operate efficiently, it’s time to **replace it for newer, more efficient, equipment**.
<http://www.foodmanufacturing.com/article/2016/01/5-reasons-replace-supporting-equipment>
- b. γ If your toilet uses more than 1.6 gallons per flush, you can **replace it for a high-efficiency toilet** (1.28 gallons or less) and receive a \$100 rebate.
<http://www.recordnet.com/article/20150812/NEWS/150819892>
- c. He’s having trouble with the whole God thing so I told him to just **replace “God” for “Jessa”** and, like, see if it helps

and now I'm, like, the only thing standing between him and a crack pipe.

—Jessa on “Girls”, S4E3, “Female Author” (aired January 25, 2015)

Most native English speakers rule out the possibility of *replace X for Y* entirely, including the waggish “migo” responding with tongue in cheek (and coercing a rather different sense of *for*) on a usage forum query at <http://tinyurl.com/j229uwn>:

(23') *Query from shivanand:*

What's the difference between the two sentences? i.e. what is in use, an apple or an orange, in the below two sentences?

(1) Replace apple with orange.

(2) Replace apple for orange.

Response from migo:

(1) You have an apple, you take it away and put an orange in its stead.

(2) You're replacing the apple because orange wants you to.

Unlike *substitute*, where traditional **NEW for OLD** is under pragmatic pressure from innovative **OLD for/with/by NEW**, the established argument structure of *replace* already satisfies **OLD precedes NEW**. The object of simple transitive *replace* (*replace the teacher/minister/quarterback*) has always been unambiguously OLD, so even replacing standard *with/by* with *for* as the preposition introducing the second internal argument fails to affect the possible readings.

1.6 Other reversals

In viewing the shift from **substitute NEW for OLD** to **substitute OLD for NEW** as an innovative reversal, and if we follow Denison, Zwicky, and implicitly the OED, viewing **substitute OLD with/by NEW** as a transitional stage on this path, two questions arise: Are there other constructions that have been undergone reversals? What tools can we use to systematically investigate such shifts, whether in argument structure as with *substitute* or in other constructions?

In response to the former query, consider the interpretations available for scalar correlatives like *not A let alone B*, *not A much less B*, *not A never mind B*, and *A if not B*. In canonical *let alone*, as analyzed by Fillmore, Kay & O'Connor (1988), a speaker in uttering a sentence of the form *Not X A Y let alone X B Y* presents *B* as a stronger scalar alternative to *A*. The sense is thus ‘Not (even) *A*, and *a fortiori* not *B*’. The OED entry for this use of *let alone* (s.v. *let*, v.1, 18e) treats it as a specialized colloquial imperative or absolute participle, glossed as

‘not to mention’. Standard examples, based on Fillmore et al. (1988), include those in (24).

- (24) a. He didn’t make **colonel** let alone **general**.
 b. You could never get Fred to eat **shrimp** at McDonald’s let alone **squid**.
 c. You could never get **Fred** to eat **shrimp**, let alone **Louise squid**.

While (24a) is based on a lexically imposed scale—or, more accurately, rank order (see Lehrer 1974, Hirschberg 1985, and Horn 2009 on the distinction)—the construal of *let alone* in (24b,c) invokes a non-lexical but natural assumption that squid would be a more surprising or noteworthy item for Fred to eat than shrimp. (These are analogous assumptions to the ones induced by *even*; see e.g. Karttunen & Peters 1979, Kay 1990.) The attested examples in (25) further demonstrate the pragmatic nature of the relevant scales or rank orders for *let alone*, and related scalar correlatives.

- (25) a. γ In all the years of their marriage, he had never **combed** Martha’s hair, never mind **washed** it.
 b. γ You never have any fun. When did you last get **drunk**, let alone **laid**?
 c. However, there is something rather disturbing about the thought of **having your pet stuck with needles**, let alone **seeing smoke rise from it** as well.
 (BNC, via Michael Israel: note the covertly negative DE licenser)
 d. Before she moved to California, she had never **eaten an artichoke**, let alone **read Neruda**.
 (Marly Swick (1999), *Evening News*)

The restriction described and illustrated above for the canonical construction fails to hold for many contemporary speakers, however;⁹ rather than signaling ‘Not (even) *A*, and *a fortiori* not *B*’, the easily attested reversed let alone suggests ‘Not *A*, or at least (*a debiliori*?) not *B*’. Crucially, such speakers can assign a concessive *Not A let alone B* with a concessive reading not recognized in the OED *let alone* entry.

⁹While a strong majority of cites for *let alone* occur in a negative context, not all speakers in present-day English restrict it to being a negative polarity item. Nor, indeed, did their predecessors. Most of the OED cites occur in the scope of NPI triggers (e.g. *It is hard to get a gardener who can prune a gooseberry-bush, let alone raise a cucumber* — 1892), but there’s also this one from 1853: *It . . . declares that honesty, let alone that it is the right thing, is also . . . the wisest*. I restrict my attention in the current study to well-behaved NPI *let alone* in both traditional and reversed variants.

- (26) a. “These were women who were doing radio way before **we had the idea** let alone **were born**.” —Interviewee on NPR describing an “all-girl radio station” in Memphis in the 1950s and 1960s. [e-mail from Paul Kay, 7/28/01]
- b. “Without Clinton Portis, I don’t think this team can **go deep in the playoffs**, let alone **get in**.” —Sean Salisbury on ESPN, 12/15/03
- c. “Nobody from **Victoria**, let alone **British Columbia**, had ever made it to the NBA before.” —radio interview with student-athlete from Victoria B.C. re Steve Nash, 5/19/05
- d. I hope he had some idea of what use it is to know the difference between a sonorant consonant and an obstruent. But since he was commuting twice a week, just for that class, I couldn’t expect him to **digest** let alone **swallow** everything. —from an e-mail message sent to Barbara Abbott, Jan. 2007

Strength correlates with unilateral entailment; in each instance of (*not*) *A let alone B* in (26) the *B* argument is weaker, not stronger, than the *A* argument: no team can go deep in the playoffs without getting in; if you’re from Victoria you’re necessarily from B.C.; to digest something requires swallowing it but not versa.

Similar reversals can be readily attested with *much less* and *never mind*, but we turn here to a related construction. The *A if not B* construction is available in two flavors (Horn 1972: §1.2) but in both—the concessive construction in (27a) and the suspensive construction in (27b), distinguished by prosody and NPI licensing—*B* is stronger than (unilaterally entails) *A*:

- (27) a. Dolores is **pretty** if not exactly **beautiful**. [Horn 1972: (1.85b)]
 b. Dolores is **pretty** if not downright **beautiful**. [Horn 1972: (1.85a)]

Similarly, it is easy to find fillers for the frame *X is one of the F-est if not the F-est [Y(s)]*, where being the F-est is a proper subcase of being one of the F-est:

- (28) a. γ Thai paintball teams are considered to be **one of the strongest**, if not **the strongest** in Asia.
 b. γ Q-tips are **one of the only**, if not **the only**, major consumer products whose main purpose is precisely the one the manufacturer explicitly warns against.
 c. γ He’s obviously **one of the best**, if not **the best**, in the league.

But now note that the reverse order is possible (or required?) for some; reversed *if not* is paraphrasable not by ‘or even’ (or by ‘but

maybe not quite’ as in (27a)-type concessives) but rather by ‘or at least’:

- (29) a. He’s **the best**, if not **one of the best**, middle linebackers in the league. —ESPN Sports radio talk show host Bob Golic on Bears’ Brian Urlacher, 11/27/01
- b. It’s probably **the best**, if not **one of the two or three best**, offensive lines in the league. —Phil Simms, in radio interview re Kansas City Chiefs’ offensive line, 11/10/02
- c. Just three weeks ago we were talking about these two teams being **the best in the league**, if not **the NFC**. —Sean Salisbury on slumping Giants and Bears, ESPN SportsCenter, 11/26/06
- d. This class did spark an interest in me and so I might **major** if not **minor** in linguistics. —from a student’s teaching evaluation form

As with reversed *substitute* and *let alone*, one question is which speakers accept the reversed *if not*; another is which speakers prefer it. What sort of empirical study could begin to answer these questions?

1.7 Reversals and Mechanical Turk

As noted in §1, the Yale Grammatical Diversity Project has been conducting surveys on Amazon Mechanical Turk to help delineate the nature, amount, and type of variation exhibited by a range of grammatical constructions in U.S. English. Our methodology and experimental design is described in Wood et al. 2015. For some of the phenomena in question (see pages at <http://microsyntax.sites.yale.edu/phenomena>), our studies generally support standard descriptions by dialectologists as to the regional and/or ethnic variation exhibited by the distribution of such constructions as positive *anymore*, declarative negative inversion, *so don’t I*, *needs washed*, or *I’m done my homework*. Our results have also uncovered shifts in acceptability not previously remarked on in the literature, as will be noted below. In some cases, e.g. that of “drama” or “Gen-X” so, variation is associated with age and possibly gender. In still other cases, such as copy-raising or verbal *rather*, we can attest individual variation that fails to correlate with any regional or social parameters.

Two particularly interesting cases are those of personal datives as in (30a) and what we call Southern dative presentatives as in (30b) (cf. Wood et al. 2015 for elaboration).

- (30) a. You_i need you_i a new printer.
b. Here’s you a new printer.

Personal datives are subject-coreferential non-argument pronouns, locally bound but non-reflexive, which contribute conventional implicatures constraining felicity without affecting truth conditions (Horn 2008, Hutchinson & Armstrong 2014). While the standard descriptions of this construction (e.g. Christian 1991, Webelhuth & Dannenberg 2006) associate personal datives with Southern and Appalachian speakers, our MTurk surveys indicate that this restriction has been weakening (Zanuttini et al. in prep). While personal datives are still more acceptable in the South among speakers older than 40, younger speakers accept them more widely across all geographical regions.¹⁰ This generational difference can be seen even when we break respondents down into the 3140 vs. 1830 age groups, confirming that the construction is gradually spreading from its original geographical base.

Further, while the earlier literature stipulates that personal datives require an indefinite-marked direct object—even when the indefinite doesn’t connote true partitivity (*I love me some him; He needs him some Jesus*)—this constraint is weakening among the youngest speakers in our survey (those in the 1830 age group), many of whom accept personal datives with deictic definite objects as in (31a) and a small subset of whom even accept them with bare objects as in (31b).

- (31) a. He needs him that big truck over there.
 b. He wants him chocolate

The question to which we now turn is whether a similar age-based shift can be attested for the reversed interpretations of *substitute* and of the scalar correlatives discussed in §6. In our Survey 7, distributed and compiled by Jim Wood and Matt Tyler during the summer of 2015, we find empirical support for the spread of the reversed substitute among younger speakers, representing an apparent change in progress. The relevant pilot items on our survey are identified by survey item number along with the responses we received in Table 1.

Based on these responses, we can tentatively conclude that the reversed argument structure (**substitute OLD for NEW**) is most available for the speakers in the youngest group in our survey and least available for those in the oldest group, pointing to a change in progress, although additional research will be needed to confirm this.¹¹ None of our data

¹⁰In contrast to these findings on personal datives, our studies—reported in Wood et al. 2015— suggest that the distribution of the presentative dative construction illustrated in (30b) is essentially that which is standardly posited for personal datives; age appears not to be a factor in acceptability. Thus, no apparent change in progress can be detected for the presentative datives, perhaps in part because that construction lacks the social indexing that personal datives have taken on.

¹¹It should be emphasized that despite the encouraging results obtained in the

My teacher often tells John to substitute reality television for educational programming.

Q: *What does the teacher want John to watch?*

PL1131	18-30 (%)	31-40 (%)	41-50 (%)	51+ (%)
Ed. programming	67 (54%)	42 (45%)	16 (44%)	9 (30%)
Reality TV	57 (46%)	51 (55%)	20 (56%)	21 (70%)

You can substitute pecans for oatmeal in the recipe.

Q: *Does this mean you can use oatmeal instead of pecans or pecans instead of oatmeal?*

PL1132	18-30 (%)	31-40 (%)	41-50 (%)	51+ (%)
Oatmeal	21 (17%)	4 (4%)	2 (6%)	1 (3%)
Pecans	86 (69%)	78 (84%)	34 (94%)	28 (93%)
Either	17 (14%)	11 (12%)	0 (0%)	1 (3%)

Q: *If a menu says that you can substitute salad for soup for \$2, which of these is true?*

PL1133	18-30 (%)	31-40 (%)	41-50 (%)	51+ (%)
Soup costs \$2 extra	39 (31%)	23 (25%)	8 (22%)	3 (10%)
Salad costs \$2 extra	62 (50%)	59 (63%)	24 (67%)	20 (67%)
Unclear—either possible	23 (19%)	11 (12%)	4 (11%)	7 (23%)

TABLE 1

indicate regional or social factors other than age as relevant. It will also be seen that for many speakers, both the traditional (**substitute NEW for OLD**) and reversed (**substitute OLD for NEW**) readings are potentially available. I return below to this finding.

We also gathered data in Survey 7 on responses to scalar correlatives of the kind described in §6 above, presented in contexts intended to

preliminary survey, the lack of statistical significance for most of the age-based distinctions at issue here—the one significant difference ($< .01$) being that of the oatmeal vs. pecans case—reinforces that further research, ideally utilizing a wider and more dispositive range of survey questions, will be necessary before any firm conclusions can be drawn. Thanks to an anonymous referee for stressing the need to demonstrate statistical significance and not just suggestive tendencies.

coerce reversed readings:

(32) **(not) A let alone B:**

I've never been to Paris, let alone France.

Vegetarians don't eat red meat, let alone chicken.

She's never been married, let alone had a serious boyfriend.

(33) **A if not B:**

I might major, if not minor, in chemistry.

He's the best, if not one of the best, in the whole league.

Here, our results showed no clear pattern in these cases; essentially all the respondents across age groups (and with no discernable geographic pattern) found the reversed readings available. It is not clear to us at this point whether a subtler investigation might reveal age-grading of the kind we anticipated (and found in the case of *substitute*, as Table 1 indicates) or if the shift has already progressed far enough that plausibility in context alone and not form determines the accessible readings for scalar correlatives.¹²

The difficulty of catching semantic shifts in the act is further illustrated by another construction we tested that does not involve reversed readings: the rise of metaphysical *may*. For many speakers of a certain age, the modality illustrated in (34) can only be epistemic.

(34) **metaphysical *may*:**

Without your help, I may not have succeeded.

If she hadn't fixed his printer, he may not have gotten the paper in on time. Fortunately, he did.

Better security may have prevented yesterday's terrorist attack.

The resultant 'for all I know' readings are anomalous in a context like those above, in which the proposition in question is known or asserted to be false.¹³ For all speakers, replacing *may* with *might* or *could* renders the plausible metaphysical—and thus counterfactual—readings accessible in such contexts. As with the *let alone* and *if not* sentences, however, our respondents largely accepted all the sentences in (34).

1.8 Motivating reversals: some concluding thoughts

As we saw in (20), particles can distinguish **sub/swap in NEW for OLD** from **sub/swap out OLD for NEW**. But without disambiguating particles,

¹²Another confound in (33) reported by some of our colleagues is the possibility of reading these not as scalar reversals of something along the lines of *I might major—or if not, then minor—in chemistry*.

¹³cf. Karttunen 1972 for a lucid discussion of the distinction between the epistemic ('possible that') and metaphysical ('possible for') readings and the incompatibility of the former but not the latter with knowledge of falsity.

swap, unlike *sub(stitute)*, allows only the **OLD for NEW** understanding. We also have **trade in X for Y**, where (like **sub/swap out** but unlike **sub/swap in**) the item traded is OLD (the source), not NEW (the goal), despite the preposition, as in this New York Times review by Pete Wells for Superiority Burger:

- (35) [A] meatless analogue of the Philadelphia cheesesteak interests me keenly. Shaved steak had been **traded in for** strips of yuba, the immortal Cheez Whiz for a smooth, subtly flavorful species of cashew cheese.
<http://www.nytimes.com/2015/09/02/dining/restaurant-review-superiority-burger-in-the-east-village.html>

Unsurprisingly, *trade away* has the same interpretation, but more significantly so does *trade X for Y* without particles—here too only the **OLD for NEW** interpretation is possible.

We can illustrate this by plugging in some of the most one-sided trades in the late 20th century history of baseball, those in which a promising young player (the Mets' Nolan Ryan, the Cubs' Lou Brock) who would become a member of the Hall of Fame was obtained in exchange for an aging veteran (the Angels' Jim Fregosi, the Cardinals' Ernie Broglio) toward the end of a mediocre career. Consider these four sequences plugged into a Google search:

- (36) a. “traded Jim Fregosi for Nolan Ryan”
 b. “traded Nolan Ryan for Jim Fregosi”
 c. “traded Ernie Broglio for Lou Brock”
 d. “traded Lou Brock for Ernie Broglio”

In each of the Google hits obtained—more of them showing up for the disastrous moves (36b,d) than for the good ones (36a,c)—the missing subject refers to the team or general manager who traded **away** the direct object referent and in exchange received the *for*-object referent. Thus (36a) is invoked to laud the skill or luck of the Angels for acquiring Ryan, (36b) to bemoan the ineptitude or bad karma of the Mets in giving up on Ryan, (36c) for the good luck of the Cards, and (36d) for the typical Cub-like stupidity in giving the future superstar Brock away for a washed-up pitcher like Broglio. Sample hits are in (36’):

- (36’) a. γ The Mets were also involved in what was undoubtedly the best ever trade in Angels franchise history. The Angels **traded Jim Fregosi for Nolan Ryan**. So perhaps it is a good omen that the Angels are making this trade with the Mets.
 b. γ This is Bob Scheffing, the man who **traded Nolan Ryan**

for **Jim Fregosi**. Insert colorful expletives here. [photo caption, studiosmetsimus blog site, re Mets' G.M.]

- c. γ He **traded Ernie Broglio for Lou Brock**. it's the quintessential great trade. . . [obit for Bob Howsam, Cards G.M.]
- d. γ Major League baseball: 50 years ago today, the Cubs **traded Lou Brock for Ernie Broglio**. It is considered one of the worst deals in baseball.

Note too that when these predicates of exchange appear in a simple transitive structure with the other argument unspecified, the direct object of *trade* or *swap* is always the source (OLD), not the goal (NEW). And when there **are** two arguments, definiteness doesn't matter (as it does with *substitute*): even with an indefinite definite object and a definite object of *for* only the **OLD for NEW** interpretation is accessible, as in this swap from the James Wesley Rawles 2009 survivalist manifesto, *Patriots: A Novel of Survival in the Coming Collapse*:

- (37) In all, I swapped two hundred rounds of nine-millimeter hollow points, eleven dollars in junk silver, some hand tools, and a Fluke volt-ohm meter for the gas.

<https://books.google.com/books?isbn=156975229X>

We might plausibly regard the existence of these predicates of exchange with an invariant **trade/swap OLD for NEW** interpretation as a factor in the reanalysis of **substitute NEW for OLD** into **substitute NEW for OLD**, given that a trade or swap is a common means to effect that substitution.

We conclude with a return to the new *substitute*, buttressed by the preliminary data from our Survey 7. We not only found empirical grounding for positing an age-based factor in the distribution of **substitute OLD for NEW** readings, but also a substantial group of respondents who acknowledged their acceptance of both traditional and reversed interpretations. In that light, consider the lyrics to the most celebrated musical setting our construction has enjoyed, as written by Pete Townshend and performed by The Who with Roger Daltrey on lead, released as a single in 1966 (*gratia* Matt Tyler for the reminder):

- (38) **“Substitute”** (Townshend 1966)

You think we look pretty good together
 You think my shoes are made of leather
 But I'm a substitute for another guy
 I look pretty tall but my heels are high
 The simple things you see are all complicated
 I look pretty young but I'm just back-dated, yeah

Substitute your lies for fact
 I see right through your plastic mac
 I look all white but my dad was black
 My fine looking suits are really made out of sack
 [...]
Substitute me for him
Substitute my coke for gin
Substitute you for my Mum
At least I'll get my washing done

While the highlighted verse may strike us as providing a significant antedate of the 1978 OED cite for **substitute OLD for NEW**, Denison (2009: 153) provides this footnote:

Several colleagues have wondered whether the song ‘Substitute’ by The Who (released 1966) might contain some early examples of the reversal. I wrote to ask Pete Townshend, its writer, whether the line
 (i) Substitute you for my Mum
 meant ‘replace you with my Mum’ or ‘replace my Mum with you’. The answer sent on his behalf (1 Dec. 2004) reads: ‘Pete says it is the latter (viz: “YOU” are the substitute)’. In other words the song exhibits standard usage, not reversed.

But reading of the line in (i) in particular as betokening traditional **substitute NEW for OLD** seems quite implausible in the context. Notwithstanding the claim of Townshend’s spokesperson 43 years post-recording, I side with Denison’s wondering colleagues¹⁴: the whole point of the song is that the narrator is trying to make the best of his girlfriend’s dumping him—at least he’ll get his washing done, now that he’s back with his mum.

Or is there another possibility? According to one analyst, the difficulty (perhaps even for the songwriter) in telling the old from the new goes deeper than it seems:

Grammar breaks down as well. Consider the lyrics: “Substitute: me for him./ Substitute my coke for gin./(I’ll) substitute you for my mum;/At least I’ll get my washing done.” **The consequence of incorrectly using “for” instead of “with” is to remove from the idea of substitution any contrast between authentic and er-**

¹⁴And with Uberman in the interpretation if not the prescriptive attitude in a post on the sputnikmusic forum (<http://www.sputnikmusic.com/forums/archive/index.php/t-338809.html>) lambasting The Who for their misuse of English in the final couplet of (38): “I would assume he means his mom would do the laundry and the girl wouldn’t, so shouldn’t it really be: Substitute my mom for you/at least I’ll get my washing done. Aside from not rhyming, of course.”

satz. Instead, one term is as good as the other. He (my rival) could be a substitute for me (in her affections)...or I could be her substitute for him (in our public appearances). Who knows? They are sliding signifiers. We have no idea whether the subject's taste in drinks runs to either Coca-Cola or gin, no clue as to which is the choice and which is the replacement.

(Tyndall 2011: 33, emphasis added)

We need not follow Tyndall in his prescriptive verdict on the reanalysis, much less pursue him along his every convoluted Freudian byway—

Daltrey's unflinching rendition comports with Freud's distinction between the masochist and the self-punisher. The attitude of the masochist is truly passive, reacting to the extraneous person who has taken on the subject's role. Self-punishment represents the reflexive middle voice. Temporarily, the subject relents and resorts to such neurotic self-pity in the form of self-deprecating humor. For the moment, he returns to the maternal home with a triplet that is rounded out with comedy. Ultimately, Townshend rejects sentimentality, ending the song with a final reprise that returns to the noninfantilized real world of deceit and betrayal, sackcloth and ashes. But for that brief moment, when love is too complicated and adult life too challenging, at least my fashionable clothes will be laundered properly, as they were when I was a child. Thus the first line of that binary triplet, "substitute me for him," could as likely refer to the subject's replacement of his father in an Oedipal triangle as to any reference to the literal teenage triangle of the ostensible song. No wonder they call themselves The Who.

(Tyndall 2011: 33)

—to appreciate his psychoanalytic riff on the inherent underspecification of *substitute X for Y* we have already witnessed. In addition to the "either" or "unclear" responses in Table 1 for those accepting both traditional and reversed readings of *substitute X for Y*, we have the evidence from the blog in (18) (*substitute food for sex/substitute sex for food*) and the menu in (19) (*substitute X for side/substitute [X] for shrimp*) where identical or parallel forms must be assigned opposite argument structures. Perhaps it is not only Townshend's substitutes that swing both ways.

For at least some speakers, as we have seen, "one term [i.e. one reading] is as good as another." In both the *substitute* cases (especially those requiring different readings within a single passage) and the *let alone/if not* cases, the form does not suffice to determine a meaning. Instead, the very existence of a replacement scenario (for the *substitute* case) or of a scale (for the scalar correlative cases) motivates the use of the construction in question, with the expectation that the hearer will

be able to figure out in a given context the more plausible, and hence more likely intended, interpretation. In some cases, whether by design or by oversight, that expectation may be thwarted.

I conclude with the concession that we still have a long way to go in pinning down the trajectory of the new *substitute* and in providing a full account of the factors that affect the accessibility of **substitute OLD for NEW** readings (and the survival of **substitute OLD for NEW** readings) among younger and older speakers of English across different contexts of use. The patterning of other reversals—the innovative uses of (*not*) *A* let alone *B* or *A* if not *B*—is even harder to catalogue, much less predict. More and better surveys will be needed, and we will be lucky to get useful results. But I wholeheartedly endorse Lauri’s vademecum (Karttunen 2014: slide 47): “Do experiments even if the data turns out to be more complex than your current theory can accommodate.”

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