The use of conditionals in argumentation: a proposal for the analysis and evaluation of argumentatively used conditionals
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I. Introduction

In argumentation, speakers often make use of conditionals. When someone wants to defend the claim that a certain course of action must be followed, he may support his claim by applying a conditional sentence to sketch the beneficial consequences that this course of action will have, as in example 1:

1. We should buy that house. If we move there, we will have plenty of space for everyone, you will finally be able to have the garden you always wanted and we won't have to escort the children to school, they can walk by themselves.

Alternatively, a speaker could use a conditional to indicate that he only wants to be committed to his point of view under certain conditions, as in 2:

2. I don't know whether I will be able to join you on that trip. But if we go together, we could go by car. I am sure my parents won't mind me using my mom's car.

Or a speaker could use a conditional to ponder on scenarios that were once within reach but are now ruled out, as in 3:

3. If only I had accepted that job as a masseuse with Google, then I would not have to worry about anything anymore. They offered me shares, and those would have been worth a fortune by now.

As early as 1989, Alec Fischer called on argumentation theorists to pay attention to suppositions. In his article ‘Suppositions in Argumentation’ he pointed out that the use of suppositions had been neglected, since attention had been merely directed toward assertions: sentences in which propositions are presented as true. In suppositions, Fisher argues, propositions are typically not presented as true, they are merely supposed ‘for the sake of argument’. They are supposed to be true for the purpose of considering their implications. Fisher alerts argumentation theorists to a rather undesirable consequence of the negligence of the use of suppositions in argumentation: very common ways of arguing a case remain undiscussed. Suppositions play an important
role in mathematics, theology, philosophy and science, where a claim can be proven to be false by supposing it to be true and showing that this supposition would eventually lead to a falsity or even a contradiction. But also in more ‘everyday’ reasoning, suppositions can be employed, as is represented by the following example of Fisher (1989: 403), whereby the police are attempting to solve a case:

4 Suppose Smith was the burglar. In that case his finger-prints will be on the stolen jewelry.

It is for this reason that Fisher had dedicated an entire chapter to suppositions in his book The Logic of Real Arguments (1988) and he challenges fellow argumentation theorists to do the same.

I think Fisher’s call can be seen as an attempt to place more emphasis on the use of conditionals in argumentation. I would not hesitate to put on par what Fisher calls suppositions with antecedents of conditionals, since typically the proposition expressed in the antecedent of a conditional also is not asserted. If we take a look at example 1, the speaker does not assert that ‘we move there’, he just supposes this proposition for the sake of drawing out the consequences. In a similar manner, in example 2 it is supposed that ‘we go together’ and furthermore in example 3 that ‘I had accepted that job as a masseuse with Google’. What suppositions and the antecedents of conditionals have in common is that the consequent (or consequences, in case of suppositions) is only ‘asserted’ conditionally: it should be considered within the scope of the situation sketched in either the antecedent, or the initial supposition. That is why I would place together suppositions and their expressed implications with conditionals (although I might thereby be stretching the meaning of the word ‘conditional’).

Despite Fisher’s plea, the field of argumentation theory has not offered a systematic approach for the analysis and evaluation of conditionals used in argumentation. This does not mean, however, that conditionals have been deprived of scholarly attention. In the field of logic, discussion about the meaning of the connective ‘if-then’ and the circumstances under which an if-then-statement is true began toward the end of the 4th century BC. During that period, Philo of Megara tried to capture the essence of the ‘if-then’ connective in his statement that a true conditional is one that does not begin with a truth and end with a falsehood. This view immediately gave rise to a variety of critical responses. Interestingly enough, when during a later period (1879)
Frege described the circumstances under which an ‘if-then-sentence’ is true – without having studied and without having known the classical approaches to conditionals – this description turned out to be equal to the one offered by Philo of Megara and incited the same kind of criticism Philo of Megara’s statement received. Logical approaches to conditionals can be seen as alternative ways of coping with this criticism.

A second field in which if-then-sentences have been studied thoroughly is linguistics. In this area, the study of conditionals primarily centered on the question of how conditionality is expressed in language. Linguists do not only describe and categorize different ways to express conditionality, but they also try to explain why at times conditional markers are used in cases where there seems to be no conditionality involved. A famous example of such usage of the conditionality marker ‘if’ is the so-called Austin conditional: ‘If you are hungry, there are biscuits on the sideboard’. Here ‘there being biscuits on the sideboard’ is made conditional on ‘you being hungry’, although the biscuits will be there whether the addressee is hungry or not.

Given the support of these two longstanding traditions in the study of conditional sentences, I now want to answer Fisher’s appeal and take up the gauntlet by giving an outline of a model for the analysis and evaluation of argumentatively used conditionals. In this undertaking, I take a pragma-dialectical approach to argumentation. Characteristic of this approach – developed by Van Eemeren and Grootendorst – is that argumentation is seen as a means to resolve a difference of opinion between interlocutors (Van Eemeren & Grootendorst 1992, 2004). In their view, argumentation comes about when one interlocutor puts forward a standpoint and another interlocutor questions whether this standpoint is correct or disagrees with it. It is through argumentation that the participants in the discussion try to resolve this difference of opinion.¹

In the study of argumentation, pragma-dialectics aims at the socialization, dialectification, functionalization and externalization of the

¹ These interlocutors take upon themselves the roles of protagonist and antagonist of the standpoint under discussion. They do not need to represent ‘real people’ – but should be seen as roles that need to be fulfilled in order to let a discussion take place. One person can both fulfil the role of protagonist and antagonist, for instance in a ‘dialogue intérieur’ regarding a certain point of view (Van Eemeren & Grootendorst 2004: 120).
subject matter. Socializing the subject matter of the study of argumentation is realized by taking argumentation to be part of a dialogue between a protagonist – defending a point of view – and an antagonist – questioning this point of view. As a result, successive argumentative moves by the protagonist (for instance in a written piece of argumentation) are regarded as responses to (expressed or expected) criticism from the antagonist, aimed at resolving the difference of opinion by convincing the antagonist of the acceptability of the standpoint that is under consideration.

Dialectifying the subject matter is achieved by specifying which moves are prohibited, which are allowed and which moves are even compulsory in the process of resolving the difference of opinion. As a result, the discussion – the complex of moves executed by the protagonist and antagonist – can be regarded as a rational way to resolve a dispute concerning a specific point of view. In pragma-dialectics, the moves needed or prohibited are specified in the rules for a critical discussion. For instance, regarding the closing stage of a discussion, rule 14 states that if the antagonist has conclusively attacked the protagonist’s initial standpoint, the protagonist then has to retract this standpoint. If the protagonist succeeds in conclusively defending his point of view, the antagonist in turn has to retract his doubt (2004:154). What counts as a conclusive defence or a conclusive attack is specified by other rules, and further rules specify the moves in other stages of the discussion.

Functionalizing the subject matter is achieved not by just reflecting on the various contributions to the discussion as sentences, but also taking into account how those sentences contribute to some specific aim. The sentences uttered in the process of argumentation are taken to fulfil a function in the resolution process. For instance, the sentence ‘It is a beautiful day today’ could function as the main standpoint under discussion, if someone utters ‘It is a beautiful day today! The sun is shining and it is not too cold.’ The same sentence could also function as an argument in support of a standpoint, as in ‘We should go out, because it is a beautiful day today’. It could even function as an argument and a (sub)standpoint at the same time, as in ‘We should go out, because it is a beautiful day today. The sun is shining and it is not too cold.’

Essential to the determination of the function that different sentences expressed in a discussion fulfil, is to treat them as speech acts. The notion ‘speech act’, introduced by John Searle, conveys the idea that through language a speaker does not just express a proposition,
but simultaneously expresses his stance towards this proposition. The proposition ‘the window is open’ can, for instance, be expressed in an assertion – ‘[I think] the window is open’ – or in a question – ‘Is the window open?’. The difference between the two lies in the commitments the speaker has incurred by uttering either speech act. In the case of an assertion, the speaker can be committed to the truth of the proposition ‘the window is open’, whereas in the case of a question this commitment is absent (be it that the speaker becomes committed to other things, like ‘being genuinely interested in the answer’). Functionalization of the subject matter results therefore in focusing on the commitments the participants in the discussion are subject to.

The commitments of the participants in a discussion play an important role as well in the *externalization* of the subject matter of the study of argumentation. The pragma-dialectician is not so much interested in the state of mind of the interlocutors, rather the focus is on what the interlocutors have expressed through language. ‘Acceptance’, for instance, is not studied as a psychological state, but rather is something taken to be achieved when an interlocutor expresses his agreement with – and hence commits himself to – a certain proposition (irrespective of the actual state of belief of this interlocutor).

The theoretical background provided by the pragma-dialectical theory of argumentation allows me to specify the conditionals that will be the subject of this thesis. As is indicated in the subtitle, I shall not strive for an exhaustive overview of conditional sentences that may fulfil a role in a discussion. A conditional like ‘If you don’t mind, I would like to finish my line of reasoning before you come up with your remarks’ may be very useful to let the discussion run smoothly, but that kind of conditional will not be discussed here. I shall limit the discussion to ‘argumentatively used’ conditionals, that is, to conditionals that

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2 Of course, I provide here just a very rough and strongly simplified sketch of speech act theory. For a complete overview of Searle’s theory see his book *Speech Acts* (1969).

3 Since the terms ‘standpoint’ and ‘argument’ – although clearly defined in pragma-dialectics – are not so commonly known and are not easily understood by individuals who are not familiar with the field, I have decided to use more colloquial terms to indicate ‘something in need of defence’ (claim, point of view) and ‘something put forward in defence of another statement’ (premise, reason, ground).
function either as a standpoint or as an argument: as something that is in need of defence or as something put forward in defence of another statement.¹

In the search for a model for the analysis and evaluation of argumentatively used conditionals, I start with what may have been the first known stipulation about the soundness of if-then-sentences, namely the statement by Philo of Megara. In chapter 2, I describe how this stipulation – that some time after Frege’s ‘re-invention’ became known as the definition of material implication – formulates the circumstances under which an if-then-sentence is true. The chapter continues with the main problems that have traditionally been associated with the definition of material implication and the logical operations of ‘contraposition’, ‘hypothetical syllogism’ and ‘strengthening the antecedent’, all of which are strongly linked to this definition. What then follows is a description of the different logical approaches to conditionals that have been formulated in response to the above mentioned problems. The question is then raised as to whether the definition of material implication should be discarded as a tool for the evaluation of conditionals because of these problems, or whether its use should just be restricted to the unproblematic instances.

Chapter 3 aims to find a way to differentiate between conditionals that are and conditionals that are not problematic with regard to the definition of material implication. The starting point in making this distiction revolves around the various classifications of conditionals, all of which stem from the linguistic tradition. These classifications are grouped under two more or less commonly acknowledged variables: the degree of hypotheticality of the antecedent and the type of connection between the antecedent and the consequent of a conditional. After a description of the different classifications, I discuss whether these classifications make it possible to unequivocally distinguish between conditionals that are unproblematic and conditionals that are problematic with regard to the definition of material implication.

In chapter 4, the definition of material implication and the logical operations that are associated with it, are placed within the context of argumentation. It will be argued that this definition and these logical operations are unproblematic if their use is restricted to one particular category of conditionals: conditionals that function as a connecting premise in an application of either the modus ponendo ponens or the modus tollendo tollens type of reasoning. Furthermore, it will then be explained that conditionals can only function as such if they possess certain characteristics and will only be applied in this way if it does not
lead to clashing commitments for the protagonist. The problems associated with the definition of material implication can all be explained by showing that the conditionals used in the counter-examples either do not possess the necessary characteristics or will lead to clashing commitments when put to use. The chapter finishes with a proposal for the evaluation of conditionals functioning as a connecting premise.

In chapter 5 and 6 other argumentative functions that conditionals can fulfil are discussed. Chapter 5 lists various ways to put forward a standpoint under a certain condition and then explains what a reasonable follow-up would be on such conditionalized standpoints. Chapter 6 deals with conditionals that are a constituent of an argument scheme. In the field of argumentation theory there is no consensus about the precise description of the various argument schemes nor is there agreement about the number of argument schemes to be discerned. The discussion in this chapter is therefore only tentative. It is restricted to conditionals as constituents of pragmatic argumentation, of dilemma’s, of arguments from authority and of arguments from example. Hopefully, the analysis and evaluation of conditionals which function as a premise in those schemes will give an indication as to how conditionals can be treated which function as constituents of other argument schemes.

Before ending this introduction a few terminological remarks are in order. The term ‘conditional’ or ‘conditional sentence’ will be used in the broadest sense of the word; I do not restrict the usage of this term to a particular class of ‘sentences under a certain provision’ – as some theorists in the field of conditionals tend to do.4 I prefer to use the term conditional over the term ‘if-sentence’ because in the English language (as well as in many others) there are more ways to express conditionality and such sentences can be used argumentatively just as well. For the same reason, I prefer the term ‘antecedent’ to the term ‘if-clause’ and the term ‘consequent’ to the term ‘main clause’, although I do realize that the proposition expressed in the antecedent need not chronologically precede the proposition expressed in the consequent. The terms ‘protasis’ and ‘apodosis’ are not used because they are less commonly applied.

4 Dudman for instance exclusively uses the term *conditional* for sentences like ‘If she misses the bus this evening, the countess will walk home’, calling sentences like ‘If Socrates is a man, he is mortal’ *compounds* (see section 3.2 of this thesis for an explanation of those different categories).