

CHAPTER 5:

Tense in Conditional Constructions

5.0 Introduction

This chapter examines the behavior of tense in the protasis ('if clause') and apodosis ('then clause') of hypothetical and counterfactual conditional constructions. This chapter presents a mental space analysis of tense in conditional constructions which provides an account of the various temporal interpretations available for tense in the protasis, the subtle semantic behavior of tense in the apodosis, and the allowed and disallowed protasis-apodosis tense combinations. The analysis of conditionals presented here will be contrasted with the analyses of Fillmore (1990) and in particular, Sweetser (1990, to appear).

The structure of this chapter is as follows: Section 5.1 lays out the challenges presented by tense in conditional constructions and gives an overview of the analysis to be presented here. Sections 5.2 and 5.3 provide background notions. Section 5.2 defines three different classes of conditional constructions: content level, epistemic, and speech act (Sweetser 1990). Section 5.3 discusses the notion of 'epistemic stance' (Fillmore 1990). Section 5.4 examines the mapping properties of the conditional space structures and the effect on the behavior of tense in the apodosis. Section 5.5 investigates the embedding structure of hypothetical constructions with PRESENT protases. Section 5.6 investigates the embedding structure and the behavior of tense behavior in conditional constructions with Simple Past protases. Section 5.7 investigates the embedding structure and the behavior of tense in conditional constructions with Pluperfect protases. Section

5.8 examines use of the 'will' Future in the protasis. The chapter concludes with section 5.9.

5.1 Problems Posed by Tense in Conditional Constructions

Tense in conditional constructions poses a number of interesting and challenging problems for tense theory. First, as is widely noted, the temporal interpretation of tense in the protasis is often not the canonical value of the tense marker in question. Consider for example the interpretation of the Simple Present in (5.1) and the Simple Past in (5.2):

- (5.1) a. If John is in town (now), then Mary will want to see him.
 b. If President Clinton vetoes the bill (tomorrow), the Republicans will be furious.
- (5.2) a. If the Republicans passed the bill (yesterday), then President Clinton will veto it.
 b. If I had more time (now), I would go to the beach.
 c. If President Clinton vetoed the bill (tomorrow), the Republicans would be furious.

The Simple Present may be used with a present (5.1a) or future (5.1b) temporal interpretation. The Simple Past may be used with a past (5.2a), present (5.2b), or future (5.2c) interpretation.

While the Simple Present or the Simple Past may occur in the protasis with a future interpretation, as in (5.1b) and (5.2c), the Simple Future is typically disallowed, as

shown by the unacceptability of (5.3)

(5.3) * If President Clinton will veto the bill, the Republicans will be furious.

The phenomenon in (5.1) through (5.3) are not accounted for under the standard analysis where tense marks the relationship between time of event and time of speech.

A second problem presented by tense in conditional constructions is the cooccurrence restrictions on possible protasis-apodosis tense combinations. Standard grammars prescribe the following allowable tense combinations: if the protasis is Present, the apodosis is Future; if the protasis is Simple Past, the apodosis is Conditional Present; and if the protasis is Past Perfect, the apodosis is Conditional Past. In fact many other tense combinations which first appear bizarre are actually possible given a proper context or situation. Some tense combinations, however, are not possible.

- (5.4) a. * If she were here, they'll be happy.
 b. * If Jack came tomorrow, Jill is happy.
 c. * If she has the baby in June, she would get pregnant after the wedding.

A third more subtle problem presented by tense in the conditional construction is the temporal interpretation associated with the apodosis. Consider for example the interpretation of the apodosis in (5.5).

- (5.5) a. If it rains tomorrow, I will buy an umbrella.
 b. If she calls me tonight, (it's because) she is bored.
 (She always calls me when she is bored).

- c. If she calls her therapist tomorrow, then (that means) she broke up with her boyfriend.

Although in many instances tense in the apodosis is anchored to 'now', to the V-POINT of speaker reality, this is not always the case. In (5.5a), 'I will buy an umbrella' can be interpreted as future in relation to the hypothetical event 'it rains'. If indeed it rains tomorrow, the 'I will buy an umbrella' may be interpreted as future in relation to tomorrow when it starts to rain. The apodosis cannot, however, be interpreted as a future prediction in relation to now. In (5.5b), 'she is bored' can be interpreted as present in relation to the time of calling tonight, either in the hypothetical domain or the domain of reality. The apodosis 'she is bored' does not indicate that she is bored 'now'; the Simple Present is not anchored to the V-POINT of speaker reality. The apodosis only indicates that she is bored at the time of calling. She may in fact be bored now, but we can only draw this conclusion from inferences and other information. In (5.5c), 'she broke up' is past in relation to the time of calling tomorrow, either in the hypothetical domain or the domain of reality. The break up may also be prior to now, but it does not have to be. The break up may occur tonight, for example, between now and the phone call tomorrow, in which case it cannot be interpreted as past in relation to 'now'. In all of these cases, tense in the apodosis does not anchor to speech time, but rather, it anchors to the future time of calling, either in the hypothetical domain or the domain of speaker reality.

Under the analysis presented in chapter 4, conditional constructions set up a hypothetical domain, a configuration of spaces which is a kind of informational frame with mapping potential. The protasis defines the matching conditions under which the apodosis may optimize and map onto speaker reality. It was argued that Simple Present protasis was appropriate with a future interpretation because the PRESENT allows the

future (i.e. non-prior to BASE) event to be construed as a FACT rather than PREDICTION. The Simple Past with a present or future interpretation was analyzed as setting up a special type of hypothetical space, a counterfactual space, which has special properties. It was argued that the PAST in counterfactual constructions functions to block optimization of the apodosis by setting up a space with matching conditions which cannot be met in the "reality" domain.

This chapter will investigate conditional constructions in greater detail. We will look at 'will' Future protases, as well as Simple Past and Pluperfect protases in more detail. This chapter will also investigate the behavior of tense in the apodosis, and the restrictions on protasis-apodosis tense combinations. I will show how the analysis of conditional constructions as setting up a mapping potential allows us to account for subtle semantic effects of tense in the apodosis. I will argue that the PAST functions in the counterfactual domain not only to block optimization, but also to limit the type of apodosis which may be embedded within that counterfactual domain. This analysis captures in a formal way the claim of Fillmore (1990), that tense in the apodosis must have a unified epistemic stance. The account presented here also accounts for certain allowable tense combinations ruled out in Fillmore's analysis.

The analysis to be presented here is similar in spirit to that of Sweetser (to appear), but completely different in detail. In a mental space analysis of conditional constructions, Sweetser (to appear) analyzes conditional constructions as setting up two spaces, a space for the protasis and an embedded space for the apodosis. She makes the claim that content level, epistemic and speech act conditionals have a different conditional relationship and hence a different link, a different mental space embedding structure,

between the space set up for the apodosis and the space set up for the protasis.⁸⁷ The "normal" tense restrictions, the familiar prescriptive grammar rules for conditionals, apply only to content level conditionals. Sweetser claims that the relaxation of "normal" tense restrictions in epistemic and speech act conditionals is a result of the different embedding structure, the looser link between the space set up for the protasis and the embedded space set up for the apodosis.

In the analysis presented in this chapter, conditional constructions may set up a much more complex configuration of spaces. I claim that where the protasis is Simple Present (PRESENT) all conditional constructions, be they content, epistemic or speech act, have the same embedding structure. With a PRESENT protasis all tense combinations are possible, given a semantically and pragmatically felicitous context. Simple Past (PAST) and Pluperfect (PAST PERFECT or PAST PAST) protases are divided into two categories: hypotheticals and counterfactuals. For hypotheticals, content level conditionals may have a slightly different embedding structure than epistemics or speech act conditionals, however, this does not affect the possible tense combinations available for the PAST hypothetical protases. All tense combinations are possible given a semantically and pragmatically felicitous context. In Simple Past and Pluperfect counterfactuals, however, the structure set up by the conditional is distinct. The counterfactual domain has special properties which not only block optimization, but also limit the type of apodosis structure which can be embedded in the counterfactual domain.

The formulation used here for describing the space embedding is quite different

⁸⁷ Sweetser (1990) demonstrates that conditionality operates in three domains: on the content level, in the epistemic domain, and in the domain of speech acts. The conditional relationship in each of these domains is different. These types of conditionals will be discussed in a moment.

from Sweetser's approach, which proposes a space for the apodosis and a space for the protasis. The method of handling conditionals proposed here is also significantly different from Fauconnier (1985), who proposes that the entire 'if ___ then ___' construction structures a single space. As will be seen in the discussion that follows, the formalism for handling tense developed in this dissertation provides a more refined set of tools for the description and analysis of the structural properties of conditional constructions, function and behavior of tense in those constructions and the nature of space embeddings for subordinate clauses.

Before turning to the analysis of conditional constructions, we will begin in the following two sections by laying out notions which will be important to the discussion that follows: the notions of content, epistemic, and speech act conditionals (Sweetser 1990, to appear) and the notion of 'epistemic stance' (Fillmore 1990).

5.2 Conditionality in Three Domains

Sweetser 1990 makes the claim that conditionality operates in three separate domains: content, epistemic, and speech act.

Content level conditionals, such as examples (5.6), are the most familiar type of conditional construction.

- (5.6) a. If Mary goes, John will go.
b. If you get me coffee, I'll give you a cookie.
c. If you got some coffee, I'd give you a cookie.

In prescriptive grammars, the rules for conditional tense agreement are rules for content level conditionals. In the content level conditionals, the "conditional if-then conjunction indicates that the realization of the event or state of affairs described in the protasis is a sufficient condition for the realization of the event or state of affairs described in the apodosis" (Sweetser 1990:114). In content level conditionals, one act is dependent on another.

In epistemic conditionals, the "conditional if-then conjunction expresses the idea that the knowledge of the truth of the hypothetical premise expressed in the protasis would be a sufficient condition for concluding the truth of the proposition expressed in the apodosis" (Sweetser 1990:116). Some examples from Sweetser are given below:

- (5.7) a. If she's divorced, (then) she's been married.
 b. If John went to that party, (then) he was trying to infuriate Miriam.

In epistemic conditionals, the conditional relationship is between knowledge and a conclusion ('if I know X, then I can conclude Y'). For example (5.7a), if we know that she is divorced, when can conclude that she has been married. For example (5.7b), if we know that John went to the party, given what we know about John, then we conclude that he went in order to infuriate Miriam. In epistemic conditionals, since realization of one event is not conditioned on another, a much freer set of tense combinations may appear.

The third class of conditional constructions is conditioned speech acts. Some examples, taken from Sweetser (to appear, 1990), are given in (5.8).

- (5.8) a. If you need help, my name is Chris.
 b. If it's not rude to ask, what made you decide to leave IBM?

In speech act conditionals, "the performance of a speech act represented in the apodosis is conditional on the fulfillment of the state described in the protasis (the state in the protasis enables or causes the following speech act) (Sweetser 1990:118). So for (5.8a), the speech act of giving information is conditioned on the hypothetical FACT 'you need help' set up in the protasis. In (5.8b), the performance of the speech act of asking the question is conditioned on the hypothetical FACT 'it's not rude to ask'.

5.3 Epistemic Stance

In order to describe the behavior of tense, we will use the notion of 'epistemic stance' (Fillmore 1990). Fillmore defines epistemic stance as the speaker's assumption about the actuality of the protasis, (P). Epistemic stance is the "epistemic relationship which the speaker has to the world represented by the conditional sentence: the speaker might regard it as the actual world, might regard it as distinct from the actual world, or might not know whether the alternative world represented in the conditional sentences is the actual world or not" (Fillmore 1990:142). In Sweetser's terms (Sweetser to appear), epistemic stance is the speaker's mental association with or disassociation from the world of the protasis (P).

Three types of epistemic stance will concern us here: 1) Actual/ Assumed: the speaker identifies with P as a description of the real state of affairs; 2) Hypothetical: the speaker does not identify with P or with \sim P; 3) Counterfactual: the speaker identifies with

\sim P instead of with P.⁸⁸ These three stances are exemplified in (5.9) taken from Sweetser (to appear).

- (5.9) a. If he's (so) hungry (as you say he is), he'll want a second helping.
 b. (I don't know, but) if he's hungry, he'll want a second helping.
 c. If he were hungry, he'd want a second helping.

In (5.9a) the speaker identifies with the protasis as true. The epistemic stance is actual or assumed (P). In (5.9b), the speaker does not identify with the protasis as either true or untrue. The epistemic stance is hypothetical (P or \sim P). In (5.9c), the speaker identifies with the protasis as not true. The epistemic stance is counterfactual or counter to expectation (\sim P).

Fillmore makes the claim that epistemic stance taken towards an utterance may be marked by the tense choice. He also makes the claim that the epistemic stance of the two linked clauses must be identical. This constraint on the concord of epistemic stance accounts for the starred examples (5.4) repeated here as (5.10).

- (5.10) a. * If she were here, they'll be happy.
 b. * If Jack came tomorrow, Jill is happy.

These examples are ruled out because they have a 'non-unified epistemic stance': the protasis has a counterfactual stance, while the apodosis has a hypothetical stance.

⁸⁸ Fillmore mentions a fourth type of epistemic stance, a generic stance, for examples such as 'If he says no, she says no' and 'If she says no, he says no'. We will not use this distinction here.

For the purposes of this paper, we will distinguish between the notion of epistemic stance of the protasis in two senses: clause internal epistemic stance, what is marked linguistically in the basic protasis clause by the verb choice and temporal adverbs; and clause external epistemic stance, what is indicated by all other lexical, pragmatic, and contextual information we have about the epistemic stance the speaker actually takes towards the protasis. In example (5.9a), for example, the clause internal epistemic stance is indicated by 'if he's hungry'; the internal epistemic stance is hypothetical. The clause external parenthetical ('as you say he is') is part of the information which may mark epistemic stance but which is external to the clause. The clause external epistemic stance indicates a stronger identification with the actual truth of the protasis (P). Of course, what the speaker really believes in relation to the utterance may be completely different from what is encoded. For example, if we embed (5.9a) in a sarcastic context 'If he's so hungry (as you say he is), he'll want a second helping. But look, he hasn't even finished what is on his plate', then we may infer that the speaker's real stance towards the protasis is (\sim P), although the clause internal stance is hypothetical, and the additional lexical material indicates a stance of (P).

Where the protasis is in the Simple Present (PRESENT) or the Future, the internal epistemic stance is hypothetical, as in (5.11a) and (5.11b) below.

- (5.11) a. If he's hungry, he'll ask for a second helping.
 b. If it will bother you, I won't open the window.

With the Simple Past (PAST), the internal epistemic stance is hypothetical in reference to a past domain (5.12a) and counterfactual in reference to a present or future domain (5.12b).

- (5.12) a. If Jack bought an expensive car (yesterday), his wife will kill him.
 b. If Jack bought an expensive car (now/tomorrow), his wife would kill him.

Examples such as (5.12a) will be referred to as PAST hypotheticals. Examples such as (5.12b) will be referred to as counterfactuals.

With the Pluperfect (PAST PERFECT or PAST of PAST), the internal epistemic stance is hypothetical in reference to a PAST PERFECT or PAST of PAST domain, a domain of two spaces, one prior to the other and both prior to BASE, as in (5.13a). In reference to a present or future domain, the internal epistemic stance is counterfactual, as in (5.13b). In reference to a plain past domain with only one PAST space, the epistemic stance is counterfactual, as in (5.13c).

- (5.13) a. If she had opened the window (before she got captured), then they'll escape.
 (from Fillmore 1990)
 b. If George had come now/tomorrow, Phyllis would have been pleased.
 c. If she had had time yesterday, she would have called.

Note that the hypothetical reading in (5.13a) requires a context to set up a V-POINT which allows the Pluperfect to be pragmatically felicitous, to make sense. Note also that where the protasis refers to a simple past domain, as in (5.13c) it is often extremely difficult to determine whether the meaning of the Pluperfect is a PAST PERFECT/PAST of PAST hypothetical (5.13a), or a simple past counterfactual. In many cases, the Pluperfect is ambiguous and may result in more than one possible type of space configuration.

Having laid out the notions of epistemic stance and the three domains of conditionality, content level, epistemic, and speech act, we turn now to a discussion of the function of and mapping potential of the space configurations set up for the interpretation of conditional constructions.

5.4 Conditional Constructions, Hypothetical Realities, and Mapping Potential

This section shows how conditional constructions set up a space configuration which serves as a kind of informational frame with mapping potential, and how this analysis allows us to account for subtle semantic effects of tense in the apodosis.

A hypothetical conditional construction sets up a domain of spaces which represents a hypothetical "reality", separated from speaker reality by the space builder 'if'. The hypothetical reality has the same temporal properties as the domain of "reality"; it has a past, present, and a future. The domain of spaces in the hypothetical "reality" have the same spatio-temporal properties as spaces in the "reality" domain. Hypothetical spaces are built, structured, and organized according to the same principles, notions, and constraints as ordinary spaces in the "reality" domain.

The complex space configuration set up for interpretation of the conditional construction serves as an informational frame which has a mapping potential. It is the protasis which defines the matching⁸⁹ conditions which must be met in order for

⁸⁹ See Fauconnier (1990, to appear).

mapping to proceed and it is the apodosis which maps. The structured informational frame represents a hypothetical reality with its conditions and consequences. The conditions separate the hypothetical reality from the reality of the BASE domain. I will show how the mapping potential functions again using the simple example:

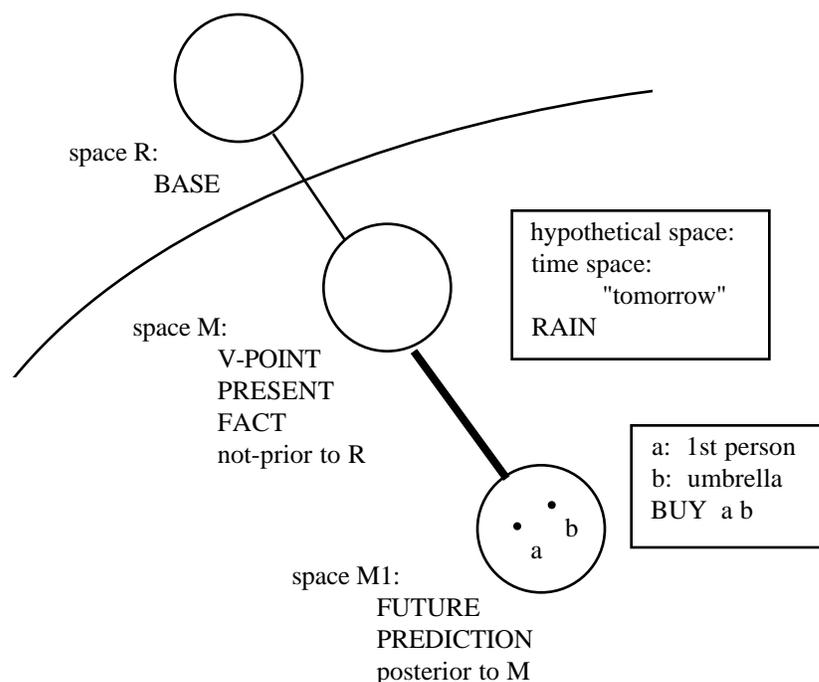
(5.14) If it rains tomorrow, I will buy an umbrella.

The space builder 'if' sets up a hypothetical space, which is structured by the contents of the protasis, 'it rains'.⁹⁰ The Simple Present (PRESENT) indicates that the event is construed as FACT. The expression 'I will buy an umbrella' is a FUTURE PREDICTION made from the hypothetical space where the FACT 'it rains' holds. Figure 5.1 represents the final output of the dynamic interpretation of (5.14).

⁹⁰ In this case, the protasis sets up a single space, but the protasis may also set up a configuration of spaces.

FIGURE 5.1

'If it rains tomorrow, I will buy an umbrella'



In this familiar type of conditional construction, a hypothetical FACT space is set up, and a PREDICTION is made from a V-POINT in the hypothetical space where the FACT holds.⁹¹ This is what Sweetser (1990) calls a 'content level conditional'.

Where a space in the FACTual domain (i.e. "reality") is structured like the PRESENT hypothetical space, the contents of the apodosis may optimize and map onto to speaker reality. For (5.14), if indeed it rains tomorrow, the structure of the FUTURE PREDICTION 'I will buy an umbrella' will map onto speaker reality; the PREDICTION will hold from the V-POINT of speaker reality at the future point where 'it rains' holds, not just from the V-POINT of the hypothetical domain. With optimization, the

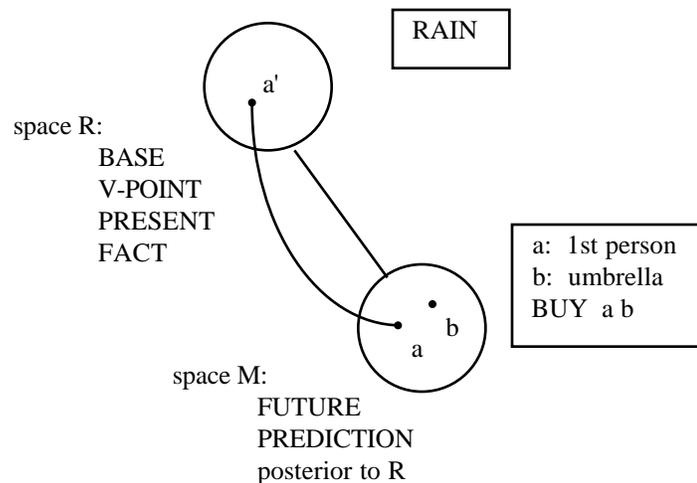
⁹¹ For interpretation of the protasis, V-POINT is BASE. For interpretation of the apodosis, V-POINT shifts to hypothetical space M.

information encoded in the apodosis transfers from the hypothetical domain to the “reality” domain.

It is the hypothetical protasis which sets the matching conditions and determines what the mapping potential is, and the structure of the apodosis that is mapped. The hypothetical space serves to define the matching conditions which must be met in order for the structure of the apodosis to optimize. For (5.14) the matching conditions are: the event 'it rains' must hold as a FACT; it must hold in a PRESENT space; and it must hold within the temporal domain defined by the time adverb 'tomorrow'. Given a space in the domain of FACT (i.e. the "reality" domain) which meets the matching conditions, the entire space configuration built for the interpretation of the apodosis 'I will buy an umbrella' will optimize and be mapped onto speaker reality. The result of the optimization (assuming that is 'tomorrow' and that it is raining or has rained today) is diagrammed in Figure 5.2 below.

FIGURE 5.2

Space Configuration After Mapping



It is the entire structure of the apodosis which maps onto speaker reality and updates the space configuration which is already built. Speaker reality is already available as a PRESENT space and as V-POINT. We may assume that it is already structured by the matching conditions. Thus, the net effect of the mapping is that the structure of the FUTURE PREDICTION anchors to speaker reality at some future point in time 'tomorrow'.⁹²

In this example, since the Simple Present in the protasis has a future interpretation, what the apodosis anchors to after mapping is different from what the conditional construction anchors to as a whole. The apodosis maps onto speaker reality at the moment where the future event 'it rains' holds. If the hypothetical FACT holds, then speaker reality has moved forward in time. Given that mapping proceeds, the PREDICTION would actually be made from a point which is future to 'now', to the V-POINT/BASE to which the utterance as a whole is anchored. This mapping may not of course actually happen. The important point is that the conditional construction offers a mapping potential.

This analysis, under which the conditional construction sets up a mapping potential, allows us to capture a very subtle semantic fact concerning tense in the apodosis. Although the tense in the apodosis of (5.14) is a 'will' Future, the PREDICTION cannot be interpreted as future from 'now', from speech time, as would be predicted under the standard analysis. The event 'I will buy an umbrella' may only be interpreted as future in relation to the hypothetical reality or as future in relation to 'tomorrow' where 'it rains'

⁹² The result of the mapping is as if the apodosis were updating the space configuration as a part of ongoing discourse.

holds.⁹³ The first interpretation is a result of the anchoring of the apodosis before mapping. The second interpretation results from the anchoring of the apodosis after mapping. This point is an important one, since this subtle semantic difference is not accounted for under the standard analysis in which the 'will' Future indicates that the event is future to speech time, to 'now'.

5.5 Embedding Structure of PRESENT Hypotheticals

In this section, we will investigate the tense combinations which are possible with PRESENT protasis. In section 5.5.1, it will be argued that where the protasis is PRESENT, epistemic and speech act conditionals have the same space embedding structure as content level conditionals. The embedded space may be a FACT, rather than a PREDICTION, but the embedding structure is the same. Section 5.5.2 will also show how speech act conditionals use the space partitioning and mapping potential of the hypothetical space configuration to set up felicity conditions for speech acts.

5.5.1 Epistemic Conditionals

Where the Simple Present in the protasis has a future interpretation, almost all tense categories are possible in the apodosis, given a contextual situation where the conditioned relationship makes sense. For example:

⁹³ Of course, if the Simple Present protasis has a present interpretation, as in 'If John is here, then I will make extra food', then given that mapping proceeds, the PREDICTION will be anchored to the V-POINT of speaker reality 'now'. Where the Simple Present has a present interpretation, the hypothetical reality is structured as temporally concurrent to "reality".

(5.15) a. If she calls, then she broke up with her boyfriend.

(She always calls after/when she breaks up with her boyfriend).

b. If she calls, then she has broken up with her boyfriend.

(She always calls after/when she breaks up with her boyfriend)

c. If she calls, then she is depressed.

(She only calls when she's depressed).

In these examples, a conditional relationship is established between a FACT in a hypothetical domain, and a FACTual conclusion which will hold given that the condition set up in the protasis holds. These constructions are what Sweetser (1990) refers to as 'epistemic conditionals'; the conditional relationship is between knowledge and a conclusion ('if I know X, then I can conclude Y').

Sweetser makes the claim that the relaxation of "normal" tense restrictions for epistemic conditionals results from the different space embedding structure, a different link between the space set up for the protasis and the space set up the apodosis. In my analysis, although the embedded space may be a FACT rather than a PREDICTION, the embedding structure of content, epistemic and speech act conditionals with PRESENT protases is the same.

The epistemic conditionals in (5.15) operate in the same manner as the content level conditional in (5.14). The entire 'if X, then Y' construction sets up a space configuration, which is an informational frame which has mapping potential given that certain conditions are met. The output of the interpretation of the conditional constructions (5.15a-c) are diagrammed in Figures 5.3, 5.4, and 5.5 below.

FIGURE 5.3

'If she calls, she broke up with her boyfriend'

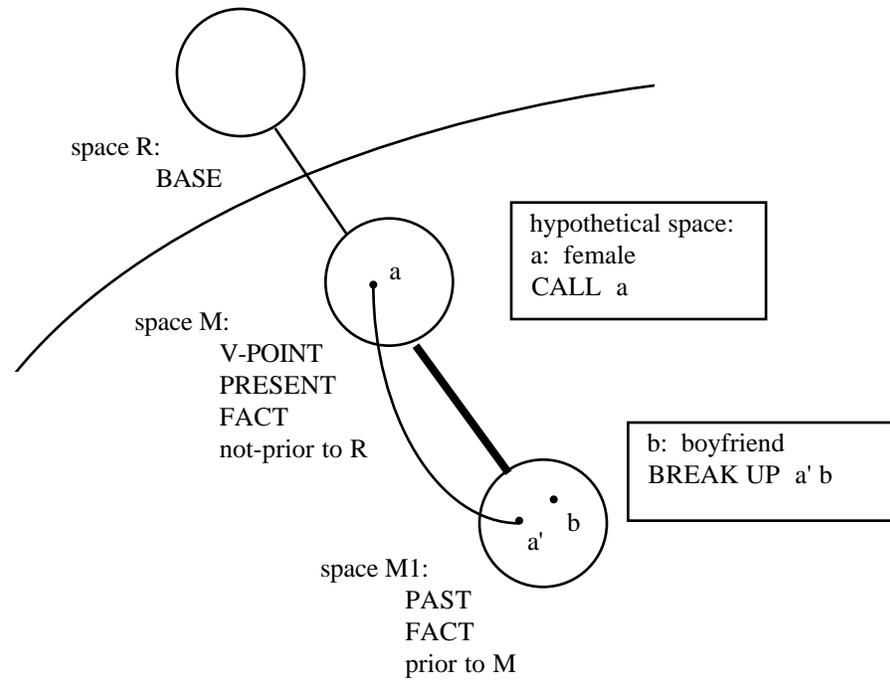


FIGURE 5.4

'If she calls, then she has broken up with her boyfriend'

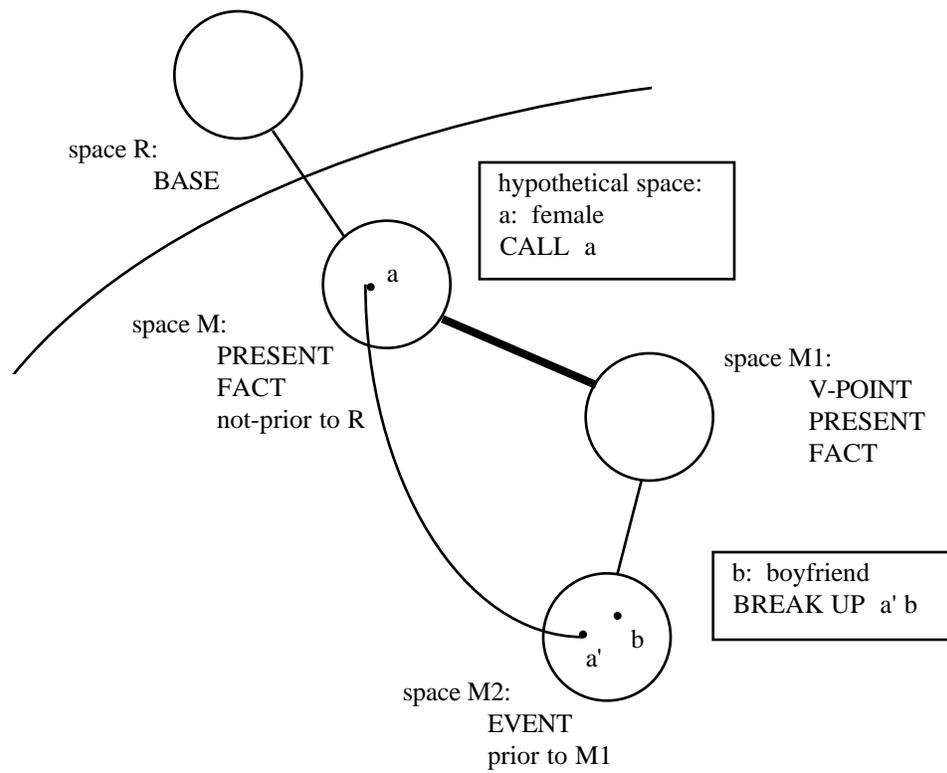
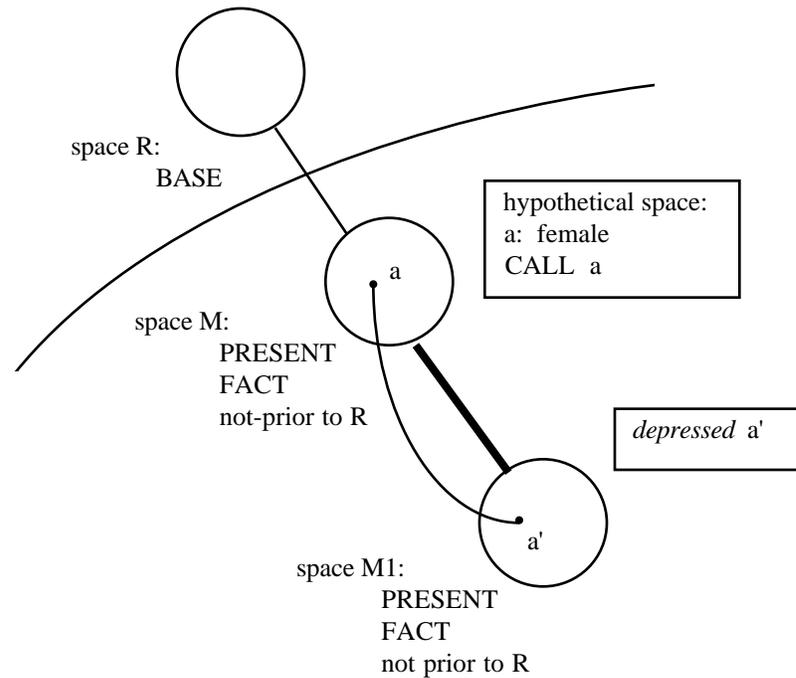


FIGURE 5.5

'If she calls, then she is depressed'



These epistemic conditionals have the same embedding structure as content level conditionals, the only difference is that the embedded space is a FACT, rather than a PREDICTION. In the case of the PRESENT PERFECT apodosis, the entire apodosis structure is separated from the initial hypothetical space, since the EVENT space allows information, entities, and the resultant state to optimize to the parent space. In the case of the PRESENT apodosis, the protasis and the apodosis each structure a different space. The partitioning allows the conditions and conclusions to be separated.

The protasis sets up a hypothetical space which determines the matching conditions which must be met in order for the apodosis to optimize: for (5.15a-c), 'she calls' must hold as a FACT; and it must hold in a PRESENT space. Given a space where these conditions are met, for example tonight she calls, then the structure and content of

the apodosis may optimize from the hypothetical domain of to the domain of speaker reality.

The embedding of the apodosis tense in the hypothetical space and the mapping potential of the apodosis again allows us to account for subtle semantic interpretation of the tense in the apodosis. The point is clearest with the Simple Present in (5.15c). Although the tense in the apodosis is a Simple Present, 'she is depressed' is interpreted as present/concurrent only in relation to the time when 'she calls' holds, either in the hypothetical domain or, given that the matching conditions are met and the mapping proceeds, in the "reality" domain at some future time point. The tense does not tell us that she is depressed now, only that she is depressed at the time of the call.⁹⁴

For (5.15a) and (5.15b), 'she broke up' and 'she has broken up' are anchored to (and interpreted as prior to) the V-POINT in the hypothetical space. Given that the matching conditions set up in the protasis are met, and that matching proceeds, 'she broke up' and 'she has broken up' may also be interpreted as prior to the future moment in "reality" when 'she calls'. The apodosis has the possibility to anchor to V-POINT/BASE, but the BASE must move forward in time. That she broke up with her boyfriend need not be prior to 'now', it need only be prior to the future time when 'she calls'.⁹⁵

⁹⁴ She may in fact be depressed 'now', but this is not necessarily so. Given other information, we might also interpret the apodosis to mean a more general 'now', i.e. 'she is depressed now and at the time of calling', but this interpretation would be a result of contextual, pragmatic information and/or inferencing which would cause the speaker to update the space configuration to fit with all the information provided. This interpretation is not derived from the structure of the conditional construction itself.

⁹⁵ The break up may in fact happen between 'now' and the time of the calling. It may also be true that she broke up with her boyfriend before 'now', but this interpretation would be derived from inferencing and other information which would update the space configuration. This meaning is not contributed by the conditional construction itself.

In conditional constructions, only the tense in the protasis anchors to 'now', to V-POINT/BASE. The tense of the apodosis is anchored only in the hypothetical domain. Since the apodosis also has a mapping potential, the apodosis may potentially optimize and anchor to V-POINT/BASE at the point where the matching conditions hold. The important point is that it is a potential, not that the mapping actually occurs. Where the protasis has a future interpretation, as in examples (5.15), in order for mapping to proceed, speaker reality and the V-POINT/BASE must move forward in time. This mapping potential analysis allows us to capture subtle semantic facts not explained under the standard analysis, where tense is merely anchored to speech time.

More complex tense forms are also possible in the apodosis given a proper context. Some tense combinations which may at first appear ungrammatical, in fact are possible in a pragmatically felicitous context, although it may take a bit of mental gymnastics to create such a context. Consider:

- (5.16) a. * If she has the baby in June, then she had gotten pregnant.
- b. If she has the baby in June, then she had gotten pregnant before the wedding.
- c. If (it's true what they say that) she had gotten pregnant before the wedding, then she will have the baby in June. So if she has the baby in June, then (we know that) she had gotten pregnant before the wedding.

Often the Past Perfect is odd or appears to be ungrammatical in "non-contextual" settings, such as (5.16a), because its use is semantically and pragmatically infelicitous. However,

in a context where the apodosis makes sense as a conclusion, as in (5.16b,c), the Past Perfect is felicitous and is acceptable. As pointed out in chapter 4, pragmatically felicitous contexts are particularly important for the Past or Future Perfects. The purpose of the Past Perfect in (5.16) is to compare two time periods, one prior to the other, and both prior to BASE. A pragmatically felicitous context provides a reason for comparing the two time periods. In order for the Past Perfect to be felicitous, at least one of the time periods in addition to BASE must be set up or suggested.

A FUTURE PERFECT is also possible with a little more mental effort. The FUTURE PERFECT also requires a pragmatically felicitous context, where it makes sense to compare two time periods, the first of which is posterior to BASE and the second which is prior to the first. Both are distinct from BASE.

(5.17) It's now August. She's trying to get pregnant. The wedding is in October.
 If she has the baby next year in September (as the astrologer predicted),
 then she will have gotten pregnant after the wedding (and her mother will
 be happy).

With the FUTURE PERFECT, a PREDICTION is made about the probability of some FUTURE event. The EVENT space is embedded in a PREDICTION space.

A PAST FUTURE PERFECT (or PAST FUTURE PAST) is also possible.

(5.18) If she has the baby in September then (we may conclude that) she would
 have gotten pregnant after the wedding.

The PAST FUTURE PERFECT is easily accessible, since the wedding sets up a potential past point of reference, a potential PAST V-POINT from which a PREDICTION may be set up. The target space is an EVENT or FACT space embedded under the PREDICTION space.

A PAST FUTURE is also possible, but perhaps the most difficult to extract.

(5.19) Jane is pregnant. The child might be that of her husband who left on a business trip three months ago. It might also be that of a strange man she went home with one night, shortly after her husband left. Jane doesn't know when the baby will be born. It is now April. If the baby is born in September, then it would be her husband's child. If the baby is born in October or November, then it would be a bastard child.⁹⁶

The PAST FUTURE requires a context which makes a PREDICTION from a PAST V-POINT semantically and pragmatically felicitous. In (5.19), we may interpret 'would be' as a PREDICTION starting from a PAST V-POINT, perhaps from the moment of conception. In comparison to (5.18), the 'would' construction in (5.19) structures a PREDICTION space, rather than an EVENT (or FACT) space. Part of the difficulty for examples such as (5.19) is that it is odd to talk about events which are in a PREDICTION space in a PAST domain. In fact, although common in narrative, PAST FUTUREs are rare in conversation. We expect more certainty when talking about a PAST domain. It is easier to talk about EVENTS or FACTs embedded in a PREDICTION in a PAST domain,

⁹⁶ The distinction between dynamic and static predicates seems to make a difference here. It is less difficult to construct a context for a PREDICTION about a static event.

as in (5.18). In fact, the FUTURE PERFECT is used in English and commonly used in French to surmise about past events, past events which are expected to be true (see chapter 4, section 4.9.2).

The difference in (5.18) and (5.19) lies in where the event or situation is placed. In (5.19), the situation is placed in an actual PREDICTION space. It is only predicted to happen, hence it is inherently more uncertain than what is placed in an EVENT of FACT space. With (5.18), the event is placed in an EVENT (or FACT) space which is embedded under a PREDICTION space. The event itself is not predicted, it is predicted to be true from some V-POINT.

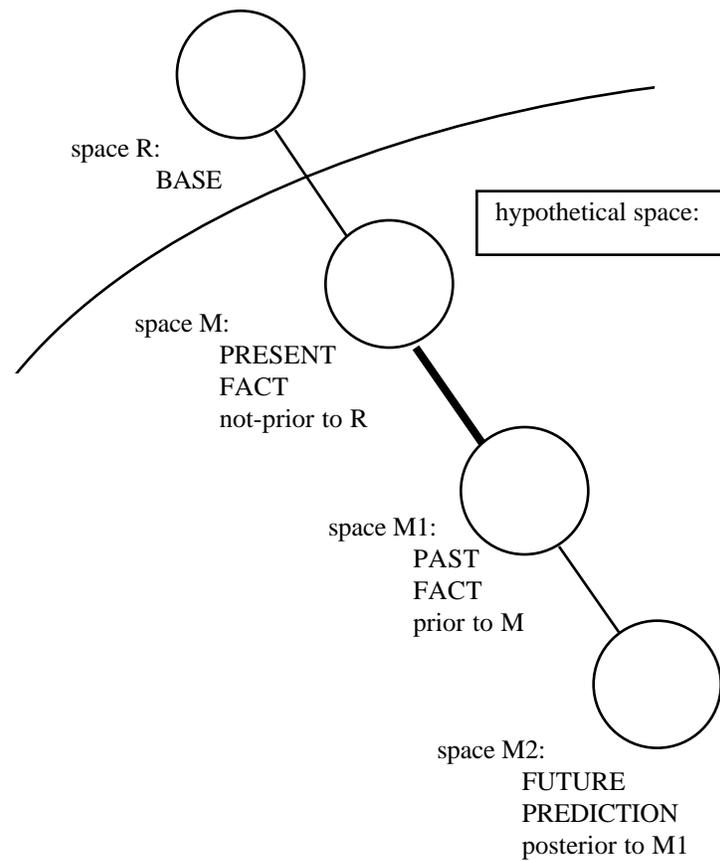
Note that both (5.19) and (5.18) are not accounted for in the analysis of Fillmore (1990). In Fillmore's analysis, the conditional present 'would ___' characterizes a present or future counterfactual apodosis. The conditional perfect 'would have ___' characterizes a past counterfactual apodosis. The epistemic stance of the protasis in (5.18) and (5.19) is hypothetical. If the epistemic stance of the 'would' constructions in the apodosis are counterfactual, then Fillmore's constraint on epistemic concord would rule these examples out.

The analysis presented here allows us to characterize very precisely the use of 'would' in both hypothetical and counterfactual constructions. In the analysis presented here, the conditional forms 'would ___' and 'would have ___' in examples (5.18) and (5.19) are not embedded in a counterfactual domain, as is typically the case. They are not truly counterfactual. They are simply a PAST FUTURE or a PAST FUTURE PERFECT

embedded in a hypothetical domain, as represented in Figures 5.6 and 5.7 respectively.⁹⁷

FIGURE 5.6

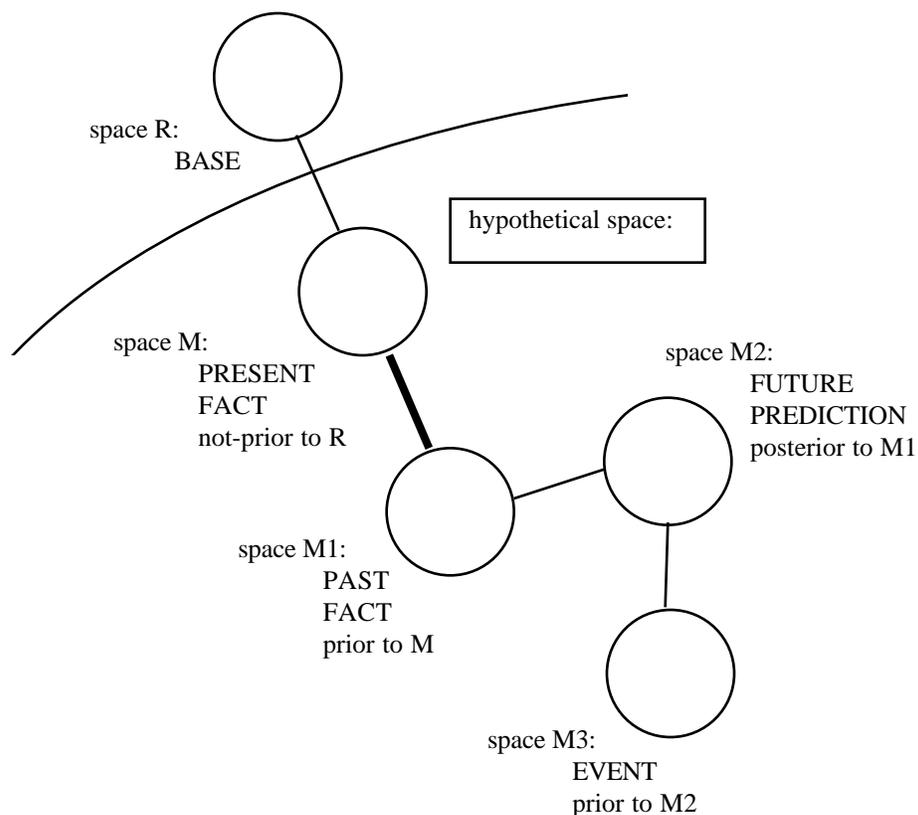
PAST FUTURE apodosis



⁹⁷ Each parent space serves sequentially as V-POINT for construction of its daughter space. The final V-POINT is not represented in these diagrams.

FIGURE 5.7

PAST FUTURE PERFECT apodosis



The 'would' constructions do not represent truly counterfactual situations, because they are not embedded in a counterfactual domain. (5.18) is quite possible. Although the necessity of a construction such as (5.19) is difficult to imagine, it is also possible. Under the present analysis, both are allowed where a pragmatically felicitous context can be set up. The reader is invited to compare use of the PAST FUTURE and the PAST FUTURE PERFECT in (5.18) and (5.19) with examples in section 5.6.2, where the PAST FUTURE and PAST FUTURE PERFECT are embedded in a real counterfactual domain.

5.5.2 Speech Act Conditionals

The claim was made in the preceding section that where the protasis is PRESENT, epistemic conditionals have the same embedding structure as content level conditionals. This section will show that speech act conditionals may also be handled in the same manner as epistemic and content level conditionals. Consider again the following examples.

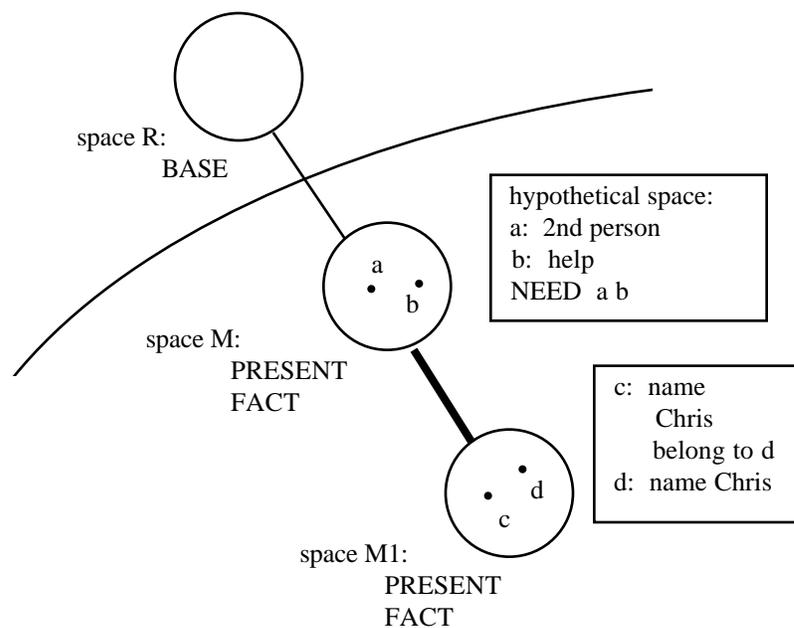
(5.20) a. If you need help, my name is Chris.

b. If it's not rude to ask, what made you decide to leave IBM?

Speech act conditionals set up a space configuration which has mapping potential. The space configuration set up for (5.20a), for example, is diagrammed in Figure 5.8 below.

FIGURE 5.8

'If you need help, my name is Chris'



The embedding structure is the same as that of hypothetical conditionals discussed above. The hypothetical space defines the matching conditions which must be met in order for optimization to occur, and it is the structure of the apodosis, the speech act, which optimizes. In (5.20a), the speech act of giving the information 'My name is Chris' may optimize successfully to speaker reality if the matching conditions set up by the protasis are met (if it's true that 'you need help'). In (5.20b), the speech act of asking the question 'what made you decide to leave IBM?' may optimize successfully to speaker reality where the matching conditions set up by the protasis are met (if it's true that 'it's not rude to ask').

Speech act conditionals exploit two mechanisms available to the user of conditional constructions: the partitioning of the hypothetical information and the matching potential of the apodosis where the conditions offered in the protasis are met. The space partitioning and the matching potential of the conditional construction are used to set up prerequisite felicity conditions which must be fulfilled in order for the speech act to be successful and non-defective (i.e. for the speech act to optimize and anchor onto speaker reality).

Utterances such as (5.20) are likely to be made with the assumption that the matching conditions will be met, and thus that the speech act will map and be successful. Although the construction is a hypothetical one, the speaker is likely to assume that the conditions will be met, and that the mapping proceeds. The external epistemic stance is actual or assumed (P). It does not matter whether the protasis is actually true, of course, only that the speaker assumes it to be true. Since the protasis has a present interpretation, and since mapping is assumed, we may interpret tense in the apodosis as anchored to 'now'.

5.5.3 Summary

In this section, conditional constructions with PRESENT protases have been considered. Epistemic, content, and speech act conditionals were analyzed as having the same embedding structure. We saw that all tense combinations are possible with PRESENT protases, given a pragmatically felicitous context. The mental space structures proposed here allow us to account for certain examples not ruled out by Fillmore's (1990) analysis, and to give a more formal characterization of the notion of epistemic stance of individual protases and apodoses. We will now turn to an investigation of structures with PAST protases.

5.6 The Simple Past in Conditional Protasis

5.6.1 PAST Counterfactuals and Hypotheticals

The Simple Past may appear in the protasis of conditional constructions with a present, or future temporal interpretation in relation to BASE, which in the default case is speaker reality. This is shown by examples (5.21).

- (5.21) a. If I had time now, I would help you.
 b. If I had time tomorrow, I would come to the party.

In (5.21a), the temporal interpretation given the PAST event in the protasis is present in relation to speaker reality. In (5.21b), the temporal interpretation given the PAST event in the protasis is posterior to speaker reality. Where the temporal interpretation of the PAST

is present or future to 'now', as defined by context or time adverbs, the construction is a counterfactual one. The situation encoded in the protasis is portrayed as untrue. Examples (5.21) are counterfactuals.

The Simple Past may also appear in the conditional protasis with a "normal" interpretation, as prior to 'now'.

- (5.22) a. If you did your homework last night (as you say you did), then you can
watch TV now.
- b. If John gave me the keys yesterday, then they are in my purse.
(I always put the keys in my purse).

In (5.22), the temporal interpretation given the PAST is actually past in relation to speaker reality. The situation encoded in the protasis is portrayed as a hypothetical, as possibly being true. Examples (5.22) are PAST hypotheticals.

In the analysis of conditional constructions proposed here, the entire 'if X, then Y' construction sets up a mental space configuration, a kind of structured informational frame, which has a mapping potential. The protasis sets up the matching conditions under which the structure of the apodosis may optimize and anchor to the V-POINT/BASE, in this case speaker reality by default. As we will see in this section, this analysis provides an obvious explanation not only for the behavior of the PAST in conditional protasis, in both its (present/future) counterfactual (5.21) and PAST hypothetical readings (5.22), but also for the cooccurrence restrictions on tense in the apodosis. I will claim that the tense restrictions on the apodosis of counterfactuals is a result of the special properties of the counterfactual domain which not only block optimization of the apodosis, but also limit

the type of apodosis structure which may be embedded in the counterfactual domain.

5.6.2 Counterfactuals

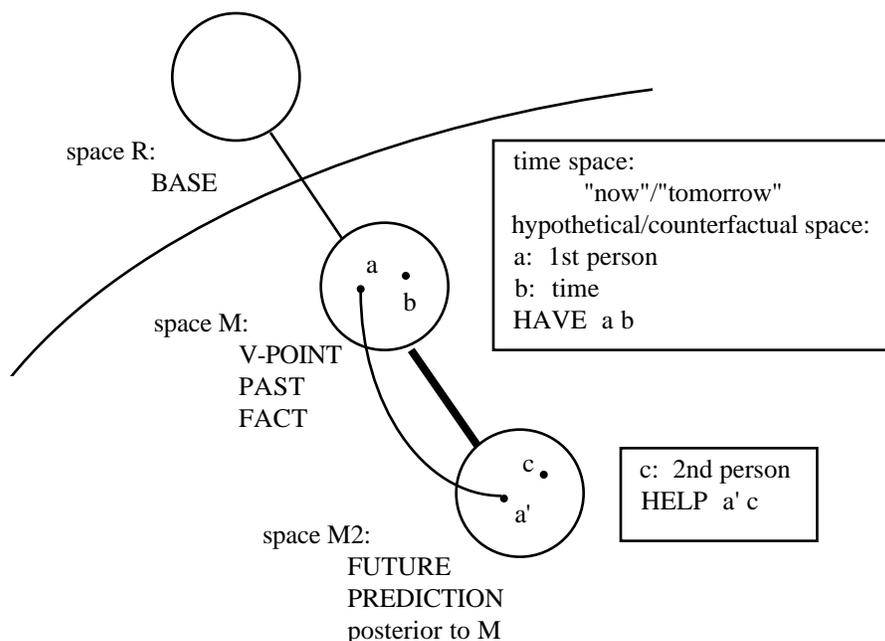
In the protasis of counterfactual constructions, the PAST may have a present or future counterfactual interpretation. Remember that the PAST may be used as a strict counterfactual only in reference to the domain which is non-prior to BASE, i.e. the present and the future. Consider again example (5.21) repeated here as (5.23).

(5.23) If I had time now/tomorrow, I would help you.

With a PAST counterfactual such as (5.23), a conditional relationship is established between a PAST FACT space (set up by the protasis), and a PREDICTION which is made from a V-POINT in the PAST space where the FACT holds. In this case, the PREDICTION space set up for interpretation of the 'would' construction is embedded in a truly counterfactual domain. The 'would ___' construction, a PAST FUTURE, traces an access path from BASE. The space configuration which results from the interpretation of (5.23) is diagrammed in Figure 5.9.

FIGURE 5.9

'If you had time now/tomorrow, I would help you'



The space builder 'if' sets up a hypothetical space M. Since a hypothetical domain has the same spatio-temporal properties as the domain of "reality", we expect the initial hypothetical space to be a PRESENT one. In fact, for (5.23), the hypothetical space set up for the protasis represents a time period 'now' or 'tomorrow'. However, space M is also assigned the property of being PAST in relation to V-POINT/BASE.⁹⁸ Hence, space M must be interpreted as a counterfactual space, since no space in the "reality" domain will have those properties.

The space configuration set up by the conditional construction is a kind of structured informational frame, which has mapping potential. The protasis defines the matching conditions which must be met in order for the structure of the apodosis to

⁹⁸ Again V-POINT will shift to space M for interpretation of the apodosis.

optimize and map onto the BASE, in this case speaker reality by default. In Figure 5.9, the PAST space defines the matching conditions which must be met in order for the PAST PREDICTION to optimize: the event 'I have time' must hold as FACT; it must hold as FACT in a PAST space; and it must hold as FACT within the temporal domain defined by the time adverb 'now' or 'tomorrow'.

As a matching condition in a counterfactual space which refers to the present or future, the PAST functions to block optimization of the apodosis, since in the domain of reality there is no space which is both PAST and 'now' or 'tomorrow'. It is from this optimization blocking that the semantics of counterfactuality in relation to speaker reality which is associated with the PAST in hypothetical constructions is derived.⁹⁹ In reference to a present or future time period (i.e. the PRESENT domain, the domain of non-prior FACTs), a PAST protasis will always be counterfactual.

Given the structure of the counterfactual space, only two tense possibilities are offered for the apodosis. One possibility is the PAST FUTURE, encoded by 'would ___', as in (5.23). Another possibility is a PAST FUTURE PERFECT (or PAST FUTURE PAST), encoded by 'would have ___', as in (5.24) below. This structure may be used to make predictions about temporally prior events.

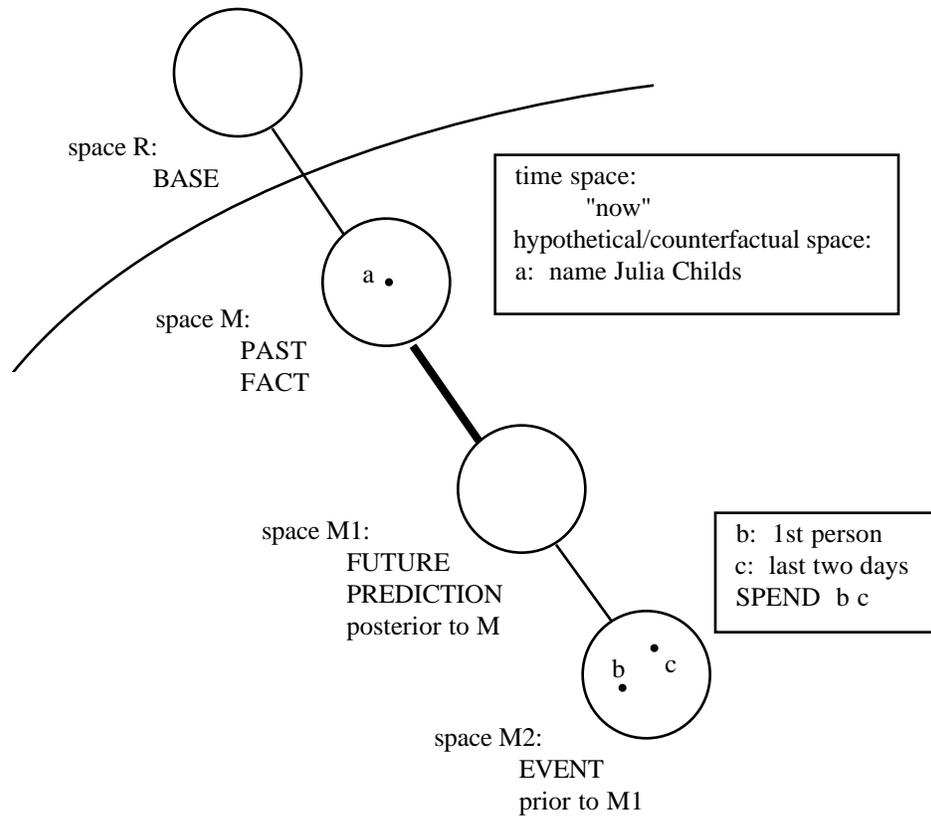
⁹⁹ This analysis is consonant with the metaphor of temporal distance as a marker of epistemic distance. See chapter 4 for a discussion of this.

- (5.24) a. If Julia Childs were/was here (with us now for lunch), I would have spent the last two days in the kitchen.
- b. (It's Sunday night. My paper is due in two days. I don't have time to write the whole paper tomorrow on Monday.) If I had enough time tomorrow to write the paper, I wouldn't have spent the whole weekend working on it.

In (5.24a) the subjunctive 'were' marks a strictly counterfactual space. The non-standard variant 'was' is also possible. We will ignore the difference for the moment. A PREDICTION from the counterfactual domain about a prior event is possible where the conditioned relationship is semantically and pragmatically felicitous, where we can construct a plausible context, although this may take a bit of mental agility. The output of the interpretation of (5.24a) is diagrammed schematically as in Figure 5.10 below.

FIGURE 5.10

'If Julia Childs were/was here,
I would have spent the last two days in the kitchen'



The PAST FUTURE PERFECT (or PAST FUTURE PAST) embeds an EVENT (or FACT) space within a PREDICTION made from the PAST counterfactual space. In this case, the 'would have ___' construction is truly embedded in a counterfactual domain.

Conclusions about prior events cannot be asserted as FACTs from the counterfactual domain, as shown by the unacceptability of (5.25a-d) and (5.26a-d).

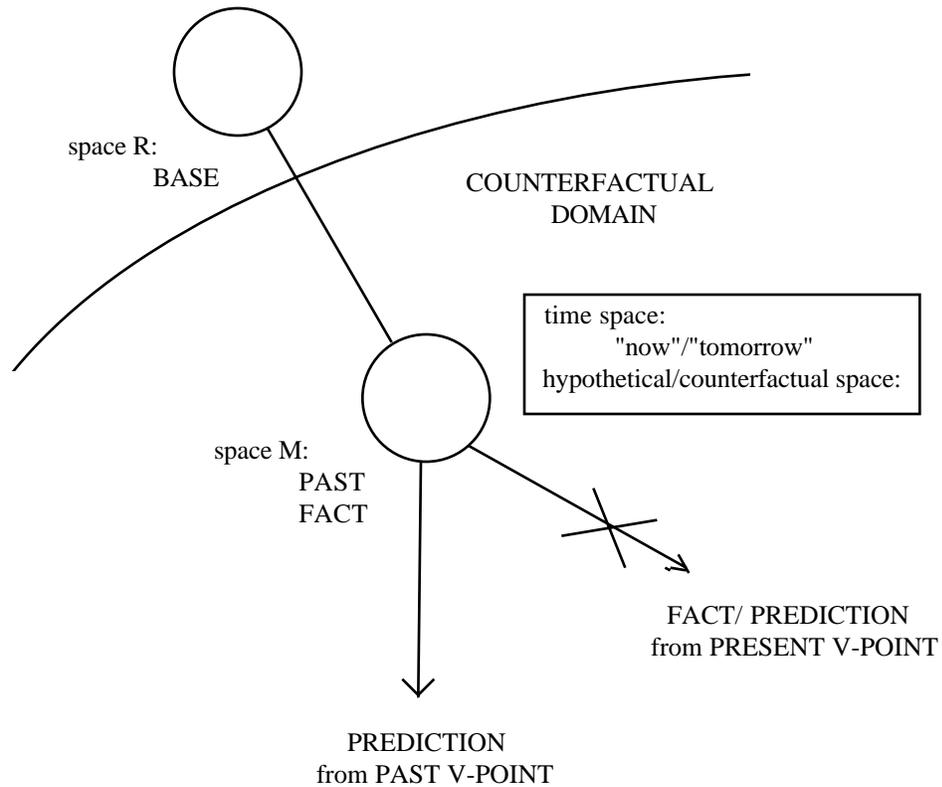
- (5.25) a. If I had time now/tomorrow, *then I finished my work yesterday
 b. If I had time now/tomorrow, *then I had already finished my work yesterday.
 c. If I had time now/tomorrow, *then I have already finished my work.
 d. If I had time now/tomorrow, *then I will finish my work.
- (5.26) a. If John gave me the tickets tomorrow, *then he stood in line all day yesterday.
 b. If John gave you the tickets tomorrow, *then he had bought them before the deadline today.
 c. If John gave me the tickets tomorrow, *then he already has them.
 d. If John gave me the tickets tomorrow, *then I will be happy.

No epistemic counterfactuals are possible, since we cannot draw a conclusion based on events that are sure not to happen. In Fillmore (1990), examples such as (5.25) and (5.26) are ruled out because they have a non-unified epistemic stance.

The analysis proposed here allows us to capture in a more formal way Fillmore's claim that the conditional constructions must have a unified epistemic stance. In the counterfactual structure, there is no "normal" present hypothetical reality, no PRESENT hypothetical space for the apodosis to build onto. This blocks the anchoring of the apodosis in (5.25) and (5.26) to the initial hypothetical space, as represented in Figure 5.11 below.

FIGURE 5.11

Counterfactual Structure



Since the counterfactual space is PAST in relation to BASE, the initial counterfactual space is not a suitable anchor point for access of the apodosis tense forms in (5.25) and (5.26). The structure of the apodosis is built from and embedded under an initial hypothetical space. With the counterfactuals, there is no "normal" access point, no present, hypothetical space for the structure of apodosis to build onto.

Only the 'would' constructions (PAST FUTURE or PAST FUTURE PERFECT/PAST) can embed a PREDICTION space under the initial space in a counterfactual domain. The 'would' constructions are accessed directly from BASE, so in fact only part of the structure embeds. Even in the case of the 'would' forms, the

counterfactual space does not serve as an anchor point for the entire access path marked by the tense category. Note that while the 'would' form can take an access path through the counterfactual space, the Pluperfect cannot. The structure of the Pluperfect apodosis must be separate from the protasis structure because of the optimization effects of the EVENT space. The target space for the 'would' forms does not have the same optimization effects as that of the Pluperfect, since it is temporally posterior to its parent, rather than prior.

5.6.3 PAST hypotheticals

In conditional protasis, the PAST may also have a PAST hypothetical reading. In contrast to PAST counterfactuals, a greater number of tense combinations are available for PAST hypotheticals. For example:

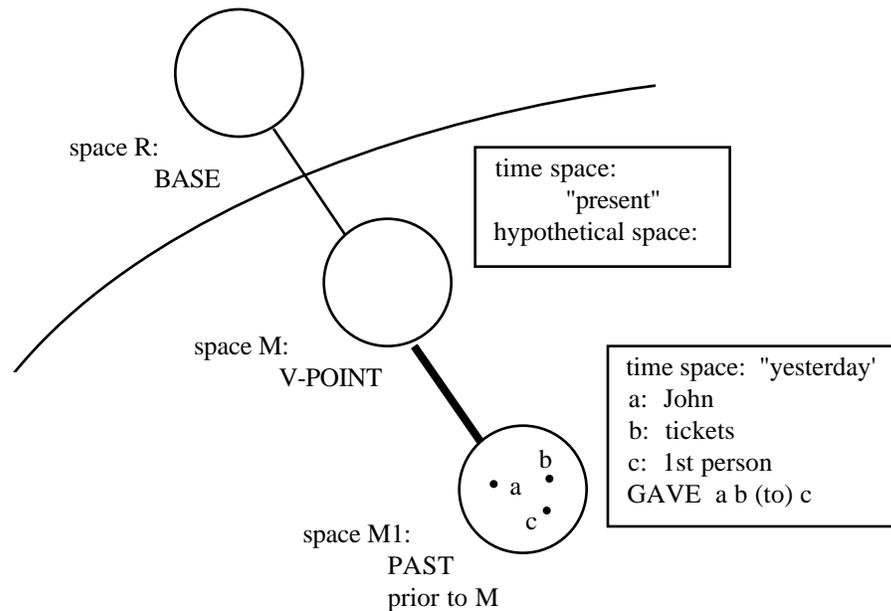
- (5.27) a. If (as you say) John gave me the tickets yesterday, then I threw them away by accident (when I cleaned out my purse).
- b. If (as you say) John gave you the tickets yesterday, then he had bought them before the deadline today.
- c. If (as you say) John gave me the tickets yesterday, then they are in my purse.

(5.28) If (as you say) John gave me the tickets yesterday, then they will be in my purse.

For examples (5.27) and (5.28), interpretation of the protasis must result in the construction of a hypothetical domain of two spaces. The hypothetical domain, in contrast

to the counterfactual domain, has the same properties as the "reality" domain. 'If' sets up a hypothetical space, space M. A PAST space, space M1 will be constructed as daughter of M. Since the hypothetical domain has the same properties as the "reality" domain, we would expect the hypothetical space to refer to a present time period, (or perhaps to be PRESENT), by default. Given the normal temporal properties of the hypothetical domain, the initial hypothetical space is an appropriate anchor point for any access path. The structure is as diagrammed in Figure 5.12.

FIGURE 5.12 'If (as you say) John gave me the tickets yesterday...'



For hypothetical constructions, where the hypothetical domain has the same temporal properties as the "reality" domain, a true PAST space is constructed, not a present counterfactual. The apodosis builds from the initial hypothetical space M. The output of the possibilities given in (5.27) are diagrammed in Figures 5.13 through 5.14.

FIGURE 5.13 'If (as you say) John gave me the tickets yesterday, then I threw them away by accident (when I cleaned out my purse)'

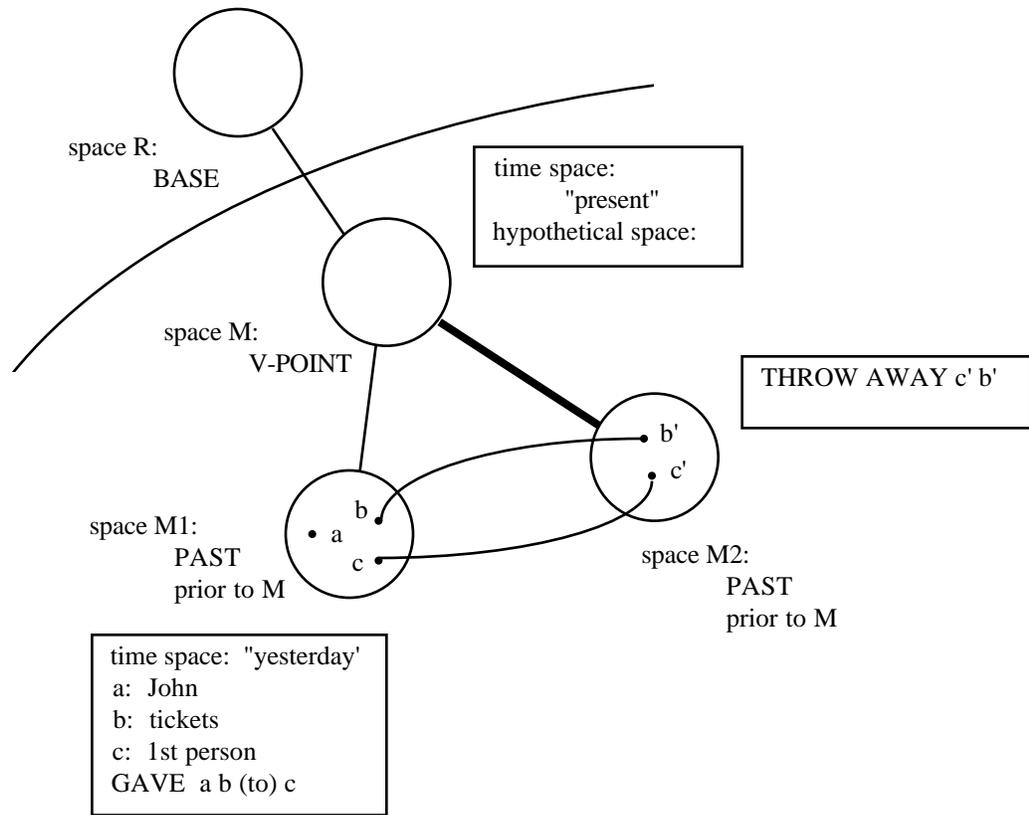


FIGURE 5.15

'If (as you say) John gave me the tickets yesterday,
then they are in my purse'

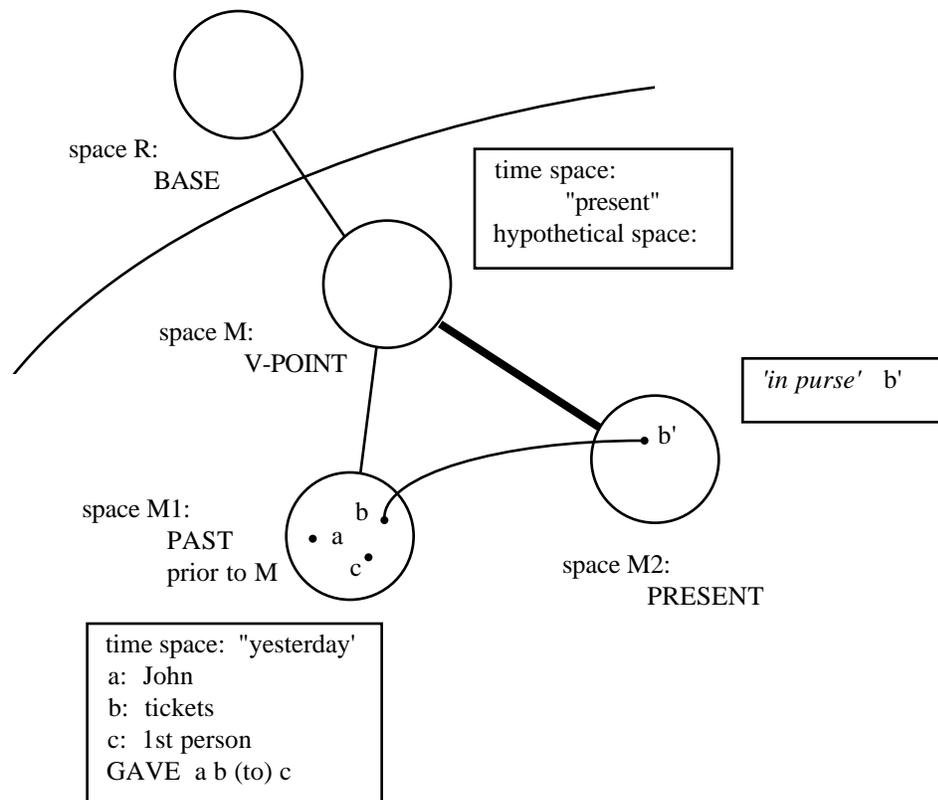
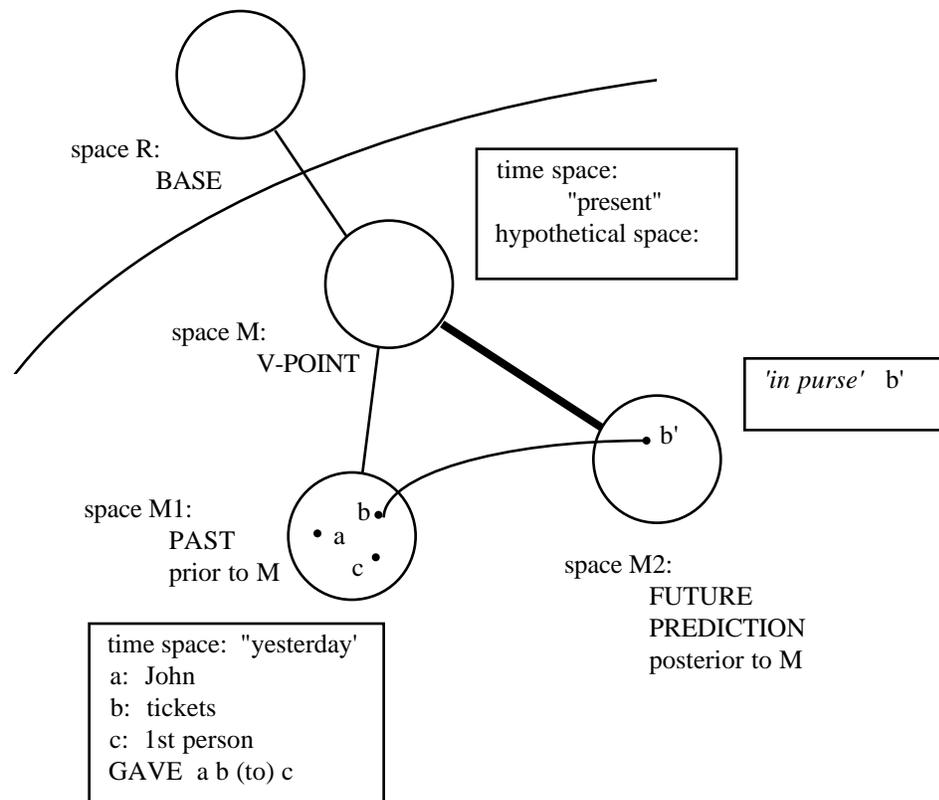


FIGURE 5.16

'If (as you say) John gave me the tickets yesterday,
then they will be in my purse'



The structure of the PAST hypothetical allows a full variety of tense combinations, where we can construct a context for the conditioned relationship encoded in that combination. The daughter space built may be a PAST FACT, a PRESENT FACT, or a FUTURE PREDICTION.¹⁰⁰ The partitioning of information into different spaces is needed to

¹⁰⁰ Note that the Past Perfect (PAST PERFECT or PAST PAST) must also build from space M. It cannot trace a path through the protasis structure as the 'would' constructions can. The Past Perfect structure must be separate, since information from the target EVENT or FACT space may optimize to the parent space. Hence, the parent space cannot be part of the protasis structure, if conditions and consequences are to be kept separate. The same optimization effects do not occur with the 'would' (PAST FUTURE) constructions. Information will not optimize out of the EVENT or FACT space to the parent space in the protasis structure, since that parent space is temporally prior to the target space.

keep the matching conditions and the consequences separate.

Where the expressions 'would ____' or 'would have ____' appears in the apodosis, the PAST hypothetical protasis builds a different structure than its counterfactual cousin. Consider (5.29a) and (5.29b).

- (5.29) a. If (as you say) John gave me the tickets yesterday, then they would be
in my purse. (So why don't you go and look there).
- b. If (as you say) John gave me the tickets yesterday, then I would have
put them in my purse.

Since the PAST space set up for the protasis is not a counterfactual space with special properties, but a true PAST space, a space configuration as in Figure 5.17 is built for (5.29a) or Figure 5.18 built for (5.29b). A PERFECT reading is assumed for (5.29b).

FIGURE 5.17

'If (as you say) John gave me the tickets yesterday, then they would be in my purse'

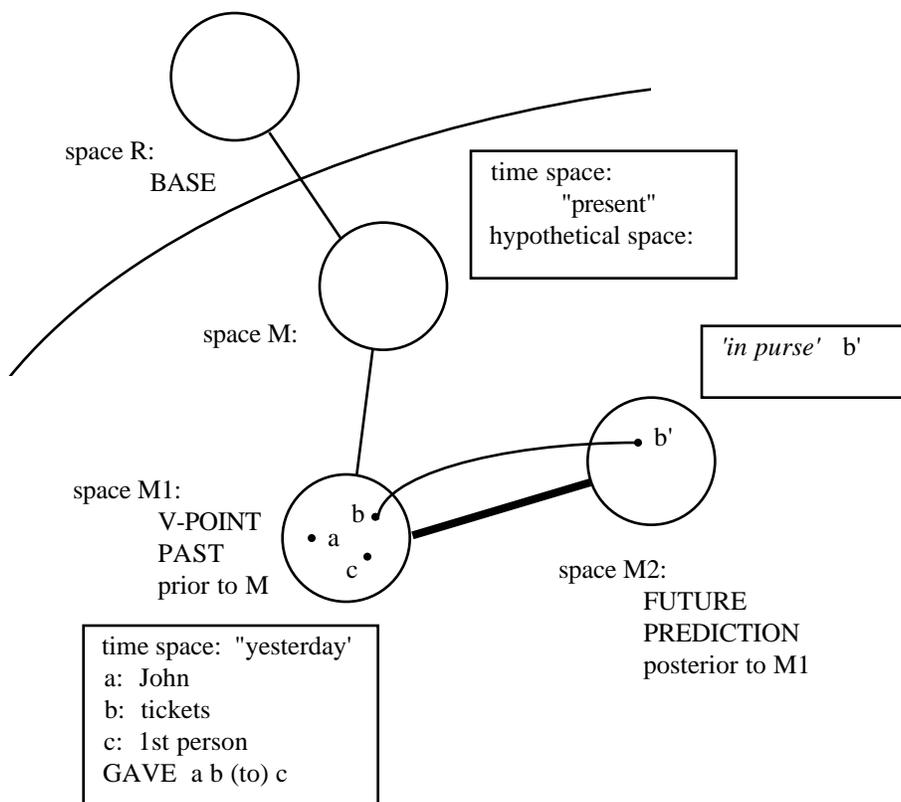
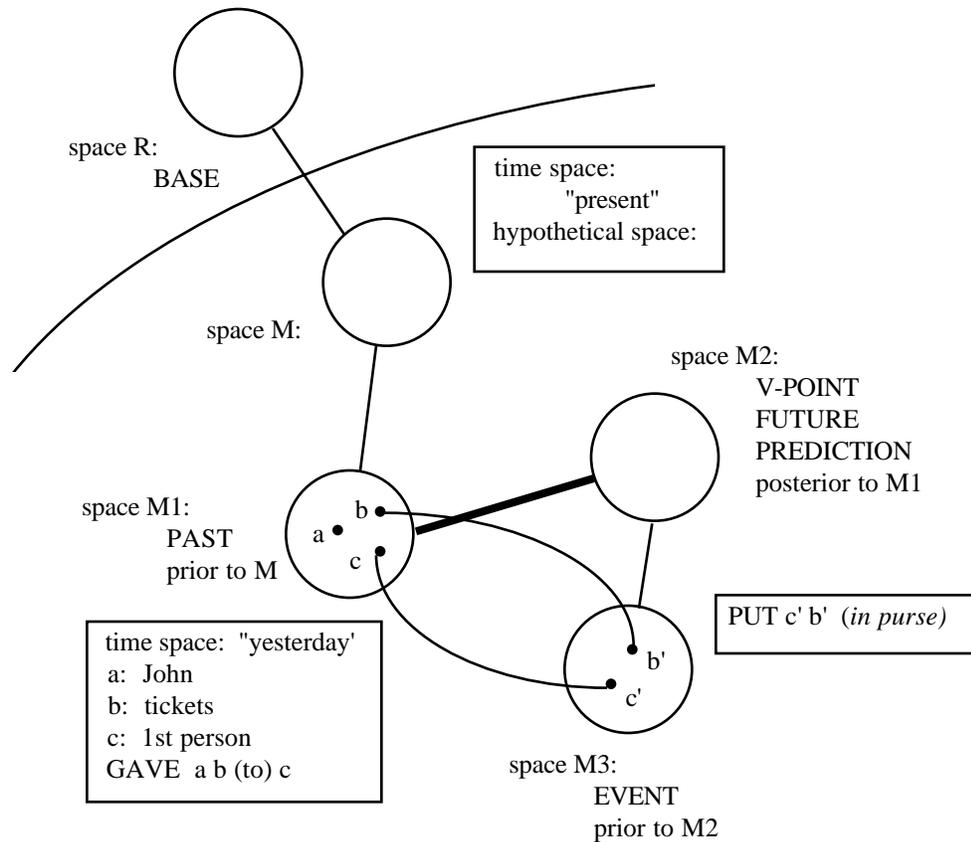


FIGURE 5.18

'If (as you say) John gave me the tickets yesterday,
then I would have put them in my purse'



The PAST FUTURE or PAST FUTURE PERFECT are anchored to the initial hypothetical space and are accessed from this space via a PAST daughter space. The structure and the access properties of the 'would' forms in Figures 5.17 and 5.18 may be contrasted with the structure and access properties of 'would' forms in counterfactual constructions in Figures 5.9 and 5.10 above, where the anchor point for the 'would' construction is BASE.

Again, Fillmore (1990) does not account for examples such as (5.29a) and

(5.29b). Under Fillmore's analysis, the conditional present 'would ___' characterizes present and future counterfactual apodoses. The conditional perfect characterizes past counterfactual apodoses. Under the analysis presented here, examples (5.29) are possible, since the 'would' forms may be embedded in either a counterfactual domain or a purely hypothetical domain.

5.7 Pluperfect Protasis

In this section, we will consider Pluperfect protases, with hypothetical, present or future counterfactual, and past counterfactual readings. We will see that in its hypothetical reading, the Pluperfect protasis allows a full range of tense combinations in the apodosis. In its counterfactual reading, the Pluperfect allows only a limited set. I argue again that this is due to the special properties of the counterfactual domain, which block not only optimization of the apodosis, but also limit the type of apodosis structure which can be embedded in the counterfactual domain under the initial hypothetical/counterfactual space.

5.7.1 Pluperfect Hypotheticals

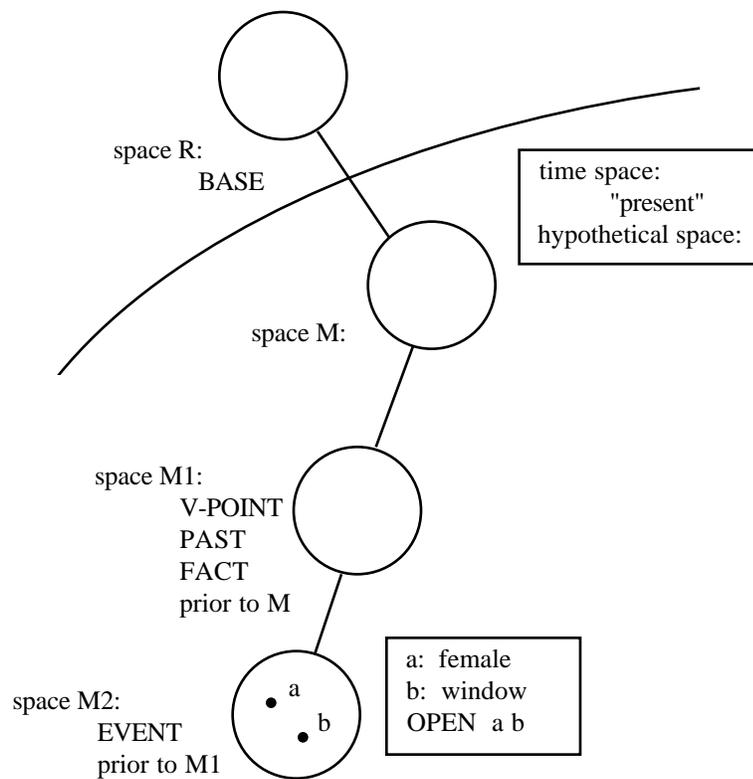
As we saw in section 5.3, the Pluperfect in the protasis may have a number of different interpretations. We will begin by considering the hypothetical interpretation. Consider again example (5.13a) repeated here as (5.30).

(5.30) If she had opened the window (before she got captured), then they'll escape.

(from Fillmore 1990)

The Pluperfect in (5.30) is a hypothetical construction; the protasis is a PAST PERFECT (or PAST of PAST) which sets up a domain of two spaces, one prior to the other and both prior to BASE. The interpretation of the protasis of (5.30) results in a space configuration as in Figure 5.19 below. A PERFECT reading is assumed.

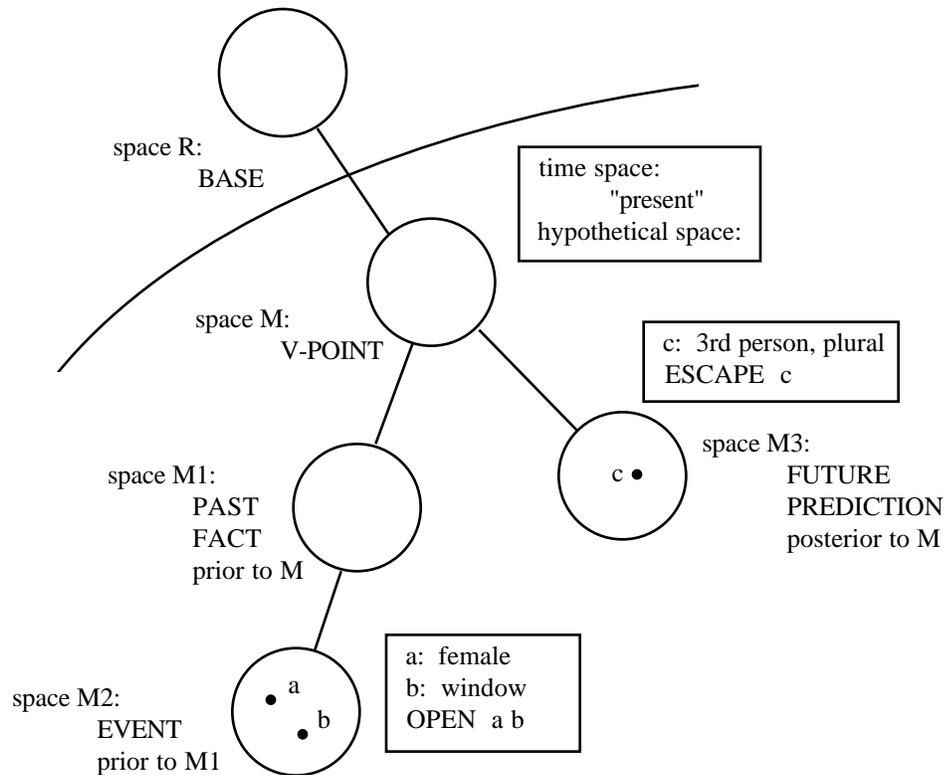
FIGURE 5.19 'If she had opened the window (before she got captured)...'



Interpretation of the apodosis builds on from the initial hypothetical space M. The result is diagrammed in Figure 5.20 below.

FIGURE 5.20

'If she had opened the window (before she got captured),
then they'll escape'



In hypothetical constructions, the hypothetical domain has the same temporal properties as the domain of "reality". It has a past, a present, and a future. Hence, we expect the initial hypothetical space to represent the present, and perhaps to be a PRESENT space, by default. In hypothetical constructions, the apodosis anchors to the initial hypothetical space, as illustrated in Figure 5.20.

Since the hypothetical domain has the same temporal properties as the "reality" domain, any tense is possible in the apodosis, given that we can construct a semantically and pragmatically suitable context for the conditioned relationship. Some other tense

combinations are given below.

- (5.31) a. If John had finished his project before he left on vacation (as is rumored), then (I'm sure) he is living it up in Hawaii now.
- b. If (before he went off to war last week) John had asked Alice to marry him (as is rumored), then I'm sure she accepted.
- c. If John had sold his car before moving to L.A., then (I'm also sure that) he'd already bought a new one.

For all of these examples, the interpretation of the apodosis will build onto the initial hypothetical space. Again, the more complex the construction of spaces, the more difficult it is to construct a situation which is semantically and pragmatically felicitous.

5.7.2 Pluperfect Counterfactuals

The Pluperfect protasis may also have a counterfactual reading, as in example (5.13) repeated here as (5.32).

- (5.32) If George had come now/tomorrow, Phyllis would have been pleased.

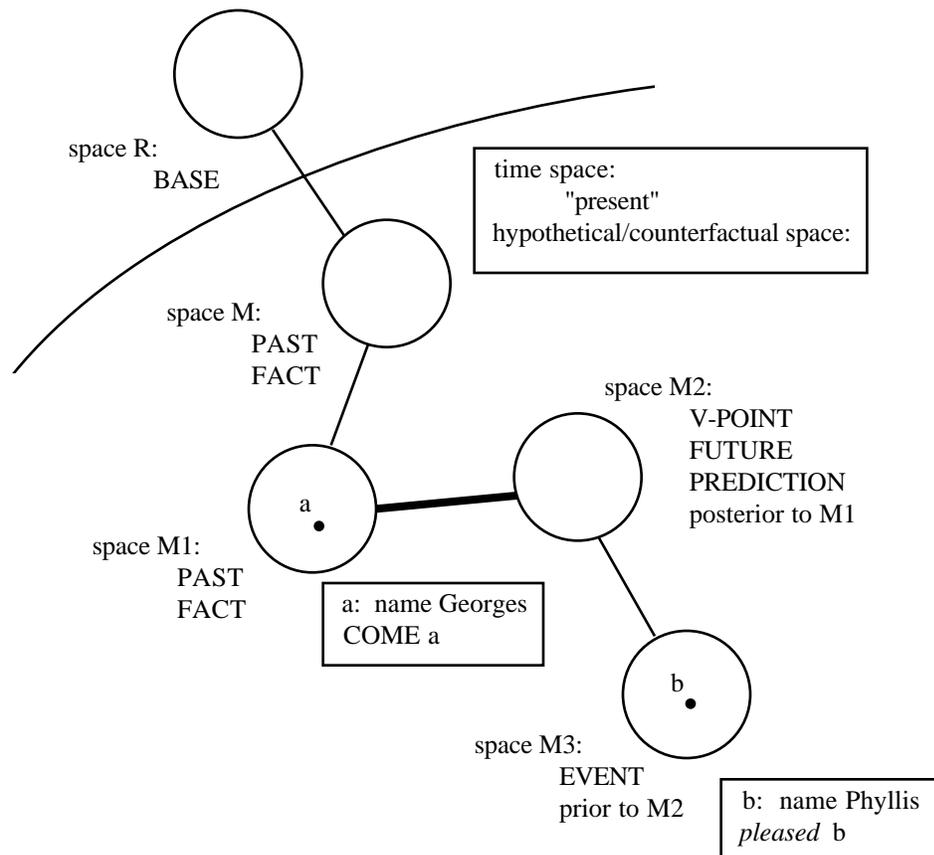
In reference to a plain past domain or a present or future domain, the interpretation of the Pluperfect is a counterfactual one. The interpretation of (5.32) results in the following space configuration. A non-PERFECT reading is assumed for the Pluperfect.¹⁰¹ A

¹⁰¹ The possibility of PERFECT readings for the counterfactual Pluperfect is not explored here.

PERFECT reading is assumed for the 'would have ___' construction.

FIGURE 5.21

'If George had come now/tomorrow,
Phyllis would have been pleased'



Again, as a matching condition in a counterfactual space which refers to the present or future, the PAST functions to block optimization of the apodosis; it also limits the type of apodosis which can be embedded in the counterfactual domain. The double PAST ensures that optimization cannot proceed. The temporal value of the PAST extends to express distance along the dimension of probability or actuality. The 'would have ___' construction also has special access properties in counterfactuals; it is accessed directly

from BASE. In this case, it encodes a double PAST FUTURE PERFECT access path.

Only the 'would ___' and 'would have ___' constructions may be embedded in the counterfactual domain. The PAST FUTURE 'would ___' construction is possible, although difficult to extract.

(5.33) On her last visit to the clinic, the doctor said that she will not have the baby until next week. If she had had the baby tomorrow (as first predicted), then she would be able to go to the party next week.

I would suggest that the PAST FUTURE is difficult to extract for the same reasons given for example (5.19). The PAST FUTURE requires a context which makes PREDICTION of an event from a PAST of PAST counterfactual V-POINT (rather than PREDICTION of the truth of the event) semantically and pragmatically felicitous.¹⁰² Another possibility is that the PAST FUTURE PERFECT is needed to encode an access path through a double PAST.

No other tense categories are possible in the apodoses, as shown in (5.34).

¹⁰² With the PAST FUTURE PERFECT, the event is not predicted, it is predicted to be true from some V-POINT. With the PAST FUTURE, the event itself is predicted.

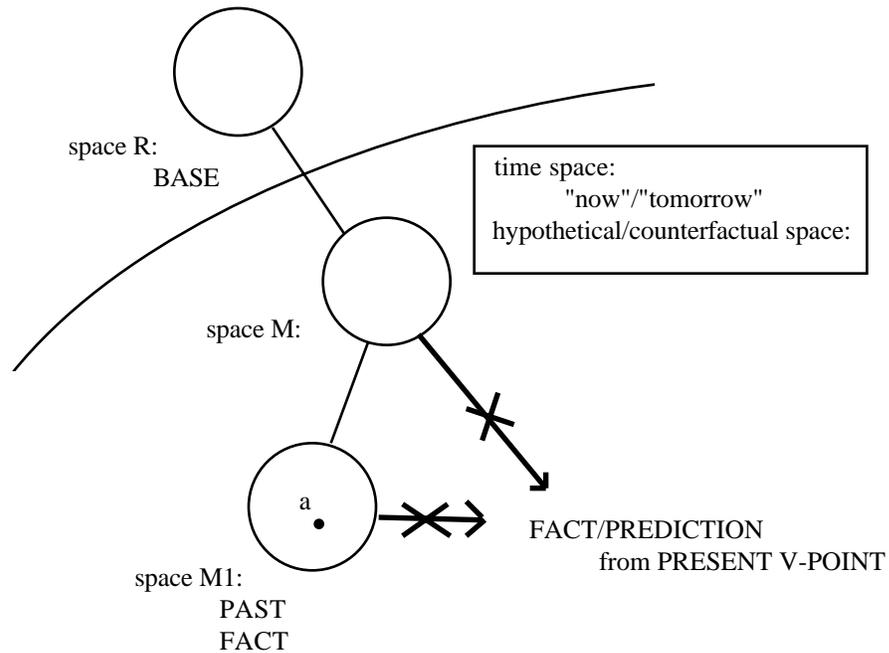
- (5.34) a. If George had come now/tomorrow, *Phyllis will be pleased.
- b. If George had come now/tomorrow, *Phyllis has bought a new dress for the occasion.
- c. If George had come now/tomorrow, *Phyllis bought a new dress for the occasion.
- d. If George had come now/tomorrow, *Phyllis had bought a new dress for the occasion.
- e. If George had come now/tomorrow, *Phyllis will have bought a new dress for the occasion.

The special properties of the counterfactual domain rules out any other tense combination in the apodoses, since there is no present/PRESENT space for them to build onto.¹⁰³ Neither the initial counterfactual space M, nor the embedded counterfactual space M1 can serve as an anchor point for the entire access path in the apodosis. This is diagrammed in Figure 5.22 below.

¹⁰³ Note again that the Pluperfect in the apodosis cannot build onto the structure set up for the protasis in the same way that ‘would’ constructions can. The Pluperfect requires a separate structure so that resultant state information does not optimize into the protasis structure. The same type of optimization does not occur with ‘would’ constructions, since they set up posterior rather than prior domains.

FIGURE 5.22

Embedding in the Counterfactual Domain



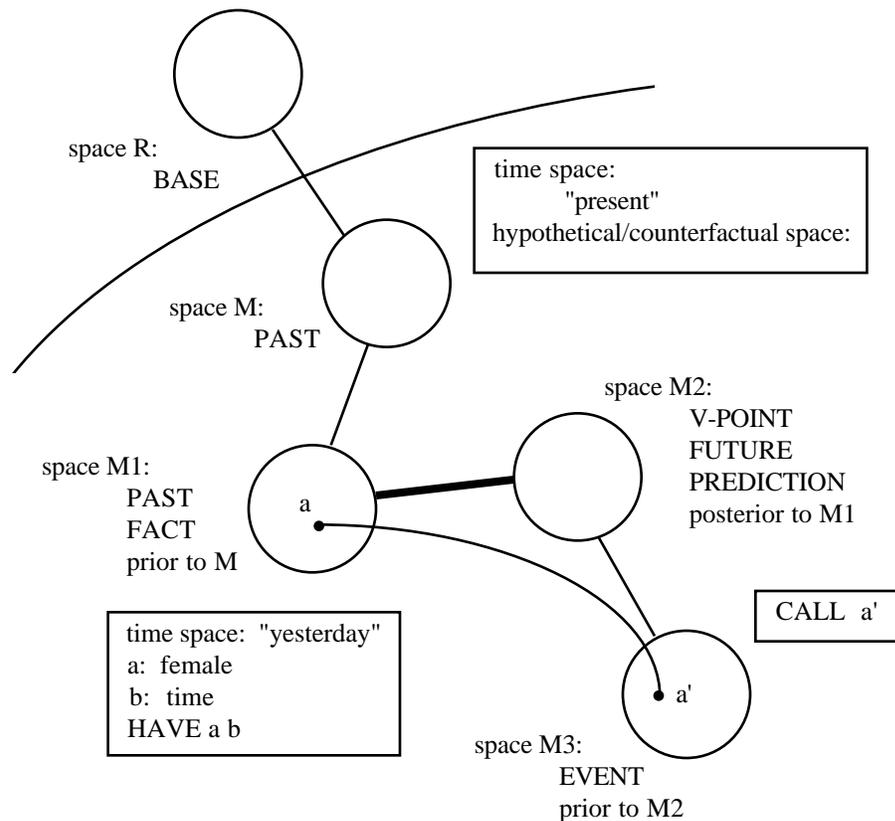
In Fillmore's analysis, the apodoses in examples (5.34) are ruled out because they have a non-unified epistemic stance. In the mental space configuration, the apodoses in (5.33) cannot be embedded in the counterfactual domain, since there is no space, no present, hypothetical "reality" for them to build on. Only the 'would' constructions, which encode PREDICTION from a PAST V-POINT, can be embedded in the counterfactual domain. 'Would' constructions may, of course, also be embedded in hypothetical domains.

The Pluperfect may also have a past counterfactual reading as in (5.35).

(5.35) If she had had time yesterday, she would have called.

Where the Pluperfect protasis refers to a past domain, the construction is most often ambiguous as to whether it encodes a past counterfactual or a PAST PERFECT (or PAST PAST) hypothetical. In the past counterfactual reading, I propose that the Pluperfect sets up a configuration of spaces as diagrammed in Figure 5.23.

FIGURE 5.23 'If she had had time yesterday, she would have called'
(PAST Counterfactual Reading)



Again the counterfactual domain has special properties, which limits the tense choice in the apodosis. Only 'would' constructions are possible and they are accessed directly from BASE.

5.8 The 'will' Future in Conditional Protasis

In this last section, we will consider the behavior of the English 'will' Future in the protasis of conditional constructions.

5.8.1 The 'will' Future and PRESENT Volition

The 'will' Future is most often inappropriate or unacceptable in the protasis of conditional constructions, as shown in (5.36a). Instead, the Simple Present is used with a future interpretation, as in (5.36b).

- (5.36) a. *If it'll rain tomorrow, I will buy an umbrella.
 b. If it rains tomorrow, I will buy an umbrella.

In the previous chapter, it was argued that the Simple Present (PRESENT) is appropriately used with a future interpretation in the protasis because with the PRESENT the event is construed as a FACT rather than a PREDICTION. In (5.36), the conditioned relationship is between the realization of an event, a FACT, and a PREDICTION which is made from the V-POINT in the hypothetical space where the FACT holds.

The hypothetical protasis may in fact be encoded in the 'will' Future in violation of "normal" tense restrictions in certain semantically restricted instances. In this section, we will look at three instances: where the 'will' Future expresses PRESENT volition, rather than PREDICTION; where the conditional relationship is an epistemic one; and in speech act conditionals.

As noted by Fillmore (1990) and Sweetser (to appear), one semantically restricted instance where the protasis is encoded by the 'will' Future, is where the 'will' Future is used in the sense of PRESENT volition. For example:

(5.37) If he'll write that book, he'll make a lot of money.

In (5.37), the 'will' Future is acceptable because the interpretation of the 'will' Future is a volitional one: borrowing Sweetser's paraphrase, "if he's just willing to write that book, if he agrees to write it".

Sweetser offers examples (5.38a) and (5.38b) as evidence that the protasis expresses volition rather than a true future.

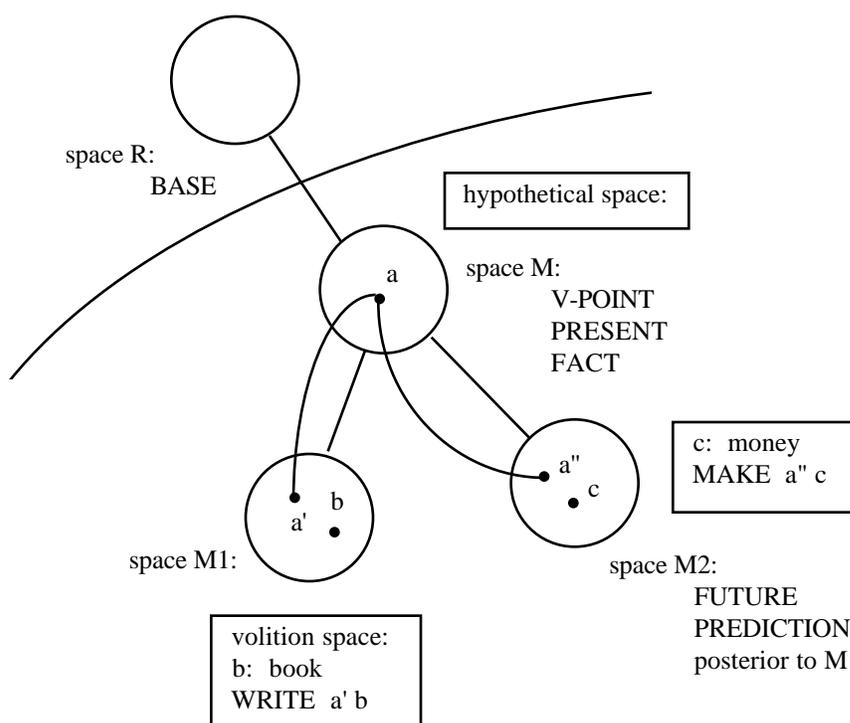
- (5.38) a. If he'll only write that book
 b. *? If it'll only rain tomorrow

Only the volitional reading can take 'only'.

Under the analysis offered here, the acceptability of the 'will' Future in (5.37) falls out automatically. As analyzed in chapter 4, the 'will' Future in English may encode either PREDICTION from PRESENT V-POINT (FUTURE of PRESENT), or PRESENT volition. Since PRESENT volition is FACT, even though the event itself is not, we would expect the 'will' Future to be acceptable in just those cases where PRESENT volitionality and not PREDICTION from a PRESENT V-POINT is expressed. This is just the case in (5.37).

In (5.37), the protasis expresses PRESENT volition. A FUTURE PREDICTION ('he'll make a lot of money') is made from the hypothetical PRESENT FACT space where the volition to write the book holds, rather than from a space where the writing of the book is asserted to hold. The interpretation of (5.37) is represented in Figure 5.24.

FIGURE 5.24 'If he'll write that book, he'll make a lot of money'



The hypothetical protasis sets up not just a single space, but a domain of spaces (a PRESENT space M and a volition space M1), which define the matching conditions which must be met in order for the space structure set up in the apodosis to map onto to speaker reality. The matching condition for the protasis of (5.37) is that the PRESENT volition to write a book holds from the V-POINT of speaker reality, in effect that the same complex space construction exists from the V-POINT of speaker reality. Given that these

matching conditions are met, that he has the volition to write the book, then the FUTURE PREDICTION optimizes. Note that the entire space structure set up for interpretation of the apodosis optimizes out of the hypothetical domain. It will update the configuration already built. The net effect is that the FUTURE PREDICTION anchors to the V-POINT of speaker reality.

Since the PRESENT FACT is volition, the PREDICTION that 'he'll make a lot of money' is conditioned on the willingness rather than the actual completion of the book. The mapping of PREDICTION onto speaker reality may happen now or in the future. In the reality domain, the PREDICTION in the apodosis holds from the point where mapping proceeds, where the volition to write the book holds.

The same freedom of tense choice is not available for the PRESENT volitional 'will' Future as for the PRESENT.

- (5.39) a. If he'll only write that book, then he is a rich man.
 b. If he'll only give me a million dollars, then I am a rich man.
 c. * If he'll only write that book, then he earned the advance Bantam
 Books paid him.

I argue that with the 'will' Future protasis, the restriction on tense in the apodosis is a semantic rather than a structural restriction. It is difficult to make a PREDICTION based on a volition. It is even more difficult to conclude a FACT based on a volition. Thus, we would epistemic conditionals to be unacceptable. A PRESENT is possible, as in (5.39), but it also serves as a kind of prediction. A PAST FACT in the apodosis is not possible, as shown by (5.39c). It is semantically difficult to conclude a PAST FACT from a

volition which cannot be confirmed. FACTual completion of events is what is needed for proper FACTual conclusions to be drawn.

5.8.2 PRESENT FUTURE Protasis and an Assumed Epistemic Stance

The 'will' Future may encode PRESENT volition or PRESENT FUTURE (PREDICTION from PRESENT V-POINT). In its PRESENT FUTURE interpretation, the 'will' Future is possible in the protasis only in very limited instances. One example offered by Sweetser (to appear) is given in (5.40) below.¹⁰⁴

(5.40) Speaker A: Don't worry. He'll certainly be better tomorrow.

Speaker B: Oh great! If he'll be better tomorrow, then (that means) he'll
go to the show and I shouldn't give this ticket away!

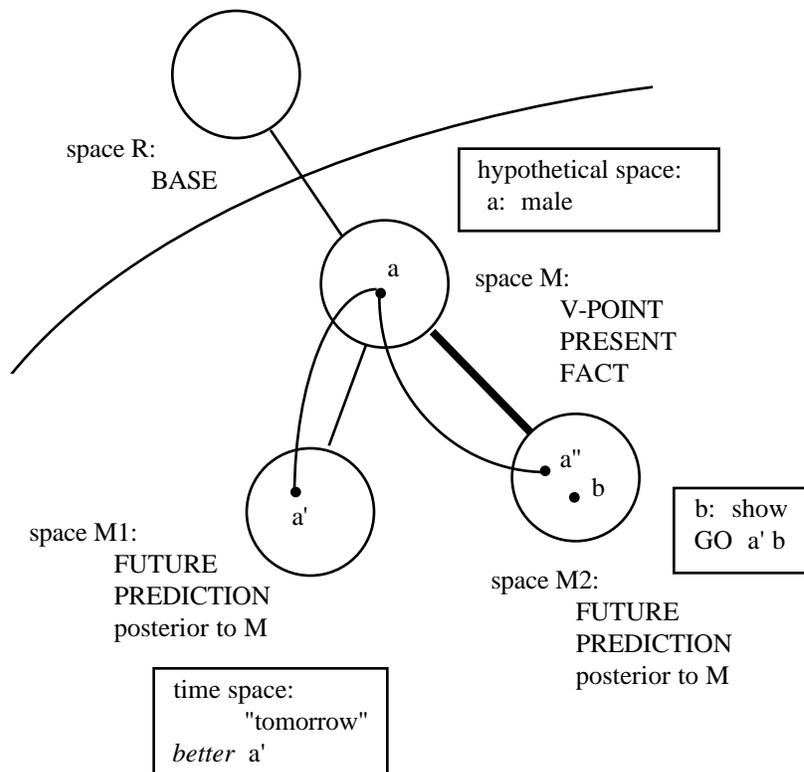
In Sweetser's analysis, the Future tense expressions 'he'll be better' and 'he'll go to the show' are present in content. The conditional relationship is between a present belief and a present conclusion. The conditional relationship is an epistemic one, between knowledge and a conclusion. Sweetser claims that the normal tense restrictions on conditionals are relaxed in this case because the conditional relationship is an epistemic one, and hence, the structure of embedding, in Sweetser's analysis the link between the protasis space and the apodosis space, is different from that of content level conditionals.

Under the mapping potential analysis, epistemic conditionals with 'will' Future

¹⁰⁴ This example is odd for many speakers and unacceptable in my own dialect.

protasis (PRESENT FUTURE) do not have a different structure than other content level or speech act conditionals. For (5.40), both PREDICTIONS will be built from the initial PRESENT hypothetical space, as in Figure 5.25.

FIGURE 5.25 'If he'll be better tomorrow, then he'll go to the show...'



What is different here is that the matching conditions have already been met by the preceding discourse. The protasis sets up a hypothetical domain which defines the matching conditions which must be met in order for the apodosis to optimize: the PREDICTION 'he'll certainly be better' must hold from the V-POINT of speaker reality. Since the PREDICTION that 'he'll certainly be better' has just been made by speaker A, the matching conditions have already been met by the preceding discourse. The statement

of speaker B is made with the assumption that the apodosis will optimize to speaker reality.

Semantically, a conditional relationship between a PREDICTION and a PREDICTION is odd. A PREDICTION as a matching condition is difficult to verify. A PREDICTION can be assumed, but there is no guarantee that the event will actually happen. Indeed, the 'will' Future is odd enough in (5.40) that Sweetser sets the example up with the matching conditions already met. The external epistemic stance is assumed (P); the actual truth of the protasis is assumed. It appears that even for speakers who allow the 'will' Future in the protasis, in its non-volitional reading, an actual or assumed epistemic stance or assumed matching conditions are required.

An assumed epistemic stance may also be taken for politeness purposes, as in (5.41).

(5.41) If it will bother you, I won't open the window.

In the most polite case, the speaker assumes that opening the window indeed will bother the hearer. Setting up the information in a conditional space structure, however, gives the hearer an opportunity to provide contradictory information in the "reality" domain, which would prevent optimization of the apodosis. In this case, the speaker may in fact open the window and at the same time keep the integrity of his word.

An assumed epistemic stance may also be taken for speech act conditionals, as in (5.42).

- (5.42) a. If it will satisfy you to know it, May is on her way here
 b. If you will be going to Paris, why not buy your ticket today?

In speech act conditionals, the performance of an in-process speech act (the apodosis) is presented as being conditioned on some factor expressed in the protasis ('if clause'). The speech act of giving the information in the apodosis of (5.42a) or making the suggestion in the apodosis of (5.42b) is dependent on the PREDICTION made the protasis. In Sweetser's analysis, the conditional relationship is not a content level one, hence the normal tense restrictions are not in force.

Under the analysis presented here, 'will' Future speech act conditionals have the same structure as other 'will' Future conditionals. The apodosis is embedded under the initial hypothetical space. Speech act conditionals are handled in the same manner as content level and epistemic conditionals. The hypothetical space defines the matching conditions which must be met in order for the structure of the apodosis to optimize. In (5.42a), the speech act of giving the information 'May is on her way here' may optimize successfully to speaker reality if the matching conditions set up by the protasis are met (if it's true that 'it will satisfy you to know it'). In (5.42b), the speech act of making the suggestion 'why don't you buy your ticket today'" may optimize successfully to speaker reality where the matching conditions set up by the protasis are met (if it's true that 'you will be going to Paris'). The hypothetical domain of the conditional structure is used to set up prerequisite felicity conditions for the speech act which must be fulfilled in order for the speech act to be successful and non-defective. Utterances such as (5.42) are likely to be made with the assumption that the matching conditions will be met, and thus that the speech act will be successful. The epistemic stance is assumed or actual identification with the truth of the protasis.

In this section, we have looked at certain cases where the 'will' Future can occur in conditional protasis in violation of "normal" tense restrictions: where the Future expresses PRESENT volition to do a future action, rather than PREDICTION; and in conditionals with a pre-met matching condition or assumed external epistemic stance. I argued that the 'will' Future in its non-volitional reading is appropriate in the protasis where the epistemic stance is assumed. Under the analysis presented here, content level, epistemic, and speech act conditionals with 'will' Future protases have the same embedding structure and are handled by the same mechanisms.

5.9 Conclusion

In this chapter, we have examined in detail the properties of the space configurations set up for the interpretation of conditional constructions. The detailed analysis of the role of tense markers in setting up space structures which has been given in this dissertation, has provided a more detailed, fine-grained method and a more precise set of tools for characterizing the structure of conditional constructions.

This chapter has shown how the mapping potential analysis proposed in chapter 4 and the notion of matching (Fauconnier 1990, to appear) may be used to account not only for non-canonical tense usage in the protasis, but also for fine grained semantic effects of tense in the apodosis. The mapping potential analysis motivates the use of conditional structures to set up felicity conditions for speech acts and provides a more general characterization of conditional constructions which encompasses the three types of conditionals proposed by Sweetser (1990). In this chapter, we have also investigated in

detail the embedding structure, as well as access, of the spaces set up for both hypothetical and counterfactual conditional constructions. It was argued that all constructions with PRESENT and PRESENT FUTURE protases have the same embedding structure. For 'will' Future protases, it was argued that the 'will' Future in its non-volitional reading is possible in situations where there are pre-met matching conditions or where the external epistemic stance is assumed (P). For Simple Past and Pluperfect protases, hypothetical and counterfactuals constructions were analyzed as having different embedding structures. With hypotheticals, the apodosis reflects an access path from the initial hypothetical space. With counterfactuals, the apodosis reflects an access path directly from BASE. I claimed that the tense restrictions on the apodoses of counterfactual constructions is a result of the special properties of the counterfactual domain which not only blocks optimization, but also strictly limits the way and type of apodoses (access paths) which can be embedded under the initial space in the counterfactual domain.