You can't always want what you want: Understanding Anankastic Conditionals

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1 Introduction

Compare (1) to (2):

(1) If you want to eat sweets, you should think about something else to take your mind off it.
(2) If you want to go to Harlem, you should take the A train.

• (2) informs the hearer that taking the A train is (part of) a way / the best way to satisfy a desire to go to Harlem.

• By contrast, (1) does not inform the hearer that not thinking about quitting his job is (part of) a (good) way to quit his job.

• If we replace should with the stronger must or have to, (2) seems to convey that asking Tom for cream is necessary for satisfying the desire:

(3) If you want to go to Harlem, you have to take the A train.

• (2) and (3) are called Anankastic Conditionals (ACs), after the Greek goddess of necessity, Ananke.

• (1) really seems to be just a regular conditional, on a par with (4) and (5).

(4) If it has been raining, the street will be wet.
(5) If you crave sweets, your blood sugar may be low.

Question:

How different/special are anankastic conditionals?
1.1 Conflicting goals

A striking difference between ACs and regular conditionals:

(6) A: If you want eat sweets, you should think about something else, ....
B: ✓ No, because just **imagining** to eat chocolate makes me happy.

(7) A: If you want to go to Harlem, you should / have to take the A train.
B: ?? No, I should not, because I really want to go to Hoboken, and the A-train does not go there.

→ In evaluating ACs (but not other conditionals), the actual (additional) desires of the agent are ignored **if they are in conflict with satisfying the goal mentioned in the antecedent.**

1.2 Non-conflicting goals

(8) [Scenario: There are two trains to Vladivostok, the Russian and the Chinese. train. The Chinese train is much more comfortable.] If you want to go to Vladivostok, you should / have to take the Chinese train.

→ At the same time, non-conflicting goals are **not** ignored.

1.3 The ‘vacuity’ of want

(9) If you want to go to Vladivostok, you should/have to take the Chinese train.
   ≲ If you go to Vladivostok, you should/have to take the Chinese train.

(10) a. If you want to go to Harlem, you should/have to take the A train.
b. ≲ If you go to Harlem, you should/have to take the A train.

(11) a. If you want to eat sweets, think of something else.
b. ≠ If you eat sweets, think of something else.

Here is what Hare (1968) had to say about a set of examples parallel to (10a) and (11a):

Let us consider the meaning of ‘If you want’ in the two cases. In the ['chocolate'] case, a first approximation would be to say that it means the same as ‘If you, as a matter of psychological fact, have a desire’. I am very much inclined to deny that it means anything like this in the ['go to Harlem'] case.

→ In the case of ACs, **if you want to** seems to mean something like ‘if you plan to act on a desire to …’
In the evaluation of ACs,

- **conflicting goals** that the agent happens to have should be ignored.
- **non-conflicting goals** that the agent happens to have a role should not be ignored.
- ACs are interpreted, in effect, as saying something about the *desired the agent intends to act on*, given the impressions that *want* is vacuous.

## 2 The Anatomy of ACs — and some remarks on previous accounts

**Terminology:**

<table>
<thead>
<tr>
<th>desire predicate</th>
<th>internal antecedent</th>
<th>modal</th>
<th>internal consequent</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you want to</td>
<td>[you] go to Harlem</td>
<td>you have to</td>
<td>[you] take the A train</td>
</tr>
</tbody>
</table>

- Previous accounts have tried to account for the facts about conflicting goals by giving a non-standard semantic analysis of (teleological) modals.
  
  - Sæbø (2001) (and Huitink (2005)) assume that the internal antecedent gets added to the *ordering source* of the modal.
  
  - von Fintel and Iatridou (2005) propose that, in the interpretation of the modal, the goal in the antecedent is treated as a *designated goal*, overriding all others.
  
  - von Stechow, Krasikova and Penka (2006) propose that the modal is, in effect, interpreted as equivalent to counterfactual *would*.

- All of these proposals face a compositionality problem:
  
  - It is fairly standard to assume that the modal combines directly with both the antecedent and the internal consequent.
  
  - However, all the proposals above need the modal to combine with the *internal* antecedent, not the whole one.

- von Fintel and Iatridou (2005)/von Stechow et al. (2006) assume that (teleological) modals have an extra argument, a purpose clause, which is elided in ACs:

  (12) If you want to go to Harlem, you have to take the A train *to go to Harlem*

  - Thus the link between modal and antecedent is anaphoric.

  - In essence, all these accounts try to get *want* out of the way, so that they can predicate a direct relationship between the internal antecedent and the consequent.
3 Reexamining the ‘desire’ predicate

AC-interpretations can also be had with be to, intend to, plan to:

(13)  a. If the unicorn is to recover, we have to feed it Himalayan moss.
     b. If you intend to sell your car, you should advertise on craigslist.
     c. If you plan to sell your car, you should advertise on craigslist.

- AC-interpretations are common with predicates intention/planning.
- In ACs with want, want also seems to be interpreted as intention-like.

3.1 Intentions/Plans vs. Desires

- Intentions and plans are different from mere desires.
- Intentions and plans determine action choices of the agent.
- Hence, intentions and plans, unlike mere desires and inclinations, have to be consistent.
  - An agent (even a rational one) may well, as a matter of psychological fact, desire two incompatible things.
  - E.g., right now, I desire to go home and sleep, and at the same time, I desire to complete this talk.
  - But if an agent is to act, he has to resolve conflicts among his preferences.
- Also, intentions and plans need to take into account a variety of preferential attitudes: Desires, personal moral codes, inclinations, long-term goals, …
- In order to capture the notion of ‘action-relevant preference’, Condoravdi and Lauer (2011) and Condoravdi and Lauer (SynSem Circle, March 2011) propose the notion of an effective preference:
  - An agent has a distinguished, global set of preferences that integrates all his preferential attitudes.
  - Conflicts can be resolved by ranking these preferences.
  - A consistent preference structure is one in which all conflicting goals have been (strictly) ranked.
  - Effective preference structures are required to be consistent in this sense.
We leave it open whether verbs like intend directly predicate something about effective preferences, or about other (consistent) preference structures.

Now on to the case of want:

Proposal: Assume that want is underspecified with respect to the preferential attitude it targets.

- want can be about mere desires (as in the chocolate example).
- want can also be about effective preferences (this is what is the case in ACs).

Independent motivation: As Condoravdi and Lauer (2009) discuss at length, assertions of want sentences can be used with the same range of forces as imperatives:

(14) a. [Mother to child]
    I want you to clean your room before playing. (COMMAND)

b. [Mother to child]
    You do NOT want to touch that cookie! (PROHIBITION/WARNING)

c. [Doctor to patient]
    I want you to take these pills for a week. (ADVICE)

d. [Recipe]
    You want to stir the mixture well. (ADVICE)

e. [Affirming an offer]
    No, really, I want you to take the last cigarette. (INVITATION)

f. [Among collaborators]
    I want you to write this up before our next meeting. (REQUEST)

g. If it is that important to you, I want you to go. (CONCESSION)

Lauer and Condoravdi have argued that, in the case of imperatives, this range of forces can be explained by assuming that imperatives communicate effective preferences.

Thus, assuming that want can be about effective preferences goes a long way to interpret the illocutionary effects of the sentences in (14).

3.2 Conflicting and non-conflicting preferences

Reconsider the Hoboken example:

(15) If you want to go to Harlem, you have to take the A train.
    [Actual fact: Speaker wants/intends to go to Hoboken.]

- Not a problem:
- In interpreting the conditional, we hypothetically assume that the antecedent is true.
- If we hypothetically assume that the speaker effectively prefers (intends, plans) to go to Harlem, making this supposition means suspending his actual goal of going to Hoboken (or at least, to hypothetically demote it to be less important).

And in the Vladivostok example:

(16) If you want to go to Vladivostok, you have to take the Chinese train.

- There is no reason to demote (or suspend) the addressee's preference for traveling comfortably (if possible) in order to accommodate the assumption that he goes to Vladivostok.

The differential behavior of conflicting and non-conflicting goals follows simply from the way we interpret conditional sentences.
4 A formal problem

4.1 Quick Recap: Kratzer’s (1981) doubly-relative analysis of modals

- Modals are analyzed as quantifiers over possible worlds, e.g.

  (17) In view of what we know, John must be in his office.
  \[ \simeq \text{In all possible worlds } w \text{ compatible with what we know, John is in his office at } w. \]

- Modals have two parameters:
  - A function \( f : W \to \wp(W) \), the modal base.
  - A function \( g : W \to \wp(W) \), the ordering source.

We then can state proposition expressed by a modal necessity statement as follows:

\[
\begin{align*}
Best_{g,w}(F) &= \{ w \in F \mid \nexists v : w \leq_g v \} \\
\text{must}_{f,g}(\phi) &= \{ w \mid \forall v \in Best_{g,w}(\bigcap f(w)) : v \in \phi \}
\end{align*}
\]

- The modal base specifies a set of background facts that are held constant in the interpretation of the modal.

- The ordering source imposes an ordering of the worlds picked out by the modal base, according to some ideal (lawfulness, ethics, desires, normalcy . . . ).

- must simply says that its complement is true in all the best worlds according to this ordering.

4.2 Conditionals

- Conditionals are treated as always containing a modal (which sometimes will be implicit).

- We do not look at all worlds determined by the modal base anymore, but rather only those in which the antecedent is true.

(18) If Peter did not declare the donation, he has to pay a fine.
\[ \text{Must}_{f,g}[^{\neg \text{Peter did not declare the donation}}[^{\text{Peter pays a fine}}] \]

\( f \): The relevant circumstances
\( g \): What the law provides

“In the worlds best satisfying the law among those in which the relevant facts are true and John did not declare the donation, he pays a fine.”

Algorithmicly:
- Collect all worlds in which the relevant circumstances hold
- Throw aways all those worlds in which Peter has reported the donation.
- Pick the best worlds from the remaining ones.
- Check if in all these worlds, Peter pays a fine.

Another way to describe this:

In order to evaluate whether If \( \phi \), must \( \psi \) is true, add \( \phi \) to the modal base of must, then proceed as before.

4.3 **Bad news: Applying the analysis to ACs**

(19) If you want to go to Harlem, you have to take the A train.

- Let us suppose
  - \( f \) = the relevant circumstances (including facts about public transportation)
  - \( g \) = what the addressee effectively prefers

Algorithmicly:

- Collect all worlds in which the relevant circumstances hold.
- Throw aways all those worlds in which the addressee does not effectively prefer to go to Harlem.
- Pick the worlds that best satisfy the addressee’s desire from the remaining ones.
- Check if in all these worlds, the addressee takes the A train.

- But that is not what we are interested in: The question is not, ‘Among all the wanting-to-go-to-Harlem worlds, which one best satisfy the addressees desire?’.

- Rather, we want to know: ‘Which worlds best satisfy the desires of the addressee, including the hypothetical goal of going to Harlem’?
4.4 A general problem for interpreting root modals

- Frank (1997) argues that root modals generally have ‘double modal’ structure (as schematized in (20b)), motivated by examples like (20a):

\[(20) \quad \begin{align*}
\text{a.} & \quad \text{If jaywalking is illegal here, this dude has to pay a fine.} \\
\text{b.} & \quad \text{Nec [jaywalking is illegal here] [Must [] [This guy pays a fine].]}
\end{align*}\]

- Note that this is exactly the problem that we have with the Harlem sentence:
  - In both cases, we really want to hypothetically add something to the ordering source, rather than the modal base.
  - Thus we may assume the same solution for ACs:

\[(21) \quad \begin{align*}
\text{a.} & \quad \text{If you want to go to Harlem, you have to take the A train.} \\
\text{b.} & \quad \text{Nec [you want to go to Harlem] [Must [] [you take the A train]]}
\end{align*}\]

- That is, we first travel to wanting to go to Harlem worlds, and then evaluate the claim that you have to take the A train is true there.

- The problem of how to get hypotheses about the ordering source to interact with the modal in the right way is a general one for a Kratzerian analyses of modality and conditionals.
- It has a (fairly) straightforward solution.
5 What is Anankasticity?

Sæbø (2001), who brought the issue of ACs to the attention of modern semanticists, described the problem as follows:

- How can a sentence of the form If desire(p), must q come to be interpreted as p is necessary for q?

Quite generally, this has led to a general outlook on the problem that focussed on conditionals in which the must is interpreted teleologically.

- In these cases, the resulting interpretation says that the ‘internal consequent’ is (part of) a (n optimal) way to achieve the goal named in the antecedent.

However, there are many sentences that share certain properties with ACs (and hence pose the same problems), for which this is not true.

5.1 Deontic consequences

- Fernando (2005, p. 72) gives the example in (22), relative to a scenario where no-one is ever allowed to leave Harlem once he has gone there.

- He contrasts with (23), saying ‘As an anankastic conditional, [(22) ] should be no truer than [(23) ]’:

  (22) If you want to go to Harlem, you must die in Harlem.
  (23) If you want to go to Harlem, you must see the Apollo theatre.

- However, it seems that (22) can be true (?) and appropriate in such a scenario.

- True, it is not the case that ‘that dying in Harlem is part of a way of getting to Harlem’.

- However, (22) shares with uncontroversial ACs that the want in the antecedent is somehow ‘empty’:

  (24) If you go to Harlem, you must die in Harlem.
  ≈ (22)

- So we have two properties as candidates for the deciding feature of anankasticity:

  (i) Prejacent of the modal in the consequent is interpreted as a means to achieve the prejacent of want in the antecedent.
  (ii) want is somehow ‘empty’, or does not make its usual contribution.

(23) only meets (ii), while uncontroversial ACs meet both.
Extant account generally try to predict both properties as arising from the same source.

- "The modal in the consequent is teleological / bouletic, and hence it interacts with the desire predicate in the antecedent in the following way . . ."

- But sentences like (23) show that this is the wrong strategy: Certainly, it seems to share with ACs the property that the antecedent is interpreted as 'if you want to go to Harlem, and you act on your desire, . . .'

- On the account suggested here, we can analyze (22) as simply the combination of 'effective preference'-want with a deontic modal in the consequent.

One of the hallmarks of anankasticity, the 'vacuity' of want is shared by sentences with non-teleological modals in the consequent.

5.2 Prerequisites that are not in the control of the agent

Consider:

(25) If you want to get a drivers license, you have to be at least 16 years old.
     (from von Stechow et al. (2006))

(26) If you want to become president of the U.S.A., you have to be a natural born citizen.

- As in ACs, in (25), it is not actually a consequence of the desire to have a drivers license that you need to be 16 years old.

- That is, it is perfectly legal to be 15 and desiring to have a drivers license.

- Again, want is interpreted, here, as if you desire to have a drivers license, and you intend to act on it . . .

Again, we have a case in which we have a non-teleological modal in the consequent, in which the want in the antecedent is 'vacuous'.

5.3 Non-conditionals with anankastic interpretations

It has been widely noted that ACs usually are near-equivalent to purpose constructions:

(27) If you want to go to Harlem, you have to / should take the A train.
     ≃ In order to go to Harlem, you should take the A train.
But there are other constructions that get identical readings, e.g. the following German saying (again from von Stechow et al. (2006)):

(28) Wer schön sein will, muss leiden.
    Who pretty be wants, must suffer.
    ‘(S)he who wants to be pretty has to suffer.’

Any solution for the problem of ACs should not depend on idiosyncratic properties of conditionals.

6 Conclusion

- Understanding the interpretation of ACs requires examination of the ‘desire predicate’ in the antecedent.

- Analyzing these desire predicates as saying something about action-relevant preferences (which have to be consistent) directly accounts for the differential behavior of ACs with respect to conflicting and non-conflicting goals.

- Further exploration of the data shows that at least some properties of ACs cannot be due to special features of teleological modality.

- A general moral: Focusing on a particular part of a phenomenon, without having a clear notion about how this phenomenon is delineated (and how it relates to similar ones) can easily obscure facts that guide you to a proper solution.
7 Open issues

7.1 must vs. should

- ACs come in two varieties: Those with must and those with should.

- It is obvious that non-conflicting goals generally play a role in the evaluation of should-ACs.

- But judgements are more varied in the case of must-ACs.

The Ruud van Nistelrooij scenario

- Imagine you are (J. Huitink and hence) infatuated with Dutch soccer star Ruud van Nistelrooij.

- There are two trains that bring you to Harlem: The A train and the C train.

- van Nistelrooij often travels on the A train.

- At least to some people, (29) should come out false in this scenario, as there is another way to go to Harlem.

(29) If you want to go to Harlem, you have to take the A train.

- In the Ruud van Nistelrooij scenario, (30) seems to be uncontroversially true:

(30) If you want to go to Harlem, you should/ought to take the A train.

- What ACs with should/ought to seem to convey is that the best way with respect to the agent’s overall goals is the way described in the consequent.

- ACs with must/have to, on the other hand, seem to convey that it is the only way.

- Except maybe not: Reconsider the Vladivostok example: To the ears of many speakers, (31) can be true even if there is the terribly uncomfortable Russion train going to Vladivostok.

(31) If you want to go to Vladivostok, you have to take the Chinese train.

- These examples tend to get better if the goal/preference validating them is made highly salient:

(32) I know you cannot bear traveling uncomfortably, so if you want to go to Vladivostok, you have to take the Chinese train.
Upshot: With *must*, but not with *should*, only highly salient goals are taken into account.

The problem of how *should* differs from *must* is a general problem for the analysis of modals. Most likely, ACs do not pose any special problems here.

### 7.2 Possibility ACs

(33) If you want to go to Harlem, you can take the A train.

\[ \approx \text{You can take the A train to go to Harlem.} \]
\[ \Rightarrow \text{If you take the A train, you go to Harlem.} \]
\[ \Rightarrow \text{If you take the A train you can/might go to Harlem.} \]

Nissenbaum (2005) offers the label *eparkastic conditionals* for those, because he thinks they express sufficient conditions. I think this is doubtful:

(34) [Sven and Cleo have agreed to meet at 5. Sven’s favorite yoga class starts at 6. They never meet for less than two hours. Laura knows all this.]

Laura: If you want to go to yoga, you can/could ask Cleo to meet earlier.

- (34) does not entail that if Sven asks, he will be able to go to yoga.
- Rather, it entails that if Sven asks, he might be able to go to yoga.
- This is fortunate, for a standard analysis of *can* (as an existential quantifier over optimal worlds) will only yield this weaker entailment.

### 7.3 Sufficiency modal constructions

These are conditionals that look like ACs, but do have an *only* in the consequent:

(35) If you want to buy good cheese, you only have to go to North End.

\[ \approx \text{To buy good cheese, you only have to go to the North End.} \]
\[ \Rightarrow \text{Going to North End will enable you to by good cheese, and it is a comparatively easy way.} \]

- As Franke points out, with a scalar analysis of *only*, these examples are not necessarily particularly puzzling.
7.4 The nature of the ‘outer conditional’

Recall that we proposed that ACs (and root modals in general) have a ‘double conditional structure’ (or something equivalent):

(36) NEC [you want to go to Harlem] [MUST [] [you take the A train]]

- An open question: What is the nature of NEC?
- von Fintel and Iatridou (2005), who consider a double modal analysis, suggest it might be a counterfactual-style similarity modal (though without the presupposition that the antecedent does not hold).
- This seems wrong: Like all indicative conditionals, ACs require that the antecedent be contingent (in the common ground, or the speaker’s epistemic state):
  - Suppose that the speaker knows that the addressee wants to go to Hoboken.
  - Then he cannot say (37):

(37) If you want to go to Harlem, you have to take the A train.

- Instead, he has to use the counterfactual version (38):

(38) If you wanted to go to Harlem, you would have to take the A train.

Take home message

- Anankastic conditionals are not particularly strange or special.
- Hence, their existence does not warrant particularly desperate moves to capture their interpretation.
- Accounting for them does, however, require careful consideration of the various bits and pieces that are at work in them.
- But all these bits and pieces do function similarly outside of anankastic conditionals.
References


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