A Unified Analysis of Indicative and Biscuit Conditionals as Topics

We provide a unified treatment of indicative and biscuit conditionals on the basis of their status as sentence topics. We show syntactic similarities of the two types of conditionals to two variants of topicality. By extending the approach of topic interpretation of Endriss (to appear) and combining it with the approach to conditionals of Schlenker (2004), we derive the correct semantic and pragmatic contributions of these conditionals.

1. Indicative and Biscuit Conditionals. (1) illustrates two commonly investigated types of conditionals, namely indicative conditionals (IC, 1a) and biscuit conditionals (BC, 1b).

(1) a. *If Peter went shopping, then there is pizza in the fridge.*
b. *If you are hungry, there is pizza in the fridge.*

Two decisive characteristics of BCs are the following: (1) unlike ICs, the *truth* of the consequent is independent of the truth of the antecedent. (2) the antecedent states under which conditions the consequent is *relevant*. DeRose & Grandy (1999) and Siegel (2006) propose to analyze BCs as *conditional assertions* and existential quantification over *potential literal acts*, respectively. However, these proposals are too weak: after the utterance of a BC, the speech act pertaining to the consequent has been performed, irrespective of the truth of the antecedent.

(2) a. *If you don't want to watch the movie, the gardener is the killer.*
b. *If the congregation is ready, I hereby declare you man and wife.*

No matter whether the listener wants to watch the movie, the speaker spoiled it with uttering (2a) by asserting who the killer is. Likewise, the declaration happened in case of (2b) independent of the readiness of the congregation.

2. Conditionals and Topic Marking Constructions. That there is a close connection of conditionals and the information structural notion of topicality has been noted at various places already (see e.g. Haiman, 1978 and Bittner, 2001). We want to point out similarities of ICs (with *then*)/BCs and two variants of topicality, namely *aboutness topicality* and *frame setting*. Frey (2004) discusses two particular instances of these two forms of topicality in German, namely German left dislocation (GLD, 3a) and Hanging Topic left dislocation (HTLD, 3b)[1].

(3) a. Den Pfarrer, den kann keiner leiden.
the-ACC pastor, RP can nobody like
'The pastor nobody likes.'
b. Der Pfarrer, keiner kann ihn leiden.
the-NOM pastor, nobody can him like
'The pastor, nobody likes him.'

GLD is a mark for *aboutness topicality*, establishing the entity the sentence is about, whereas HTLD is an instance of *frame setting*, establishing a frame of interpretation for which the following material is relevant, just like more general frame setting constructions as the following:

(4) *As for the pastor, the marriage sermon was wonderful.*

The content of the matrix clause is implied to be relevant w.r.t. (questions regarding) the pastor. Frey (2004) notes that the following syntactic characteristics set apart GLD and HTLD: (1) GLD requires the presence of a resumptive weak *d*-pronoun (e.g. *den*), and (2) GLD, but not HTLD, allows for binding into the dislocated phrase from within the clause. We find the same characteristics w.r.t. the distinction of ICs and BCs: (1) ICs are similar to correlative constructions, where a free relative clause is adjoined to the matrix clause that contains a coindexed proform. In case of ICs, *then* has be argued to be such a proform (cf. Bhatt and Pancheva, 2006; Bittner, 2001, Iatridou, 1994). (2) Binding into the *if*-clause is possible for ICs, but not for BCs:

(5) (IC) *If John took good care of it$_i$, then every$_i$ vase is valuable.*
(BC) **If you want to know something about it$_i$, every$_i$ vase is valuable.*

This shows that ICs with *then* pattern with aboutness topic constructions and BCs with frame setting constructions.

3. A Unified Analysis. Endriss (to appear) argues that topics must be interpreted in a separate speech of *topic establishment*, resembling an act of *referring* (cf. Searle, 1969; Jacobs, 1984). This act crucially must be performed *before* the speech act of the original utterance. For instance, an assertion of the GLD example in (3a) would come out as follows

[1] RP stands for 'resumptive pronoun'.

(6) $\mathsf{REF}_d(\iota x[\mathsf{pastor}(x)]) \quad \& \quad \mathsf{ASSERT}(\neg\exists y[\mathsf{like}(y,d)])$

The act of topic establishment REF introduces a discourse referent (here: d) for the topic marked constituent (here: the pastor) and is conjoined (via speech act conjunction $\&$) to the original speech act. Crucially, the weak *d*-pronoun *den* in (3a) is interpreted as the topic discourse referent. Hence the case of aboutness topicality corresponds to a simple relation of *predication*, where the comment can be regarded as a predicate $\lambda x[\neg\exists y[\mathsf{like}(y,x)]$ of the topic[2] d. We propose to extend this mechanism to handle cases of frame setting as well. Consider (3b):

(7) $\mathsf{REF}_d(\iota x[\mathsf{pastor}(x)]) \quad \& \quad \mathsf{ASSERT}(\neg\exists y[\mathsf{like}(y,z)])$

Instead of a proform necessarily related to the topic, the matrix clause contains the pronoun *him*, which is interpreted by a free variable z (possibly resolved to d). Hence the case of frame setting does not correspond to a predicative relation of comment and topic, but to a discoursive relation of the act of topic establishment and the assertion. This is even clearer with (4):

(8) $\mathsf{REF}_d(\iota x[\mathsf{pastor}(x)]) \quad \& \quad \mathsf{ASSERT}(\mathsf{wonderful}(\mathsf{marriage_sermon}))$

The only connection of topic and comment is via their consecutive performance as speech acts. At this point the issue of relevance comes in: on standard Gricean assumptions an assertion is only felicitous if it is relevant to the preceding discourse. In (8) the immediately preceding discourse developed by establishing the pastor as topic. The following assertion is felicitous only if it is relevant for (questions regarding) the pastor. In case of aboutness topicality this relevance condition is trivially fulfilled, because a predication is obviously relevant to its argument.

We can now straightforwardly account for ICs and BCs. We adopt the approach of Schlenker (2004), who analyzes *if*-clauses as definite descriptions over possible worlds, such that the first clause of (1a) is interpreted as the (unique) possible world which is most similar to the actual world among all worlds where *Peter went shopping* is true[3]. The entire conditional is then considered true if this world is among the worlds where the consequent is true. In Section 2. we have noted that ICs parallel GLD/aboutness topic constructions. An analysis of (1a) analogous to (6) yields the following result[4]:

(9) $\mathsf{REF}_d(\iota_{w_0} w[\mathsf{shop}(\mathsf{peter},w)]) \quad \& \quad \mathsf{ASSERT}(\mathsf{pizza_in_fridge}(d))$

The act of topic establishment introduces a discourse referent for the topic marked constituent (here: the selected world mentioned above) and is conjoined to the original speech act. Crucially, *then* is interpreted as a world pronoun, namely the topic discourse referent. Again, this is a case of predication and hence the relevance requirement is trivially fulfilled. In contrast, our analysis of (1b) yields the following result:

(10) $\mathsf{REF}_d(\iota_{w_0} w[\mathsf{hungry}(\mathsf{listener},w)]) \quad \& \quad \mathsf{ASSERT}(\mathsf{pizza_in_fridge}(w_0))$

As the matrix clause does not contain any proform relating to the topical component, the content of the comment assertion is evaluated in the actual world of utterance per default. Hence the assertion is about the existence of pizza in the fridge in the actual world. Note that this act is performed unconditionally, which is exactly what we observed for BCs. Secondly, the relevance requirement comes down to the requirement that the assertion of there pizza being in the fridge is relevant to the act of establishing the situations where the listener is hungry as conversation topic. Again, this is exactly the observed relevance implicature for BCs.

Selected References. M. Bittner (2001). Topical Referents for Individuals and Possibilities. *Proceedings from SALT XI* • C. Endriss (to appear). Quantificational Topics, *Studies in Linguistics and Philosophy*, Springer • W. Frey (2004). Notes on the Syntax and the Pragmatics of German Left Dislocation. In: *The Syntax and Semantics of the Left Periphery* • J. Jacobs (1984). Funktionale Satzperspektive und Illokutionssemantik. *Linguistische Berichte* 91 • P. Schlenker (2004). Conditionals as Definite Descriptions, *RoLC* 2

[2]Here, topic interpretation has no truth-conditional effect, but when the topical constituent is an indefinite and the comment contains scope operators, (exceptional) wide scope readings are derived (cf. Endriss, to appear).

[3]The subscript at the ι indicates the world of evaluation w.r.t. which 'similarity' is measured. We ignore the issue of plurality necessary for cases of quantification over possible worlds here.

[4]Again, topic interpretation has no truth-conditional effect.