'Practical', if that's the word

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Abstract

Certain conditionals have something other than a clause as their consequent: their antecedent *if*-clauses are 'adverbial clauses' without a verb. We argue that they function in a way already seen for those with clausal consequents, despite lacking the content we might expect for the formation of a conditional. The use of the *if*-clause with sub-clausal consequents is feasible thanks to the fact that this function does not depend on the consequent content, and so is not impeded when the consequent does not provide a proposition, question or imperative. To support this we provide meaning rules for conditionals in terms of information state updates, letting the same construction play out in different ways depending on context and content.

1 Introduction

Biscuit conditionals are a subset of conditionals well-discussed for their deviance from typical hypothetical conditionals in terms of truth conditions, acceptability, and information conveyed. Within biscuit conditionals, there is a further metalinguistic subset like (1)[1] which are used to manage communication more directly:

(1) **Looks a bit lethargic** if you ask me. (*KP4 235*)

(2) we '**advertised**' it if that's the right term to the people at large that we were looking to acquire businesses (*ICE-GB S1B-065 078*)

In (1) the *if*-clause relates to *looks a bit lethargic*. Intuitively, (2)[2] does something quite similar, but the sub-utterance *advertised* is at least as intuitive a 'consequent' as the entire clause, despite being sub-propositional. (2) is an example of *if*-clauses used to 'condition' sub-clausal segments.

We will refer to this particular subset as *lexical hedges*, to distinguish them from metalinguistic hedges like (1) more generally. We distinguish them from the more general class by how they target a particular phrase or lexical item within the utterance rather than the whole sentential unit. This is the contrast between (1) and (2): the first targets the entire statement *Looks a bit lethargic*, while the second targets *advertised*.

They are not hypothetical conditionals, but given the form of their consequent neither are they trivially the same as other metalinguistic conditionals. To address this, we will demonstrate that they are the replication of a function observable for other metalinguistic conditionals, combined with incremental processing and a heterogeneous utterance representation. We first examine some characteristics of lexical hedge *if*-clauses in support of the argument that they lack a main clause consequent. We then identify a range of antecedent-consequent connections among *if*-constructions at increasing abstraction. Distinct information state update rules are provided for these, identifying the lexical hedge use as an extension of a function already found among conditionals with clausal consequents.

2 *If*-conditionals and internal coherence

There are competing approaches to the analysis of biscuit conditionals. One branch attempts to explain the differences from hypothetical conditionals through a fundamental semantic distinction (Iatridou, 1991; Siegel, 2006). This usually incorporates a version of the Performative Hypothesis (Ross, 1967), whereby the performance of speech acts is a part of clause structure. This prefix is at a different level in the structure depending on the

[1] British National Corpus via *SCoRE* (Purver, 2001)

[2] All examples from ICE-GB are cited via the data released at http://www.chiheelder.com/?attachment_id=144

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type of conditional: for biscuit conditionals, this could be glossed as *if you are hungry, [I assert that] there are biscuits on the sideboard*. Biscuit conditionals are often called *speech-act conditionals* in reference to the intuition that they condition speech acts (or some aspect thereof) directly.

Speas and Tenny (2003) in particular have returned an updated edition of this theory of speech acts to more mainstream thinking, but we will not be taking such a directly syntactic approach here. Rather than a component of syntactic structure, we follow Ginzburg (2012a) in identifying illocutionary force as part of the semantics of certain lexical items, phrases and clause types, reflecting the action a speaker of the utterance believes themselves to have performed in uttering it.

The second group of approaches maintains that the differences between hypothetical and biscuit conditionals can be explained through pragmatic means (Franke, 2007; Biezma and Goebel, 2019). A pragmatic approach to biscuit conditionals is taken here: if possible, it is preferable to handle the differences through general principles and a unified analysis, rather than developing a semantic split. We will return to this when introducing the model used later.

Metalinguistic conditionals, including lexical hedges, are sometimes discussed as a subset of biscuit conditionals, since they too lack the intuitive link between the antecedent and consequent case found in hypothetical conditionals. Declerck and Reed (2001) recognise 'metalinguistic-P conditionals', which make a comment on "the form of the Q-clause [consequent-clause], on the choice of words in it or on the pronunciation of a word", but do not particularly propose an analysis, or very clearly distinguish them from 'speech condition-defining-P conditionals'. Elder (2015) makes a specific corpus case study of *if you like*, but otherwise classes lexical hedges amongst other metalinguistic conditionals which function as an 'illocutionary force hedge', while Quirk et al. (1985) include them among the class of other metalinguistic comments rather than discussing them in the context of other conditionals.

Dancygier (1992) distinguishes 'metatextual' conditionals (e.g. both (1) and (2)), from 'speech-act' conditionals (i.e. standard biscuit conditionals), although discussing the whole clause as the "consequent" in both cases. Dancygier's copious use of scare quotes indicates discomfort with assessing the entire clause as consequent, but the alternative that the consequent is the "focus" itself rather than the clause, is not explored. However, we consider the analysis of a comment on a single word as re-setting the entire utterance as a conditional to be unappealing, as will be briefly discussed in Section 2.1.

2.1 *If*-clause lexical hedges: features

The examples in this section were found via two sources: (i) a sample of 800 non-embedded *if*-clauses from the spoken data section of the BNC, where those associated with a non-clausal consequent were reviewed to identify those acting as lexical hedges; and (ii) among corpus study data from Elder (2015), found by reviewing the *if*-clauses classified as *Illocutionary Force Hedges*, where they were included among that class.

These *if*-clauses tend to appear adjacent to the hedged sub-utterance rather than at the beginning of the clause. Among the 41 examples identified, all but four have the *if*-clause directly adjacent to the focus-word or focus-phrase.

Lexical hedges can be contrasted with 'genuine' elliptical consequents. Where the consequent is sub-clausal, like in (3), its role in context may not be as a proposition:

(3) climate is just a little '**transient part**' *if you like* in this process *(ICE-GB S2A-043 044)*

(4) and then cut some bacon up, put that in saucepan just let it brown a bit [...] in a bit of fat, er soften onions, then put mince in, brown mince [...] erm **a bit of garlic** *if you like garlic (KB2 359–363)*

In (4) *a bit of garlic* essentially functions as an imperative on the basis of the previous instruction to "put mince in", and given the context could be expanded in interpretation to something like *put a bit of garlic in*. Unlike (4), for the first example to be elliptical we would need to posit the existence of an implicit clause that has no evidence anywhere elsewhere in the utterance. Either we treat the entire clause as the consequent, insist on a 'covert' conditional, or accept that *transient part* functions as a consequent item in its own right.

Moving these *if*-clauses to the clause boundary changes their interpretation. Consider (5):

(5) I'm sure you could all add to that list of kind of 'symptoms' **if you like** of waste

and inefficiency in organised society *(ICE-GB S2A-049 016)*

If the *if*-clause were fully pre-posed (*If you like, I'm sure...*) it would be interpreted as hedging the entire clause, not just *symptoms*. Given the preference for placing the *if*-clause adjacent to the target segment and the difference in interpretation, analysing the whole clause as consequent in (5) does not seem advantageous.

Nevertheless, we may consider (6):

(6) Is, is the a ⟨pause⟩ a danger Geoffrey Hoskin that the instability in the Soviet Union, if one can still call it, a Union, could affect us, could spill out across its borders? (*KJS 23*)

If this *if*-clause were external (*if one can still call it a Union, is there a danger...*), the potential issue with *union* would remain identifiable thanks to its explicit mention. In such a case it would be more reasonable to interpret the *if*-clause as associated with the whole utterance, akin to a modified (5). In contrast to (5) and its modification, the overall effect remains essentially the same as in the original, as a fault in a specific component of the utterance creates a fault in the utterance as a whole.

However, we should not over-generalise this. Re-simplifying the adjacent lexical hedge uses as therefore being conditions on the entire surrounding clause, on the grounds that full utterances are hedged in other cases, would be attempting to find the shared features in the wrong place. We can do better by recognising that *if*-clauses can be used to perform the same function at different levels – respecting both the similarity to self-repair of this particular use, and desire for a consistent analysis across *if*-clause uses.

2.2 Multi-purpose *if*-clauses

Acceptable use of a conditional generally requires some 'meaningful' link between antecedent and consequent (Douven, 2008; Skovgaard-Olsen et al., 2016). Biscuit conditionals are infamously a case where this fails, and we see this connection as something other than between the situations themselves, e.g. relevance of the consequent content.

The proposal that follows is based on the idea that for the utterance of a conditional to be acceptable, it must be possible to identify some 'meaningful' link between consequent and antecedent. On this basis we will walk through an increasing mentalisation around what this link is found to be, from a link between the antecedent and consequent cases, to between the antecedent case and some predication on the consequent content, and finally between the antecedent case and some predication on the consequent utterance or non-content aspect thereof. As the final case involves predication on a non-content aspect of the utterance, it can be applied to elements which do not provide a main clause or perform a dialogue move in their own right.

2.2.1 Model Set-up

As our formal framework we use Type Theory with Records (hereafter TTR) (Cooper, 2005, 2012; Cooper and Ginzburg, 2015), a model-theoretic rich type theory. A key notion in TTR is that of judgement, with $a : T$ indicating that object a is judged to be of type T. A record is a set of fields each with a label and a value: $a = v$ signifies that the value in field a is the object v. A record type is a set of labels and types such as a and T. Records can be judged to be of some record type on the basis of whether the values in the record's fields are of the type specified for the same labels in the record type, e.g. whether v is of type T.

To identify problems with the utterance itself, we need to engage with it as a whole rather than focusing directly on the semantic content. We use Ginzburg's (2012b) notion of a *Locutionary Proposition*, an utterance represented by its speech event and the classification of said event (e.g. that it is the utterance of a particular sentence). The notion of a proposition used here is an Austinian proposition, true or false depending on whether the situation in question is indeed of the given situation type. A very minimal example is given in (7): note the recognition of features for semantic content and phonology, and requirements on the context (a situation, speaker and location).

(7) *LocProp* for "I am here":

$$\left[\begin{array}{l} \text{sit} = u_0 \\ \text{sit-type} = \\ \left[\begin{array}{l} \text{phon} : \text{I am here} \\ \text{cat} = \text{V[+fin]} : \text{PoS} \\ \text{constits} = \{\text{I, am, here}\} : \text{set(sign)} \\ \text{dgb-params} : \left[\begin{array}{l} \text{spkr} : \text{Ind} \\ \text{l} : \text{Loc} \\ s_0 : \text{sit} \end{array}\right] \\ \text{cont} = \text{Assert(dgb-params.spkr, dgb-params.addr,} \\ \quad \left[\begin{array}{l} \text{sit} = s_0 \\ \text{sit-type} = \left[\begin{array}{l} c_0 : \text{in(dgb-params.spkr,} \\ \quad\quad \text{dgb-params.l)} \end{array}\right] \end{array}\right] : \text{IllocProp} \end{array}\right] \end{array}\right]$$

The type in *sit-type* can be composed with the help of linguistic resources known by the agent: in this case the types for a declarative clause and for the three lexical items used. We will use a and c to refer to the locutionary propositions of the antecedent and consequent. We will also reference their content X via the shorthand a.ct and c.ct, following the path c.sit-type.cont = Move(spkr, addr, X). In the case c is used to assert a proposition, like (7), this will be a path to the proposition.

We characterise the 'meaningful link' between antecedent and consequent as a question and satisfactory response following Biezma and Goebel (2019), most commonly that the consequent content satisfies an antecedent-based question[3] *if a.ct, what?* as follows:

(8) satisfy(c.ct, λx.if(a.ct,x))[4]

We use the *satisfy* relationship in (8) to indicate acceptability as a resolving answer as per Ginzburg (2012b): a potentially resolving answer which enables some desired outcome to be fulfilled.[5]

We set up a minimal dialogue representation as follows, based on the KoS framework from Ginzburg (2012b): the dialogue gameboard represents a single agent's understanding of the dialogue state at a given point, and tracks current questions under discussion (*QUD*), conversation history (*Moves*), as-yet-ungrounded utterances (*Pending*), and the common ground (*Facts*). We may define update rules for the gameboard as pairs of state types: the precondition on the state the board must be in for the rule to be applied, and the effects of applying the rule. For space, we will indicate the latest move by its content.

2.2.2 How to handle an *if*-conditional

The kinds of questions discussed in Section 2.2 can be partitioned into three groups, and following (8) (repeated here) can be represented as follows:

(9) a. *Content-based (simple):*
satisfy(c.ct, λx.if(a.ct, x))

b. *Content-based (complex):*
satisfy(c.ct, λx.if(a.ct, $f(x)$)),
for some predicate f

c. *Utterance-based:*
satisfy(c, λx.if(a.ct, $f(x)$), or
satisfy($c.z$, λx.if(a.ct, $f(x)$),
for some path z in c and f as above

The second and third groups could be merged – content is one of the fields of the consequent, and is therefore covered by the 'utterance-based' category. However, we treat it separately as it is the linking case: the surrounding question has been made more complex, but the required element is still the same as in the content case. The third group is essentially a generalisation beyond the content to other aspects, and does not need to involve the content of the consequent at all. In the rest of this section, we will see these play out in different ways: the first for hypothetical conditionals, the second for typical biscuit conditionals, and the third initially for metalinguistic uses on full-clause consequents, then on sub-clausal units.

The idea that at least some biscuit conditionals provide a condition on the felicity of the consequent has been frequently raised (e.g. Sweetser, 1990), and this targeting of felicity conditions is indeed something which naturally scales down from complete utterances to term choice. When we progress to explicitly metalinguistic cases, we will use *groundability* as a general predicate.

The dialogue state update for hypothetical conditionals can now be given as follows:[6]

(10) if she disappeared I'd be worried all time *(KB1 527)*

(11)
$$\left[\begin{array}{l}\text{pre}: \\ \quad \left[\begin{array}{l}\text{LatestMove} = \\ \quad \text{Assert(spkr, if}(a.\text{ct}, c.\text{ct})) : \text{LocProp} \\ \quad c_q : \text{satisfy}(c.\text{ct}, \lambda x.\text{if}(a.\text{ct}, x)) \\ \quad \text{QUD} = [?\text{if}(a.\text{ct}, c.\text{ct}) \mid \text{rest}] : \text{poset(Question)}\end{array}\right] \\ \text{effects}: \\ \quad \left[\begin{array}{l}\text{QUD} = \text{pre.QUD.rest} : \text{poset(Question)} \\ \text{Facts} = \text{pre.Facts} \cup \text{if}(a.\text{ct}, c.\text{ct})\end{array}\right]\end{array}\right]$$

The speaker has asserted the conditional *if a, c*, and the agent finds it satisfies the constraint that the consequent content is a satisfactory answer to the simplest of the three question types. A related

[3] Conditionals have also been proposed to express functions from situations of the antecedent to those of the consequent (see Cooper). Some relation as a core meaning is worth consideration, given a connection is evidently leveraged for non-hypothetical cases. For now however, we content ourselves with the coherence constraint on the connection.

[4] This simple gloss is used for the content of a conditional to let us reference the antecedent and consequent easily.

[5] e.g. when asking *Where are they going?* to learn a destination, a potentially resolving answer either provides a location or states that there is no such destination: a resolving answer will provide the actual destination.

[6] Satisfaction of the question is expected to have other effects e.g. inferring support for a 'meaningful link' in the form of a new topos if one was not already known (see e.g. (Breitholtz, 2014) for discussion of the role of topoi in identifying non-logical connections in dialogue).

issue is raised to QUD, as an agent may accept or reject the assertion's content. This is a general rule for assertions, and means that explicit agreement or disagreement with the most recent assertion will be coherent with respect to the QUD. For the example, we could gloss this as *is it so that if she disappeared, spkr would be worried all the time?*. In enacting the rule above, the assertion is accepted, adding it to *Facts* and removing the now-resolved issue of *?if(a.ct, c.ct)* from *QUD*.

Although we may also include a general rule that any assertion should address a question on *QUD*, we require a connection specifically between antecedent and consequent. They should still be considered with respect to each other if separated by distance, as in the retrospective addition of an *if*-clause to a speaker's own assertion or to that of another speaker. Antecedent-consequent coherence is required even when the original assertion is already recognisable as addressing another live issue.

Where the consequent content fails as a resolving answer to the direct content-based question, as in the case of biscuit conditionals, we must re-evaluate the question with respect to other potential relationships between antecedent and consequent.

The rule given in (13) is for this case, and specifically where we can additionally determine that the consequent holds outside of the conditional. It is commonly noted that biscuit conditionals are used to convey their consequent, but this is not always so. Compare "If you want a huge lie, G.W. Bush and Condoleezza Rice are married" (from Siegel (2006)) and "If you want a huge lie, there are political leaflets on the table": it takes further reasoning to determine whether the consequent is itself the sought-after lie, or true information which will help the addressee to find one (e.g. pre-existing knowledge that the consequent is false, a topos that politicians are dishonest). The specifics of the predicate in the question will depend on a more complex combination of lexical content, reasoning, and recognition of utterance goals than we can hope to approach here: we fall back on some notion of *relevance*, a general case associated strongly enough with biscuit conditionals that it is one of their alternative names.

(12) you can put carrots in it if you want *(KB4 206)*

(13)
$$\left[\begin{array}{l} \text{pre}: \left[\begin{array}{l} \text{LatestMove} = \\ \quad \text{Assert(spkr, if}(a.\text{ct}, c.\text{ct}))\rangle : \text{LocProp} \\ \text{c}_{q1} : \neg\text{satisfy}(c.\text{ct}, \lambda x.\text{if}(a.\text{ct}, x)) \\ \text{c}_{q2} : \text{satisfy}(c.\text{ct}, \lambda x.\text{if}(a.\text{ct}, \text{rel}(x))) \\ \text{QUD} = [?c.\text{ct} \mid \text{rest}] : \text{poset(Question)} \end{array}\right] \\ \text{effects}: \left[\begin{array}{l} \text{QUD} = \text{pre.QUD.rest} : \text{poset(Question)} \\ \text{Facts} = \text{pre.Facts} \cup c.\text{ct} \end{array}\right] \end{array}\right]$$

This time, the consequent content does not provide a satisfactory answer to the most direct *if*-based question, which we may gloss for (12) as *if you want, what?* However, the antecedent and consequent cases can be related by including predication in the question – the second case on our list at the beginning of this subsection. Re-framing it, we might identify the potential issue resolved by the consequent as *if you want, what is relevant?* – that the addressee *can* make the wanted addition to the recipe.

Given that we have failed to draw a direct relation between the antecedent and consequent cases, this conditional can be treated as a vehicle for conveying the consequent (having already said that we are dealing with the set of biscuit conditionals where the consequent holds). The relevant proposition raised to *QUD* for potential acceptance is simply the consequent, rather than the entire conditional. We can still compose an asserted conditional, but a link is no longer identified directly between the antecedent and consequent cases themselves: the explicit conditional content is a side-effect produced in pursuit of the actual purpose of the utterance, and not necessarily worth keeping.

The third question set described in (9) also uses predication to relate *if*-clause and consequent, but beyond taking communicative issues into account for the content, it deals with the consequent utterance. We may predicate on an aspect of the utterance other than content, or on the utterance itself. Rather than managing information, this usage manages the groundability of the consequent utterance itself, the content of the *if*-clause flagging a potential issue with the consequent utterance (e.g. appropriateness). We are no longer interpreting a grounded dialogue move, but evaluating one still pending.

(14) if I might say so disabled people were treated oddly in those days *(HDM 275)*

(15)
$$\left[\begin{array}{ll}\text{pre}: & \left[\begin{array}{l}\text{LatestPending} = \\ \quad \text{Assert(spkr, if}(a.\text{ct}, c.\text{ct})) : \text{LocProp} \\ \text{c}_{q1} : \neg\text{satisfy}(c.\text{ct}, \lambda x.\text{if}(a.\text{ct}, x)) \\ \text{c}_{q2} : \text{satisfy}(c, \lambda x.\text{if}(a.\text{ct}, \text{grndble}(x))) \\ \text{QUD} = [?a.\text{ct} \mid \text{rest}] : \text{poset(Question)}\end{array}\right] \\ \text{effects}: & \left[\begin{array}{l}\text{Facts} = \text{pre.Facts} \cup a.\text{ct} \\ \text{LatestMove} = \text{Assert}(c.\text{ct}) : \text{LocProp} \\ \text{QUD} = [?c.\text{ct} \mid \text{pre.QUD.rest}] : \text{poset(Question)}\end{array}\right]\end{array}\right]$$

The speaker has (provisionally) asserted a conditional for which the agent can interpret the *if*-case as making the consequent utterance groundable, guided by the content of the antecedent, as in the mention of speaking in (14). If the antecedent is not the case, there is a problem with the pending utterance.

In accepting the antecedent case, removing it from *QUD* and adding it to *Facts*, the consequent utterance is affirmed as groundable. The consequent itself can now be treated as an ordinary move: the result-state of this rule is similar to one where an assertion equivalent to the consequent had been made, and the active issue is whether to accept it: *is it so that disabled people were treated oddly in those days?*

Having predicated on something other than the content, we can do the same for items with content that cannot be used to compose a conditional. These should be considered in relation to repair behaviours: the *if*-clause flags a potential reparandum within an utterance, which in the non-*if*-clause case cannot or should not be grounded. In (9) the utterance-based questions were divided into two subtypes: those associated with the entire targeted utterance, and those associated with an aspect of the targeted utterance e.g. its phonetic realisation (e.g. *if I'm saying that right*). Here we use an example that does not take issue with a specific aspect of the target word.

(16) there are two principles if you like in the theological field *(F86 211)*

(17)
$$\left[\begin{array}{ll}\text{pre}: & \left[\begin{array}{l}\text{LatestPending} : \textit{pend} \mid \textit{if-cond} \\ \text{c}_q : \text{satisfy}(c, \lambda x.\text{if}(a.\text{ct}, \text{grndble}(x))) \\ \text{QUD} = [?a.\text{ct} \mid \text{rest}] : \text{poset(Question)}\end{array}\right] \\ \text{effects}: & \left[\begin{array}{l}\text{LPend} = \text{pre.LPend.}\textit{pend} \\ \qquad \mid \text{pre.Lpend.}\textit{if-cond.c} : \text{LocProp} \\ \text{Facts} = \text{pre.Facts} \cup a.\text{ct} \\ \text{QUD} = \text{pre.QUD.rest} : \text{poset(Question)}\end{array}\right]\end{array}\right]$$

The previous full-clause case flagged a potential issue with an otherwise standalone utterance: these perform the same function for a sub-utterance. If the flagged element is ungroundable it will require repair. If it is groundable, as here, it can be integrated into the larger utterance as usual, and the flag dismissed.

In the *effects* of both (15) and (17), the *if*-case has been included in the common ground *Facts*. However, in (15) this enables us to recognise that the intended assertion is of the consequent, and its acceptance becomes the active issue. In (17) the utterance is not yet complete: although the pending contribution of the 'conditional' can again be re-evaluated as the consequent only (in this case, incorporating the flagged phrase into the overall pending utterance), a new conversational move has not yet been completed, and there is not yet a new asserted proposition to stage via *QUD*.

3 Conclusion

The most common semantics for conditionals is founded on *if* as restricting the scope of another (potentially covert) operator (Kratzer, 1986). However, we have seen that *if*-clauses may be associated with only a constituent, and a conditional effect introduced by *if* can evidently arise without participating in a process via a main clause.

Although we cannot provide extended discussion, the above provides more motivation for seeking another way to replicate the restrictor theory's advantages. One appeal of the restrictor theory is that it evades proofs by Lewis (1975) showing that one could have a semantics for conditionals that reflects the intuitive (and eventually empirically verified) judgement that a conditional is as probable as its consequent given its antecedent (Stalnaker, 1970), or a semantics whereby conditionals express propositions, but not both. One alternative for avoiding this problem is to take on a trivalent semantics, and although Lewis considered it too extreme a solution, use of a trivalent semantics for conditionals remains an active albeit non-mainstream area. In addition to being interesting in its own right, the phenomenon addressed here hopefully provides food for thought in what a semantics for conditionals needs to accommodate.

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