

Whither Anankastics?

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1 Anankastics: The data

Sometimes it is natural to accept a conditional sentence ‘If ϕ , ψ ’ and its antecedent ‘ ϕ ’, and yet resist accepting its consequent ‘ ψ ’. One famous kind of example involves conditionals like the following (Hare 1971)—so-called “anankastic conditionals” or “hypothetical imperatives”:

(1) If you want sugar in your soup, you ought to ask the waiter.

Suppose you are at a restaurant, and your friend wants sugar in her soup. There is no sugar on your table, but a nearby waiter could easily deliver some. You accept both (1) and (2).

(2) You want sugar in your soup.

And yet you might resist accepting (3).

(3) You ought to ask the waiter.

After all, the soup would taste terrible with sugar. What your friend *ought* to do is get tested for diabetes.

This is not an isolated phenomenon. Suppose you are debating economic policy with Alice. Alice thinks that trickle-down economics is true. You disagree; but you think that if it *was* true, then many working-class Americans, Joe the Plumber included, could reasonably expect to be rich in five years’ time. As a way of fostering agreement on the empirical consequences of her conservative economic views, you utter (4).

(4) If you think trickle-down economics is true, then Joe the Plumber will be rich in five years.

Moreover, you accept (5).

(5) You think trickle-down economics is true.

And yet you reject (6).

(6) Joe the Plumber will be rich in five years.

After all, trickle-down economics is false.

One could describe contexts in which a similar phenomenon arises with conditionals like the following:

- (7) If you believe someone else is in this room, then we are not alone.
- (8) If you forget Jerry, then everyone is here.
- (9) If you think it likely that the polar icecaps will be frozen in 50 years, then global warming must be false.

Or if you were Derek Parfit in one of his moods (*cf.* Parfit 2011: 12, 303–304, 367), you might say (10) in an argument with a metaethical naturalist.

- (10) If you think non-naturalism is false, then much of my life has been a waste.

Debating normative metaphysics may be fraught. But it needn't precipitate an existential crisis.

A fully general characterization of the phenomenon would be out of place at this point. But to a rough first approximation: let ' ϕ ' be a sentence stating that so-and-so is in a certain psychological state, which, in fact, it is a mistake to be in. Let ' ψ ' be a sentence that someone in the psychological state ascribed by ' ϕ ' would plausibly accept. In certain contexts it can be natural to accept 'If ϕ , ψ ' and ' ϕ ', and yet resist accepting ("detaching") ' ψ ', even when the acceptability of the other sentences is made salient. Call this phenomenon 'anti-detaching'. The above characterization is intentionally informal. It is neutral on the proper analysis of the conditionals, and on whether the examples constitute failures of modus ponens. Note in addition that we haven't taken a stand on whether the conditionals are true. All we have pointed out so far is that they can seem acceptable in certain contexts and exhibit the same anti-detaching behavior.

Call the case involving (1)–(3) 'SUGAR', and call conditionals like (1)—conditionals with normatively interpreted modals ('ought', 'must', 'may') and practical attitude verbs ('want', 'intend', 'desire')—'normative anankastics'. SUGAR and other cases involving normative anankastics have received much attention in both ethics and metaethics, on the one hand, and philosophy of language and semantics, on the other. On the ethics side, normative anankastics have been used to motivate substantive normative and metanormative theses about the nature of normativity and rationality. On the language side, they have been used to motivate various revisions to our understanding of modals and conditionals in general.

These reactions have been premature. Theorists in both areas have focused exclusively on cases with normative anankastics. But anti-detaching behavior isn't limited to cases with a normative or practical subject matter. Call the case involving (4)–(6) 'TRICKLE'. Cases like TRICKLE show that the same phenomenon arises when the conditional contains an attitude verb like 'think' or 'believe' and lacks an overt normative modal. We can call these conditionals 'epistemic

anankastics' to contrast them with the intuitively practical focus of anankastics like (1). Epistemic anankastics have received little attention in the literature (though one notable exception is Dreier (2009)). Moreover, it isn't straightforward that existing explanations of anti-detaching phenomena generalize to apply to epistemic anankastics. This gives us reason to be cautious about substantive (meta)normative theses and general linguistic theses drawn on the basis of cases like SUGAR.

Our primary aim in this paper is modest. It is to canvas a range of prominent accounts of anti-detaching phenomena with normative anankastics, and argue that they fail to suitably generalize to epistemic anankastics (§2). Though we won't offer a thorough defense of a positive theory here, we raise concerns with one ground for resisting a unified explanation of normative and epistemic anankastics (§3). We then briefly suggest what we think is a more promising diagnosis of the broader spectrum of examples (§4). These tentative suggestions may be implemented in various ways in constructing a more successful theory, and can serve as a basis for future theorizing.

2 Anti-detaching: What it isn't

This section contains an all-too-brief survey of existing accounts of normative anankastics and cases like SUGAR. We argue that these accounts fail to generalize to epistemic anankastics.

2.1 *Wide-scoping*

One prominent response to anti-detaching cases like SUGAR is to treat the conditionals as having a non-obvious logical form. On "wide-scoping" accounts—as advanced by John Broome, Jonathan Dancy, Stephen Darwall, and R. Jay Wallace, among others—the 'ought' in the consequent is a practical 'ought' that takes wide scope over a material conditional.¹ (1) says that the following ought to be the case: either you don't want sugar in your soup or you ask the waiter. One can satisfy the 'ought' by taking the means *or* by abandoning the end. Anti-detaching behavior is explained on this account by the invalidity of the inference from (1) and (2) to (3), reproduced below.

- (1) If you want sugar in your soup, you ought to ask the waiter.
- (2) You want sugar in your soup.
- (3) You ought to ask the waiter.

While (1) and (2) are true on the wide-scoping account, (3) doesn't follow. You need only satisfy the wide-scope requirement specified by (1). You can do so by giving up your want for sugar. Indeed, this is what you should do.

¹See, e.g., Hill 1973, Greenspan 1975, Darwall 1983, Gensler 1985, Hampton 1998, Broome 1999, 2001, 2002, 2007, Dancy 2000, Wallace 2001, Way 2010. Terminology varies among authors.

This account of anti-detaching phenomena fails to extend to cases like TRICKLE with epistemic anankastics. The response to SUGAR gets off the ground by treating the conditional as a practical conditional enjoining a certain coherent combination of attitudes and actions, and it accomplishes this by making a claim about the syntactic position of the overt normative modal. There is no analogous normative modal in (4).

- (4) If you think trickle-down economics is true, then Joe the Plumber will be rich in five years.

This makes the wide-scoping approach suspicious from the start as an account of epistemic anankastics.

There are moves one could attempt here. One option would be to hold that (4) contains a normative necessity modal, but that it is unpronounced (covert). This would allow one to treat (4) like (1) as a wide-scope conditional at the level of logical form.

There are several problems with this reply. First, it is *ad hoc*. Covert modals have been posited in conditional constructions, but they have been treated as epistemic, generic, or Lewisian closeness modals.² This parallels more general interpretations of indicative, generic, and subjunctive sentences. Conditionals like (4) *might* constitute surprising new evidence for the existence of covert normative necessity modals in conditionals. Suffice it to say that the proposed move could take little solace in the need for covert modals elsewhere.

Second, more importantly, this implementation of the wide-scope strategy gets the meanings of epistemic anankastics wrong.³ Reconsider (8).

- (8) If you forget Jerry, then everyone is here.

Suppose that, against our better judgment, we are robbing a bank. Noting Jerry's absence, you accept (8). But you reject the wide-scope truth-conditions in (11).

- (11) OUGHT(you forget Jerry \rightarrow everyone is here)

None of us ought to be here, and forgetting Jerry is morally neutral, at best.

To be clear, we aren't claiming that there are no wide-scope rational requirements—i.e., requirements to have certain coherent combinations of attitudes, or of attitudes and actions. Our claim is simply that cases like SUGAR don't support a general hypothesis about the interpretation of (anankastic) conditionals. Wide-scoping gets no purchase as a linguistic hypothesis that explains the anti-detaching behavior of anankastics. Arguments for wide-scope rational require-

²See Kratzer 1981, 1991, Farkas and Sugioka 1983, Frank 1996, Geurts 2004, von Stechow and Iatridou 2005, Arregui 2010, Swanson 2010, Kaufmann and Schwager 2011.

³This is in addition to the independent linguistic arguments against analyzing anankastics in terms of a modal that takes wide scope over a conditional (Silk 2014a: 3–6). We won't rehearse those arguments here.

ments will need to be found elsewhere.⁴

2.2 'Ought's, ends, and context shifts

Stephen Finlay (2009, 2010, 2014) appeals to anti-detaching behavior in cases like SUGAR to motivate an “end-relational” theory of normative content. On Finlay’s view, what makes a claim normative is (*inter alia*) that it contains reference to an *end*, such as getting a job, making lots of money, or having ice cream for desert. (In general, Finlay treats ends as propositions describing future possibilities.) Normative claims make claims about the possibility, necessity, or relative likelihood of satisfying a relevant end *E*. Roughly, ‘Must ϕ ’ says that ϕ -ing is necessary for satisfying *E*, and ‘Ought ϕ ’ says that ϕ -ing is more likely to satisfy *E* than any relevant alternative. The relevant end is often supplied by the discourse context. Anankastic conditionals constitute a special case where the end is linguistically specified by the antecedent. The antecedent in (1) makes clear that the end relevant for interpreting the ‘ought’ in the consequent is the end of getting sugar in your soup.

Anti-detaching phenomena arise, on this view, when the most salient end for interpreting the unembedded modal sentence is distinct from the end specified in the antecedent of the conditional. In SUGAR, the ‘ought’ in the conditional (1) is relativized to the end of getting sugar in your soup. But this is an odd end to have. In ordinary contexts, a more reasonable end is likely to be salient. The ‘ought’ in the unembedded (3) may be relativized to a prudential end. Anti-detaching is thus diagnosed in terms of a kind of equivocation or context-shift: ‘If ϕ , ought_{*E*} ψ ’ and ‘ ϕ ’ don’t entail ‘Ought_{*E**} ψ ’.

Silk (2014a) also treats anti-detaching phenomena in cases like SUGAR in terms of shifts in context (see also Dowell 2012), but implements the idea within an orthodox Kratzerian framework of relative modality (Kratzer 1977, 1981, 1991). Modals are treated as receiving their intended reading (epistemic, deontic, teleological) relative to two contextually supplied parameters — roughly, a set of relevant worlds, and an “ordering source” that encodes the content of a relevant ideal. A modal quantifies over the relevant worlds that best approximate the ideal set up by the ordering source. (We discuss the Kratzerian apparatus in greater detail in the next subsection.) Resistance to detaching, on Silk’s (2014a) view, arises when the ordering source relevant for interpreting the conditional ‘If ψ , ought ϕ ’ yields a different verdict for the modal status of ‘ ϕ ’ than the most (or a) likely candidate ordering source relevant for interpreting ‘Ought ϕ ’ considered on its own. For example, the ‘ought’ in (1) is naturally interpreted relative to an ordering source describing (perhaps *inter alia*) the content of your desire for sugar in your soup, whereas the ‘ought’ in (3) is naturally interpreted relative to an ordering source describing what is prudentially best for you.

⁴For substantive normative discussion in ethics of wide-scope rational requirements, see, in addition to the references in note 1, Bratman 1987, Korsgaard 1997, Schroeder 2004, Kolodny 2005, 2008, Raz 2005, Scanlon 2007.

These accounts of SUGAR also fail to extend to TRICKLE. The response to SUGAR proceeds by positing a shift in the interpretation of a modal—specifically, in the end that figures in the interpretation of a normative modal, as on Finlay’s account, or in the ordering source that determines the reading of a modal, as on Silk’s account. However, there are no overt modals, normative or otherwise, in the sentences in TRICKLE. Neither Finlay’s end-relational view nor Silk’s appeal to the classic Kratzerian framework provides a unified explanation of anti-detaching behavior in normative and epistemic anankastics.

Again, there are various ways to maneuver here. One move is to posit a covert epistemic necessity modal in (4). This covert modal introduces quantification over epistemically accessible worlds—worlds compatible with what is known. This proposal has some initial appeal because, intuitively, what is relevant for evaluating the conditional (4) is what happens in worlds compatible with the beliefs of someone who accepts trickle-down economics. But simply positing a covert epistemic necessity modal isn’t the way to capture this idea. The approach predicts that (4) says, roughly (see §2.3), that Joe the Plumber gets rich in all worlds compatible with what’s known in which Alice thinks trickle-down economics is true:

- (12) (4) is true at $w_{@}$ iff for every world u such that u is epistemically accessible from $w_{@}$ and Alice thinks trickle-down economics is true in u , Joe the Plumber gets rich in u

This also gets the meaning of epistemic anankastics wrong: (4) doesn’t say that all the epistemically accessible worlds in which Alice, your conservative interlocutor, believes trickle-down economics are worlds in which Joe the Plumber gets rich in five years. You accept (4), and you believe that Alice believes trickle-down economics, but you doubt Joe’s prospects at making it rich. Interpreting (4) as in (12) would thus fail to explain (4)’s anti-detaching behavior in TRICKLE.

We are sympathetic with the informal impression that there is a kind of context-shift in cases like SUGAR. But a general account of the phenomena will require resources beyond a Kratzerian theory of relative modality or an end-relational theory of normative content. As in our discussion of wide-scoping accounts, this isn’t to deny that an end-relational theory of normative content might be correct. But it cannot be motivated by appeal to anti-detaching behavior in SUGAR; the theory, while perhaps true, needs independent support.

2.3 *Covert modals and other clandestine characters*

Anankastic conditionals raise a *prima facie* problem for the stock analysis of modals and conditionals stemming from Angelika Kratzer (1981, 1991). This has prompted various general revisions to the semantics of conditionals in the formal semantics literature. As with the substantive metanormative theses discussed in the previous subsections, these revisions to the semantics are premature and

unmotivated by a full view of the linguistic data.

As briefly mentioned above, modals, on the classic semantics, are treated as receiving their intended reading relative to two contextually supplied “conversational backgrounds,” functions from possible worlds into sets of propositions. These conversational backgrounds determine a *modal base* $f(w)$ — which determines a set of relevant (accessible) worlds $\cap f(w)$ compatible with a contextually relevant body of facts — and an *ordering source* $g(w)$ — which induces a preorder $\lesssim_{g(w)}$ on these worlds along a relevant dimension. A modal quantifies over the most highly $\lesssim_{g(w)}$ -ranked worlds consistent with the modal base. Call the worlds in a set P that aren’t $\lesssim_{g(w)}$ -bettered by any other world in P the “ $\lesssim_{g(w)}$ -best” worlds in P . This yields the following rough truth-conditions:⁵

(13) ‘Ought ϕ ’ is true iff ‘ ϕ ’ is true at all the $\lesssim_{g(w)}$ -best worlds in $\cap f(w)$

Conditional antecedents function to restrict the modal base of an implicit or explicit modal (see also Lewis 1975). To interpret a conditional, on this view, one evaluates the consequent (or the prejacent of the overt modal, if there is one) relative to (a) the ordering source at the evaluation world, and (b) the modal base at the evaluation world plus the proposition expressed by the antecedent:

(14) ‘If ψ , ought ϕ ’ is true at w iff ‘ ϕ ’ is true at all the $\lesssim_{g(w)}$ -best worlds in $\cap (f(w) \cup \{\psi\})$

That is, the conditional is true iff ‘ ϕ ’ true at all the accessible ψ -worlds that are best in view of the relevant ideal at the evaluation world.

Several authors have noted that this analysis appears to give the wrong results for anankastic conditionals (Sæbø 2001, von Stechow and Iatridou 2005). Reconsider (1). The modal base describes the relevant circumstances (e.g., facts about your physiology, the waiter, the table, etc.), and the ordering source describes the contents of your desires. The predicted truth-conditions for (1) are as follows:

(15) (1) is true at $w_{@}$ iff you ask the waiter in every $\lesssim_{g(w_{@})}$ -best world in $\cap (f(w_{@}) \cup \{\textit{you want sugar}\})$

Suppose you actually want salt in your soup. And suppose there is in fact a salt shaker on the table, and you wouldn’t want to summon the waiter unnecessarily. (1) is incorrectly predicted to be false in this scenario: since $\lesssim_{g(w_{@})}$ ranks worlds in view of your actual desire for salt, the best worlds by $g(w_{@})$ are worlds where you *don’t* ask the waiter; you grab the salt shaker. The problem is that the ordering source describes what you actually want, rather than your hypothetical desire for sugar. The conditional antecedent in (1) only serves to restrict the modal base to

⁵This makes the limit assumption (Lewis 1973: 19–20) to ensure that there is a set of most highly ranked worlds. Given our purposes, we bracket differences in strength between weak necessity modals like ‘ought’ and strong necessity modals like ‘must’ (see Silk 2014b and references therein). For ease of exposition we sometimes use ‘modal base’ to refer instead to $\cap f(w)$, the set of relevant (accessible) worlds determined by $f(w)$; context should disambiguate.

worlds where you want sugar, but leaves the ranking on those worlds untouched.

Various revisions to the standard semantics have been proposed in response. The underlying intuition is that the content of the want (desire, goal, intention, etc.) specified in the antecedent of an anankastic conditional affects the interpretation of the modal in the consequent. Capturing this has motivated denials of compositionality (Sæbø 2001, Huitink 2005a,b), modifications of syntactic structures (von Stechow and Iatridou 2005, Nissenbaum 2005, von Stechow et al. 2006), and general claims about the nature of preferences and the semantics of expressions of intention (Condoravdi and Lauer 2012). The proposed moves fail to generalize to explain the interpretation of epistemic anankastics.

2.3.1 *Ellipsis*

One approach to anankastic conditionals exploits the intuitive connection between anankastic conditionals, like (1), and sentences with purpose ‘(in order) to’-clauses, like (16) (von Stechow and Iatridou 2005, Nissenbaum 2005, von Stechow et al. 2006).

(1) If you want sugar in your soup, you ought to ask the waiter.

(16) To get sugar in your soup, you ought to ask the waiter.

(1) is treated as elliptical for something like (17).

(17) If you want sugar in your soup, you ought to ask the waiter (to get sugar in your soup).

The anankastic interpretation is derived from the combination of the modal with the implicit ‘to’-clause. The antecedent designates or raises to salience the relevant hypothetical desire or goal that determines the content of the ‘to’-clause (*cf.* Huitink 2005a,b, 2008).

The emphasis in the semantics literature has been on deriving the intuitively correct truth-conditions for anankastic conditionals, but an account of anti-detaching phenomena isn’t far behind. In many contexts the content of the implicit ‘to’-clause in the consequent of (1) will differ from the content of any implicit goal in the unembedded (3). Anti-detaching behavior would thus be diagnosed in terms of a reluctance to assert both claims in succession without making clear the shift in these implicit elements (*cf.* §2.2).

Independent problems notwithstanding (see Huitink 2008), this kind of approach clearly won’t help with epistemic anankastics. It turns on features specific to ordinary anankastic conditionals, namely, that they involve a modal that is sensitive to a relevant hypothetical desire or goal. What distinguishes the epistemic anankastic (4) from an ordinary epistemic conditional like (18) isn’t that (4) is elliptical for a hypothetical ‘in order to’-sentence.

(4) If you think trickle-down economics is true, then Joe the Plumber will be

rich in five years.

- (18) If you think trickle-down economics is true, then you haven't paid attention to the increase in inequality over the last 30 years.

2.3.2 Ordering source modification and nested modals

Sæbø (2001) and Huitink (2005a,b) suggest that the antecedent of an anankastic conditional modifies the ordering source rather than the modal base. Call these analyses *ordering source modification analyses*. For Sæbø, the expression of intention in the antecedent ('want', 'intend', etc.) makes no contribution to truth-conditions; it is treated merely as a grammatical marker that signals the contextually relevant reading for the modal. To interpret the conditional, one "looks inside" the antecedent and adds the content of the complement of (say) 'want' to the ordering source at the evaluation world. Huitink adopts a similar approach; however, to handle cases involving conflicting desires (§2.3), she identifies the ordering source with the singleton set containing the content of the desire introduced in the antecedent. This is motivated by a general claim about ordering sources: unlike modal bases, they can be sensitive to a contextually salient subset of considerations of the relevant kind.

In these ways, Sæbø and Huitink capture the intended interpretation of anankastic conditionals in terms of features specific to expressions of intention and ordering sources. They thus fail to provide mechanisms for interpreting epistemic anankastics like (4).

One way of generalizing ordering source modification analyses might be to take up insights from another kind of analysis of normative anankastics on the market: a nested modal analysis (von Fintel and Iatridou 2005, Nissenbaum 2005, Huitink 2008, Condoravdi and Lauer 2012). As noted in §2.3, Kratzer hypothesizes that the antecedent of a bare conditional restricts the modal base of a posited covert necessity modal. Nested modal analyses propose that a covert modal is also present in certain overtly modalized conditionals, like (normative) anankastics.⁶ Simply positing a covert modal won't itself help with epistemic anankastics like (4): as we saw in §2.2, simply treating (4) as implicitly epistemically modalized gets the meaning wrong. But an ordering source modification analysis might respond by treating the *content* of the belief introduced in the antecedent as

⁶Roughly, (1) is treated as saying that for all accessible worlds in which you want sugar in your soup, you ought, in view of your desires (or perhaps simply your desire for sugar) in those worlds, to ask the waiter. A bit more formally (analyses differ on what type of modality is expressed by the covert necessity modal 'NEC'):

- (i) [NEC if you want sugar in your soup] [ought (you ask the waiter)]
(ii) (4) is true at $w_{@}$ iff
for every $w_{@}$ -accessible world u in which you want sugar in your soup,
you ask the waiter in every $\lesssim_{g(u)}$ -best world in $\cap f_{circ}(u)$

This avoids the problem for the standard single modal analysis mentioned above: the ordering source for the overt modal is determined in light of your desires (or perhaps simply your desire for sugar in your soup) in worlds in which you want sugar in your soup.

modifying the (perhaps otherwise empty) ordering source of the posited covert modal. On this line, attitude verbs in general may serve as signals for the kinds and contents of ordering sources for (possibly covert) modals. (4) would receive the following truth-conditions:

- (19) (4) is true at w iff for every $\lesssim_{g'(w)}$ -best world u in $\cap f_{epist}(w)$ in which Alice thinks trickle-down economics is true, Joe the Plumber gets rich in u where $g'(w) = \{trickle-down\ economics\ is\ true\}$

The content of the complement of ‘think’—the proposition that trickle-down economics is true—serves as a kind of ideal relative to which the consequent is evaluated.

We are sympathetic with the idea that the correct interpretation of (4) is something along these lines. But it is important to distinguish a stipulation that it is the content of the belief-like attitude verb that gets added to the modal base or modifies the ordering source from a fully general, productive theory that explains how and why this occurs. What we have here is too brute a response to our problem; it just diagnoses what needs to be explained.

Here are three more specific concerns. First, the analysis incorrectly predicts that (4) is contextually equivalent to (20).

- (20) If trickle-down economics is true, then Joe the Plumber will be rich in five years.

(4) gives rise to anti-detaching phenomena; (20) does not. Second, if covert epistemic necessity modals figure in the interpretation of bare conditionals in general, one is left wondering why including the attitude verb in the antecedent in (4) would be relevant. There would seem to be no work for it to do. Third, it is false that we fail to interpret the attitude verb in (4). Consider (21).

- (21) If you doubt that trickle-down economics is true, then Joe the Plumber might not get rich in five years.

One cannot simply add the content of the complement of the attitude verb to the ordering source.

2.4 Lesson

In this section we have surveyed a range of prominent approaches to anti-detaching phenomena and anankastic conditionals. These approaches are motivated by a narrow range of cases involving conditionals with expressions of intention in the antecedent and overt priority modals in the consequent. Proceeding in this way runs the risk of drawing hasty generalizations and producing a theory that is ill-equipped to capture a broader spectrum of examples. Perhaps some of the proposed philosophical and linguistic innovations may be called for on other grounds. But they are insufficient for capturing anti-detaching phenomena

and anankastic-style interpretations more generally. An adequate solution won't lie simply in features specific to priority modals or expressions of intention.

3 Anti-detaching: A false move

In §4 we will briefly consider an alternative positive proposal. But first we wish to pause to make some general methodological remarks. We take these points to be fairly uncontroversial, but it will help to make them explicit. This will ward off some alternative approaches that we are disinclined to accept.

Consider the following alternative response to the data we have presented.

“Normative anankastics and epistemic anankastics aren't instances of the same phenomenon, and hence don't require a unified semantic treatment, because they obviously communicate different things. (1) is a straightforwardly true hypothetical imperative of the kind studied by ethicists.

(1) If you want sugar in your soup, you ought to ask the waiter.

But (4) itself is false. We only accept it in some contexts because there is a true statement in the vicinity. The true statement in the vicinity is a rough paraphrase of (4), something along the lines of (22).

(4) If you think trickle-down economics is true, then Joe the Plumber will be rich in five years.

(22) If you think trickle-down economics is true, then you ought to think that Joe the Plumber will be rich in five years.

Since the acceptability of (4) is parasitic on the acceptability of a paraphrase like (22), while (1) is true on its own, they are different linguistic phenomena and hence don't call for a single unified linguistic explanation.”

Call this the *paraphrase strategy*.⁷ The paraphrase strategy treats normative anankastics at face value. This isn't to say their semantics is straightforward; all the features that make anankastics puzzling will need to be explained. But (1) is still treated as literally true. Epistemic anankastics, by contrast, are treated as literally false and hence don't need to be explained in the same way. Rather, on this approach, there is some posited mechanism by which speakers reinterpret (paraphrase) them along the lines of (22). These normative conditionals, like (22), can then be explained in a straightforward way.

⁷This is a reconstruction of a line of response that we have encountered numerous times in personal conversation.

We think the paraphrase strategy represents a serious methodological mistake. Informal intuitions about what a speaker would be saying — which might seem to support the proposal that, not (4), but only a paraphrase of (4) needs to be explained — are of limited explanatory value. After all, one could paraphrase an ungrammatical sentence such as (23).

(23) The owner of the pigs and horses are funny.

What a speaker of (23) “would be saying” is obvious; she means that the owner of the pigs and horses *is* funny. But such a paraphrase is irrelevant for theorizing. (23) is, after all, ungrammatical. The speaker is being misled by the proximity of the plural ‘horses’ into using the plural form ‘are’. Pointing to a sentence intuitively similar in meaning which we do know how to explain doesn’t itself constitute an explanation.⁸

The approach we are following here instead individuates the phenomena to be explained by the structural features of the relevant sentences, the conditions under which they are acceptable, and the inference patterns that they license. Here we both get support for our preferred method and a strike against the paraphrase method.

Our preferred approach locates an inferential pattern shared by normative and epistemic anankastics, which we have labeled “anti-detaching.” We take the presence of a common pattern of speaker judgments about entailment and acceptability facts to be good evidence of a unified linguistic phenomenon. In the absence of further countervailing evidence, sound methodology calls for a common semantic treatment. No doubt this makes finding an adequate theory more difficult. But the right response to difficult data isn’t to paraphrase it away.

The paraphrase strategy patently fails as an informative theory about the crucial inferential features we have identified. We have seen contexts in which (4) displays anti-detaching behavior. But the paraphrase (22) needn’t display the same behavior in the same contexts: if one is willing to paraphrase the consequent of (4), then there is no obvious reason why the detached consequent (5) shouldn’t be paraphrasable in an analogous way.

(5) Joe the Plumber will be rich in five years

Of course one could deny that the relevant paraphrase is available in this case. But this raises worries about how a principled investigation will proceed. Linguistically unconstrained appeals to what the “point” or “intention” of an utterance of (4) would be strike us as sufficiently hand-wavy so as not to constitute workable hypotheses.⁹ We don’t want to deny that such appeals might be helpful for revealing relevant semantic or structural differences among the sentences we are investigating. But we take appeals to informal intuitions about what someone

⁸Contrast the literatures on E-type pronouns, sloppy anaphora, etc.

⁹Compare especially Finlay 2014: 123ff.

who uttered (4) “would be saying” to be insufficiently explanatory as they stand.

4 A way forward

The emphasis thus far has been largely negative. Our aim has been to present new data concerning anankastics and anti-detaching phenomena, along with several associated constraints on an adequate general account. These data raise problems for existing theories. In this section we will briefly consider several additional data points that will be of interest in developing a more successful positive theory. These data suggest what we view as a promising general strategy that may help guide future theorizing.

It is well known that certain embedding environments can affect the interpretation of embedded linguistic material. For instance, though pronouns are typically only felicitous in contexts where it is already accepted that a suitable discourse referent exists, the use of ‘he’ in (24)–(25) is perfectly acceptable.

(24) Suppose a thief breaks in. He would take the silver.

(25) If a thief breaks in, he would take the silver.

(cf. Roberts 1989: ex. 13)

This phenomenon isn’t limited to suppositional environments: use of ‘she’ in (26)–(27) and the proper name ‘Ursula’ in (28) are felicitous even though their existence presuppositions aren’t satisfied in the conversational context.

(26) I want a baby girl. She would be super cute.

(27) I dreamt I had a baby girl. She was super cute.

(28) There are no unicorns, but Fred thinks there are. In fact, he thinks he has a pet unicorn named ‘Ursula’. He thinks Ursula can fly.

Nor is the phenomenon limited to definite expressions: use of ‘again’ is felicitous in (29) even though the presupposition that Sasha used to smoke isn’t entailed by the discourse common ground.

(29) Sasha never used to smoke, but Gary thinks that she did. In fact, he thinks she started smoking again.

Intuitively, the relevant context for interpreting ‘(s)he’, ‘Ursula’, and ‘again’ in these examples isn’t the conversational context, but rather the suppositional context, as in (24)–(25), or attitude state, as in (26)–(29).

It is standard in linguistic semantics to posit *local* (“subordinate,” “derived”) contexts to capture these phenomena (among other things). Suppositional verbs, conditional antecedents, and attitude ascriptions establish local contexts which can serve as the basis for interpreting subordinate material. For instance, conditional consequents are interpreted with respect to the “local context” set up by

the antecedent—i.e., with respect to the “global” discourse context incremented with the information carried by the ‘if’-clause (Karttunen 1974, Stalnaker 1974, Heim 1990). The suppositional verb in (24) and conditional antecedent in (25) set up local suppositional information states that include the information that there is a thief. This licenses using the pronoun in the second sentence or conditional consequent. Similarly, attitude verbs can make salient a local context identified with the content of the attitude state (Stalnaker 1988, Heim 1992, Geurts 1998). The existence presupposition associated with ‘Ursula’ in (28) is satisfied in the local context of Fred’s beliefs. This licenses using the name. Likewise for ‘she’ in (26)–(27), and for ‘again’ in (29).

In §2.3.2 we granted that there is something intuitively correct in the idea that the antecedent of an anankastic conditional affects the modal’s ordering source. What we propose, however, is that the relevant effects result from independent principles of local interpretation.

Consider the following anti-detaching case involving quantifiers. Suppose there was a Halloween party last night, and you had a bet with Bert about whether everyone would wear a costume. You overhear Bert say that everyone at the party wore a costume. You say:

- (30) Sure, if you don’t count Chip, then everyone wore a costume. But everyone *didn’t* wear a costume.

You accept the conditional, you accept that Bert isn’t counting Chip, and yet you reject the consequent considered on its own. Intuitively, interpreting the antecedent ‘if you don’t count Chip’ in (31) affects the domain of salient individuals relevant for calculating the domain restriction on the quantifier ‘everyone’ in the consequent.

- (31) If you don’t count Chip, then everyone wore a costume.

The domain restriction on ‘everyone’ in the conditional is determined in light of the *local* context which excludes Chip. This can be the case even if Chip is considered relevant in the global discourse context, and hence if the consequent (32) would be rejected if considered on its own.

- (32) Everyone wore a costume.

We suggest that this treatment of (31) should be taken as a template for treating all anankastics. What distinguishes anankastic-style interpretations is that the consequent of the conditional is interpreted relative to the local context *of* the local context set up by the antecedent—i.e., the context of the attitude state introduced in the antecedent. In interpreting the consequent ‘you ought to ask the waiter’ in (1), you “take on board” the want described in the antecedent; you accept its desirability, and then assess the modal claim. Likewise, we suggest, for (4) and (31): in (4), you “take on board” the belief described in the antecedent—you

accept it as true—and then assess the consequent ‘Joe the Plumber will be rich in five years’; in (31), you take on board the attitude of ignoring Chip, and then assess the consequent ‘everyone wore a costume’. Anti-detaching phenomena result when one in fact rejects the attitude introduced in the antecedent of the conditional.

This hypothesis is reinforced by considering non-conditional variants of anankastic-style conditionals involving modal subordination, like (33)–(34).

- (33) Maybe you’ll want to go to Harlem. You would have to take the A train.
- (34) Maybe you think trickle-down economics is true. Joe the Plumber would get rich in five years.

Intuitively, the modal ‘have to’ in (33) is interpreted relative to the local context of the subject’s hypothetical preferences. Likewise, the thought goes, in (34) the claim that Joe the Plumber will get rich in five years is interpreted relative to the local context of the subject’s hypothetical beliefs.

This is far from a positive theory. A “doubly local accommodation” strategy may be formally implemented in a variety of ways. Nevertheless we take it to be a promising alternative to going treatments of anankastic and anti-detaching phenomena. It appeals solely to independently motivated principles of local interpretation. We already know from the existing literature that attitude ascriptions and conditional antecedents set up local contexts with respect to which subordinate material can be interpreted. It is promising to treat anankastic conditionals as a special case where both kinds of local interpretation are present. Crucially, one point in favor of this approach is that it doesn’t rely on any specific assumptions about the kinds of attitudes that can be accommodated: we have seen that local accommodation of both kinds is possible for a range of attitude verbs. We leave details of implementation for future research.

We close by noting two additional pieces of data that pose a challenge for any general theory of anankastics and anti-detaching phenomena, including the one sketched above. First, not all anankastics are equally robust with respect to variation in the subject of the attitude verb. Normative anankastic conditionals with third-person subjects, like (35), are perfectly felicitous.

- (35) If Dorothy wants sugar in her soup, she ought to ask the waiter.

But it is harder to hear third-person variants of epistemic anankastics like (4) as felicitous, as reflected in (36).

- (36) ?If Ernie thinks trickle-down economics is true, then Joe the Plumber will be rich in five years.

Third-person variants of (8) with ‘forget’ or (31) with ‘count’ are even worse:

- (37) ??If Gary doesn’t count Chip, then everyone wore a costume.

(38) #If Faith forgets Jerry, then everyone is here.

The positive account sketched above may provide a helpful framework for theorizing about these contrasts. The phenomena distinctive of anankastics, we suggest, arise when one hypothetically takes on board the attitude state described in the antecedent. This predicts that the degree to which an anankastic conditional will be felicitous in a given context, or across contexts, will depend on how natural it is to do so. Second-person examples may be more readily accommodated in general insofar as one typically has reason to consider the implications of one's interlocutors' states of mind in ordinary collaborative conversations. Third-person examples will be appropriate to the extent that it is relevant to assess the consequent clause from the perspective of the attitude subject.

Third-person normative anankastics may be relatively more natural given their usefulness for general contingency planning in establishing the means to various possible ends. This raises the question why third-person epistemic anankastics aren't similarly useful for the purpose of general counterfactual reasoning and belief revision. We won't pretend to offer an answer to this question. At minimum, observe that judgments about third-person epistemic anankastics can improve given suitable contextual cues. Imagine one has just finished an hours-long debate with Ernie over economic policy, where Ernie has staunchly defended the trickle-down theory. Upset at Ernie's insistence on defending a theory which makes such obviously false predictions, one might utter (36) to a sympathetic friend who overheard the conversation. Though one also accepts that Ernie does think trickle-down economics is true, one denies that Joe the Plumber will be rich in five years. So, although it is harder to find a context in which (36) can receive the relevant anti-detaching reading, it isn't impossible. This is all part of the data a full theory would explain.

Second, not all environments in which local accommodation occurs are equally amenable to anankastic interpretations. Consider disjunctions. The second disjunct in (39) is interpreted, roughly, with respect to a local context that results from updating with the negation of the first disjunct.

(39) Either there's no bathroom in this house or it's in a funny place.
(Roberts 1989: ex. 18, from Barbara Partee)

The pronoun 'it' in the second disjunct is felicitous because its presuppositions are satisfied in the local context which entails that there is a bathroom. Though disjunctions are generally subject to local interpretation in this way, "anankastic disjunctions" are degraded:

- (40) a. ?Either you don't want sugar in your soup, or you ought to ask the waiter.
b. ?Either you don't want to go to Harlem, or you ought to take the A train.

(41) ??Either you don't think trickle-down economics is true, or Joe the Plumber will be rich in five years.

Examples with other attitudes are even worse.:

(42) #Either you don't forget Jerry, or everyone is here.

The contrast between (39) and (40)–(42) is puzzling on the present approach. If anankastic readings are ultimately a result of (doubly) local accommodation, this would seem to predict that they should be available in any environments in which local interpretation occurs. Yet it is difficult, if not impossible, to hear the second disjuncts of (40)–(8) with respect to the local contexts set up by the attitude state introduced in the negation of the first disjuncts. We won't venture an explanation of this contrast here.

Admittedly, our proposal in this section seems to raise as many questions as it answers. These questions include: Why would hypothetically taking on board a third party's goals typically be more relevant than hypothetically taking on board a third party's beliefs? Why would considering the implications of a third party's goals from her attitudinal perspective be more relevant for general contingency planning than considering the implications of a third party's beliefs would be for general belief revision?

But these are unanswered questions situated in a broader theoretical framework that offers a general, unified explanation of epistemic and normative anankastics. This constitutes an important improvement in the dialectic. Moreover we have suggested connections between distinctive anankastic phenomena and more general phenomena associated with local accommodation. These connections put us in a better position to formulate testable theories that generate predictions relevant to the above questions. While this doesn't constitute an argument for our favored perspective, it does suggest that the view deserves careful attention. At the very least it isn't refuted once we abandon an overly narrow view of the data that needs to be explained.

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