

# ENGLISH PAST AND PERFECT AS SEMANTICALLY VACUOUS MOOD MARKERS

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This paper presents an explanation for the observation that in some contexts the English simple past appears not to be interpreted as semantic past tense. We will propose (i) that English sentences obligatorily carry mood, (ii) that the English simple past is lexically ambiguous between expressing tense or mood, and (iii) that the semantic function of mood is to facilitate modal subordination.

## 1. Introduction: The Puzzle

It is a well-known fact about English that in certain contexts – for instance, in subjunctive conditionals – past tense or perfect markers appear not to be interpreted as semantic past tense or perfect. For instance, in (1a) the finite verbs in antecedent and consequent are marked for the simple past. However, the conditional cannot receive an interpretation according to which the leaving of Peter took place in the past. Something similar can be observed for the perfect in (1b) as well.

- (1) a. If Peter left in time, he would be in Amsterdam this evening.
- b. If Peter had left in time, he would have been in Amsterdam this evening.

There exists numerous proposals explaining this observation. They can be classified into two groups. According to a first group (cf. Ippolito 2003) the past (or perfect) in these sentences carries its standard meaning, but it contributes this meaning in an unexpected way to the meaning of the sentence. I have argued elsewhere (Schulz 2007) that these approaches have systematic difficulties in accounting for the truth conditions of subjunctive conditionals. Alternatively (cf. Iatridou 2000) it has often been proposed that the simple past (or the perfect) has a mood/modality meaning in subjunctive conditionals. The main problem of approaches along this line is that they miss formal precision. In this paper we will sketch a proposal along the second line of approach that is fully formalized.<sup>1</sup>

## 2. The solution: the English mood system

To account for the described observation we propose that English assertive sentences obligatorily carry mood. The simple past and the past perfect are ambiguous between

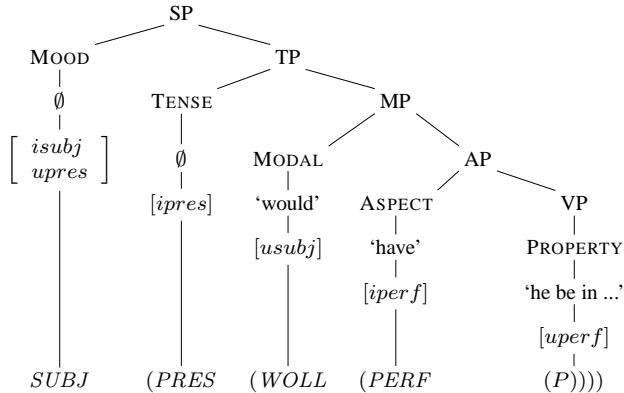
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<sup>1</sup>For more details see Schulz 2007.

a temporal/aspectual meaning and a mood meaning. In subjunctive sentences the simple past and the perfect are interpreted as mood markers, while in normal simple sentences they carry their standard temporal/aspectual meaning. This means that the proposal has to consist of a syntactic and a semantic part. On the side of syntax we have to describe the logical form sentences like (1a) and (1b) are associated with. On the side of semantics we have to provide a theory of interpretation for these logical forms.

## 2.1. The syntax

We propose that English sentences come with a mood projection that scopes over the tense projection. We distinguish three mood operators that can occur in the head of the mood projection: an indicative mood, a subjunctive mood, and a counterfactual mood. Following others we assume that the tense inflection on finite verbs is semantically vacuous. The function of the inflection is to signal that the verb carries an uninterpretable feature. This feature has to be checked against the interpretable feature of a covert temporal operator in the head of the tense projection. Verbs marked by the simple past are proposed to be lexically ambiguous. They can either carry an uninterpretable feature demanding a past tense operator or an uninterpretable feature demanding a subjunctive mood operator. Similarly the auxiliary *have* can either be interpreted as carrying an interpretable perfect feature or an uninterpretable feature that, together with a past tense inflection, demands the counterfactual mood. For illustration we give below one of the syntactic analyses we predict for *he would have been in Amsterdam*.



As result of the lexical ambiguities we assume, sentences involving the simple past or the perfect are assigned more than one logical form. For instance, a sentence like *Peter left in time* can either be interpreted as  $IND(PAST(Peter.leave.in.time))$  or  $SUBJ(PRES(Peter.leave.in.time))$ .

## 2.2. The semantics

A central challenge of approaches that propose the simple past to be lexical ambiguous is to explain why in simple sentences the simple past is always interpreted as tense marker. We can explain this observation in terms of the semantics we assume for the mood operators. This semantics predicts that simple sentences giving information about the actual world that carry the subjunctive mood are semantically anomalous. Hence, the simple past has to be interpreted as semantic past tense.

To be more specific, we propose that the semantic function of the English mood is to facilitate modal subordination. Modal subordination refers to the ability of English sentences to introduce or refer to hypothetical contexts. Let us introduce some terminology. We call the context where information about the actual world is stored  $C$ .  $T$  is the context a sentence  $\psi$  is about (if the sentence is about a hypothetical context, then  $C \neq T$ ).  $F$  is the context a sentence  $\psi$  gives information about (if  $\psi$  introduces a hypothetical context, then  $F$  may differ from  $T$ ). Now we propose that the mood operator tests whether a certain relation holds between the contexts  $C$  and  $F$  after update with the sentence in scope of the mood operator. If the relation holds, then the update is accepted, otherwise it is rejected. For the counterfactual mood we propose that it tests whether  $F$  is inconsistent with the facts of  $C$ , the subjunctive mood tests whether  $F$  is inconsistent with the expectations of  $C$ , and the indicative mood tests whether  $F$  is consistent with the expectations of  $C$ . Expectations are locally defined on the level of possible worlds. The expectations of a world are how you expect the world to develop into the future in the normal course of events. This approach then predicts that simple sentence about the actual world cannot stand in the subjunctive mood, because for such sentence we have  $C = F$ . But then the subjunctive mood would demand that the expectations of  $C$  deviate from what you believe to be the case in  $C$  - which is impossible.

## 3. Adding a diachronic perspective

It is well-known that similar unexpected uses of past tense markers can also be observed in other languages. How to explain this cross-linguistic pattern? There appears to be not only a cross-linguistics synchronic pattern, but also a diachronic pattern: past tense markers systematically develop into markers of a subjunctive mood (Dahl 1997). Past tense markers start to imply counterfactuality in subjunctive conditionals. Later on the counterfactual inference becomes obligatory and the temporal meaning gets lost. The sentences can then also be used with reference to the present or the future. Next the meaning changes from inconsistency to unexpectedness and the marker appears also in other constructions besides subjunctive conditionals. Now, a new past tense marker can develop into a marker of counterfactuality. Such a diachronic circle can explain the cross-linguistic pattern, but also language specific differences. Different languages may be in different stages of the circle. Interaction with other processes in this language can influence the particular

pathway taken by a language.

The most critical point in proposing such a diachronic circle is to explain its beginning: why should a past subjunctive conditional start to imply counterfactuality? Using the local notion of expectations introduced in Schulz 2007, we can predict that the combination of past tense and subjunctive mood implies counterfactuality simply by its semantics. However, then we also predict that one cannot use past subjunctive conditionals in case one still thinks it possible that the antecedent is true. Such conditionals exist, even though rarely. Nevertheless, I doubt that we can explain these examples as language misuses. An alternative approach would be to use a global notion of expectations that compares the worlds in a context according to their normality (cf. Veltman 1996). This would allow for past subjunctive conditionals in case you still consider the antecedent possible. However, now we have to tell a different story about why past markers develop into mood markers. An idea followed by many authors is that counterfactuality starts out as conversational implicature of past subjunctive conditionals. A problem these approaches often have to face is that, as far as they are formally precise, they stop with the inference that the speaker does not know that the antecedent is possibly true. To improve on such approaches one can adopt a formalization of implicatures proposed in Schulz and van Rooij 2006 and propose that the counterfactual inference is an effect of competence maximization. Competence strengthens *the speaker does not know the antecedent to be possible to the speaker knows the antecedent not to be possible*.

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