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Toulmin's modal qualifiers: "probably" *Cualificadores modales en Toulmin: "probablemente"*

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ABSTRACT

In *The Uses of Argument* (1958) Stephen Toulmin unleashes a fierce attack against formal logic. For his attack to work, modal qualifiers like "necessarily", "possibly" and "probably" when occurring in natural language arguments do not mean what formal logicians take them to mean but have another semantics. Toulmin gives a pragmatic account of this semantics in which what these modal qualifiers mean is equivalent to what they are used to do. I will defend Toulmin's account of "probably" as an account of the pragmatics of "probably", but uphold Searle's objection that taking this as an account of their semantics commits a speech act fallacy. Thus I claim that Toulmin's attack on formal logic fails; in fact, by virtue of confusing the pragmatics of modal qualifiers with their semantics, he further confuses the logical question of whether one statement follows from others with the practical question of what is required to justify the use of a modal qualifier in a given context, and thereby does not so much attack formal logic as completely change the subject. The standards that justify the use of a modal qualifier may be "field-dependent" but the standards for "following from the premises" are not.

KEYWORDS: Ennis, modal qualifiers, probability, speech act fallacy, Toulmin.

RESUMEN

En *The Uses of Argument* (1958) Stephen Toulmin emprende un ataque contundente contra la lógica formal. Para que su ataque sea efectivo, los calificadores modales como "necesariamente", "posiblemente" y "probablemente" empleados en el lenguaje natural no deberían significar lo que los lógicos piensan sino responder una semántica muy distinta. Toulmin ofrece una caracterización pragmática de su semántica en la que lo que tales calificadores modales significan equivale al uso que se les dé. En este artículo defenderé la caracterización que Toulmin ofrece de "probablemente" como una caracterización adecuada de la pragmática de "probablemente" pero sostendré asimismo la objeción de Searle de que al considerar tal caracterización como una semántica adecuada se incurre en la "falacia del acto de habla". Por ello, concluyo que el ataque de Toulmin a la lógica formal resulta fallido. De hecho, al confundir la pragmática de los calificadores modales con su semántica, confunde a su vez la cuestión lógica de si un enunciado se sigue de otros con la cuestión práctica de qué se necesita para justificar el uso de un calificador modal en un contexto dado, por lo que, en realidad más que un ataque a la lógica formal, su propuesta supone un cambio radical de tema. Los estándares que justifican el uso de un calificador modal podrán ser "dependientes del campo" pero los estándares que determinan "qué se sigue de una premisa" no lo son.

PALABRAS CLAVE: cualificadores modales, Ennis, falacia del acto de habla, probabilidad, Toulmin.

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1. INTRODUCTION

In *The Uses of Argument* (1958) Toulmin unleashes a fierce attack against formal logic. For his attack to work, modal qualifiers like "necessarily", "possibly" and "probably" when occurring in natural language arguments do not mean what formal logicians take them to mean (e.g. where "necessarily" is taken to mean the necessity of a consequence relation) but have another semantics; if this is not the case Toulmin succeeds only in talking past the concerns of formal logic entirely.

In this paper I will discuss Toulmin's views on the meaning of the modal qualifier "probably." It will be seen that Toulmin identifies this meaning (as with all modal qualifiers) with a pragmatic force, namely that of guarded assertion. (I will not go into any detail about why he reaches this conclusion in this paper—my interest here is the evidence he adduces in favour of his account after proposing it.) Effectively this makes modal qualifiers a modification of the utterance-meaning rather than the sentence-meaning, and (although Toulmin does not use the framework of speech act theory) analyses the qualifiers' meanings in terms of how their occurrence in speech affects the meaning of the speech act performed. This is already a problem with regard to mounting an attack against logic, because logic works with sentence-meaning, with the meaning of what is asserted rather than the utterance-meaning, the meaning of the speech act that asserts it with any particular force. However, it is in Toulmin's favour that at least speech acts can be said to have a meaning; the pragmatic account – that adding a modal qualifier affects the meaning of the speech act – is at least intelligible.

In general there are two ways in which a word may influence the meaning of a speech act, because the meaning of a speech act is a function of two things – its illocutionary force and its propositional content – and either of those may be affected by the occurrence of a word. For example, the speech acts committed when I say "I assert that it will rain this evening" and "I assert *guardedly* that it will rain this evening" have the same propositional content (that it will rain this evening) but nonetheless differ in meanings because asserting and asserting guardedly are different forces.

Anticipating the arguments of the next section, Toulmin's view will be that the occurrence of the word "probably" amounts to an indicator of the illocutionary force of guarded assertion and is not part of the propositional content. Again, Toulmin does not use the term 'illocutionary force' but only 'pragmatic force', but it works out as the same

thing, namely as publicly expressing a level of commitment. In short, for Toulmin, saying "It will probably rain this evening" performs the same guarded assertion as "I assert guardedly that it will rain this evening" and its propositional content is once more that it will rain, and not, as the more orthodox view that Toulmin is reacting against would have it, that there is a certain probability of rain. The relation between the words "probably" and "probability" is not, Toulmin thinks, as direct as the orthodox view supposes; in particular, no interpretation of probability, either a frequency view or a relational view, is part of the meaning of "probably." I will deny this: I will say that the meaning of "probably" is always a way of talking about a probability, but that we do use such sentences as a way of making guarded assertions, and the pragmatics of the two cases differ, as we will see when we consider how to disagree with "It will probably rain this evening." But I maintain that the difference is only a pragmatic one and not a matter of semantics, and therein lies the fatal flaw of Toulmin's whole work.

Returning to the account of "probably", if it is correct then the meaning of the speech act performed by saying "It will probably rain this evening" will differ from the meaning of the speech act performed by saying "It will rain this evening" precisely as the meaning of the speech act performed by saying "I assert guardedly that it will rain this evening" differs from the meaning of the speech act performed by saying "I assert that it will rain this evening," and it is in Toulmin's favour that this would be a genuine difference in (utterance-)meaning. There is nothing wrong with the general idea of getting a different meaning by modifying the force or treating certain words (typically these words are illocutionary verbs) as modifiers rather than as part of the propositional content.

However, continuing in outline my criticism of Toulmin's account, although I am prepared to admit that we might say "It will probably rain this evening" as a way of guardedly asserting that it will rain this evening, I deny (by upholding a charge by Searle that it commits a speech act fallacy) that this is a possible account of what saying "It will probably rain this evening" *means*. The problem, as Searle points out and will be discussed in detail later, is that if "probably" effectively means to guardedly assert, then the occurrence of "probably" in past tense sentences (for example) would imply an act of guarded assertion in the past, and it does not. The kind of linguistic evidence Toulmin gives for his account is ambiguous between being evidence for the qualifier's semantics or its pragmatics, and since I believe that his account fails as an account of the semantics of modal qualifiers but that his evidence does in fact have some point, I maintain that it is an account of qualifiers' pragmatics only. Unfortunately for Toulmin, this effectively

invalidates his entire case against formal logic.

To recap, I will defend Toulmin's analysis as a correct analysis of one use of the word "probably" and as part of a correct account of the *pragmatics* of this word, but I deny that this is the only use and so incomplete as an account of pragmatics, and, what is more to the point, I will defend Searle's objection that advancing this account as an analysis of the *semantics* of the word commits a speech act fallacy. I will not be saying too much on what I think "probably" actually does mean, but I suggest, without arguing for it in any detail beyond arguing that Toulmin's objections do not refute it, that there is such a thing as an objective probability that is being referred to in all the cognates of the words "probably," "probable", and "probability", which objective probability I interpret as a relation to all¹ the evidence.

Toulmin's attack on formal logic founders on failing to properly distinguish the *pragmatics* of "probably" (and the other modal qualifiers not discussed here) from its *semantics*. As far as his account is correct Toulmin succeeds in doing something quite different, namely giving an account of what is required to justify uttering a sentence with a particular pragmatic force. A full defence of formal logic against Toulmin's raft of objections will not be attempted here.

2. TOULMIN'S PRAGMATIC ACCOUNT OF "PROBABLY"

In this section and the next I will show that there are at least three things that we might want to communicate using modal words: the force of an utterance, the modality of a truth-claim, or a relation of the truth-claim to the evidence. Toulmin largely ignores the second two and identifies the meaning of the qualifier squarely with its force. I will not attempt to explain here all of Toulmin's motivations for this but will focus instead on the qualifier "probably" and the evidence he gives to confirm his view against other views of probability where the occurrence of "probably" is an inflected way of talking about a probability, where this probability is either a frequency or a relation to the evidence. Toulmin does not deny that frequencies and evidence can be criteria for the use of the qualifier—what he denies is that they have any part of the *meaning* of "probably." The kind of evidence he gives is basically from linguistic intuitions. Unfortunately, such

¹ In referring to "all" this account differs from many other relational views such as the ones that will be discussed in detail later and that Toulmin takes such great exception to, where it is usually the evidence the speaker actually has that the probability is related to. I will also claim that this does not differ much from the frequency view. However, my aim is not to argue over particular interpretations of probability.

intuitions, by their very nature, can be interpreted as revealing the semantics of words or as revealing their pragmatics. Although I will uphold many of Toulmin's intuitions, I will maintain that Toulmin draws the wrong moral from them; they prove something about the pragmatics of "probably" and not its semantics.

Consider our linguistic intuitions about the following case: what do we mean when we say something like "It will probably rain this evening"? What is its force and propositional content? And: how do we disagree with someone making this statement?

Are we saying that we are confident that it will rain this evening, or at least, more confident that it will rain than that it will not? No. Granted, we may only make this statement because we are confident, and if we were not confident our saying it would be inappropriate; nevertheless, the statement itself is not a psychological report. Even though a listener may validly draw conclusions about my degree of confidence, it is not a statement about my degree of confidence.

Are we saying that there is some particular probability of rain? No. Granted, the grounds of our confidence must be evidence that makes the occurrence of rain likely, and if we did not have such evidence our statement would once again be inappropriate — it would be improper to make the prediction of rain if we did not have enough to go on. Nevertheless, the evidence is not part of the meaning of "probably", nor does the meaning refer to the evidence in any way. Instead, the evidence – or rather, the fact that the evidence meets the standard for weather prediction – is part of the criteria for applying the modal qualifier "probably" to the statement "It will rain this evening."

Neither our confidence nor our evidence is part of the propositional content of this speech act, nor its force; it is not a part of the meaning of the speech act or the qualifier "probably" at all. Since the occurrence of "probably" does make some kind of difference to the meaning of the speech act, it does not indicate either of these things.

"It will rain this evening", everybody agrees, is a statement about the rain (i.e., whose propositional content is that it will rain this evening). Common-sense, says Toulmin (1958: 58), would have it that "It will probably rain this evening" must be about the rain as well; this is shown by the fact that if we wish to disagree we simply say "It will not rain this evening" as much when there is a "probably" as when there is not. The philosopher, however, says that "It will probably rain this evening" is not about the rain but about the probability of rain, this being a difference in the propositional content of what is asserted, in which case we would express disagreement by saying "It will

probably not rain this evening" or "The probability is low that it will rain this evening." Toulmin comes down on the side of common sense: we say "probably p " when we are confident (to some extent) that p but do not know for certain. So, "It will probably rain this evening" is just as much about rain this evening as "It will rain this evening", that is to say, it has the same propositional content as "It will rain this evening" but a different force. This is sometimes called a "parenthetical" use of "probably."

As with the other modal qualifiers,² Toulmin identifies the meaning of the qualifier "probably" with its *force*. We use "probably" when we do not want to commit ourselves unqualifiedly, but rather to commit ourselves "guardedly, tentatively, or with reservations" (Toulmin, 1958: 49). Instead of an assertion, we make a hedged assertion. Instead of a promise, we will say that "I will probably come to the party". This is what we use "probably" to do.

Usually we guard our assertions when the premises we have are not logically sufficient for what we want to claim. For instance, we might be completely right about the current indicators of what the weather is going to be tonight, and yet it is, of course, possible that it might not rain tonight. We might then prefer to qualify our statement that it is going to rain tonight with "probably."

Though generally true, this is not universally true for Toulmin. He argues that it could be that the evidence we have, though it is not logically conclusive, is acceptable in the field for applying the qualifier "necessarily", or just for saying "It will rain this evening" without guarding the statement with a qualifier. This implies that statements where we use "necessarily" are, analogously, not, for example, about the necessity of rain, but just about rain. Again, the meaning of the modal term is identified with its force, where in this case the force is to rule what is qualified as "necessary" as the only possibility worth considering. Logical necessity and impossibility are the criteria for applying terms like "necessarily" only in subjects like mathematics where they are the appropriate standard, and this is a tiny and unrepresentative minority of real life arguments.

Similarly, I think it is possible that the evidence, though it is logically conclusive, is such that we do not want to commit ourselves to it. In other words, having an argument for a claim where the claim follows deductively from the premises is generally but not always sufficient for qualifying the claim with "necessarily".³ When it is not, we might want

² Qualifiers connected with necessity and possibility are dealt with in another paper.

³ There is a side-issue here where we might not want to use "necessary" as our qualifier in this situation because we do not *know* that the argument is deductively valid: perhaps we think that it is deductively valid

to use "probably" here too to signal the fact that we are not lending our authority to the claim too strongly.

This latter kind of case is not much discussed by Toulmin, and, in fact, he may not endorse it. There are places where he seems to consider logical sufficiency to be sufficient for the qualifier "necessarily" but not necessary; in other words, the problem with logical criteria for applying the word "necessarily" is that they are usually too strong, and not that they are too weak. But I see no principled way that Toulmin can exclude the kind of cases that I am going to put forward, given his own analysis. The fact is that we do, in ordinary language, make guarded assertions even when we are certain of our premises and that our premises are logically sufficient for what we want to assert.

We will consider a few examples. The first is because public speech can have practical implications that internal discourse does not have. If being wrong could have serious consequences, one might hesitate even if one were certain of one's premises and that these logically entailed the conclusion. One might ask oneself: could I have made a mistake? Could my proof have gone wrong somewhere? After all, invalid proofs are not unknown and the best-confirmed hypotheses have been later discovered to be false. The criteria in fields where there are serious repercussions for being wrong will have more stringent criteria for applying modal qualifiers than those that do not.⁴ For some fields having premises that are logically sufficient and conclusive is an appropriate criterion. But even here, it may be that we believe that we have logically secure grounds for a claim and yet believe that the claim is not true, for example in the paradox of the preface.⁵ In such a case we would not consider ourselves justified in saying even "Probably, everything I have written in this book is true." Quite the reverse: we think ourselves justified in saying "Probably, it is *not* the case that everything I have written in

but are not sure, or mistakenly take the inference involved to be defeasible or non-deductive. I will assume that we are not in these kinds of situations, and even if we are, I would still be inclined to say that use of the qualifier "necessarily" is justified, but we do not know that it is justified.

⁴ Fans of "ethical encroachment" might argue that these are not just conditions for asserting to be justified, or acting on a belief to be justified, but for belief itself to be justified. I deny this, but do not wish to argue the point. It is worth noting in passing that the conditions that justify asserting a belief and the conditions that justify acting on it can be expected to be very similar. We do not use qualifiers when we act, though—although we may do something, say make a putt, *tentatively*, this is not some guarded way of putting or putting with reservations. Nor are modal qualifiers involved in our practical reasoning (except when we reason specifically with modal claims). When we choose not to act on a belief that we are confident about because of the risks of being wrong, this is not because we hold the belief itself more tentatively or need to modally qualify the conclusion of our reasoning.

⁵ In the paradox of the preface, an author makes a series of truth-claims in a book, and believes of each claim that it is true. However, he knows that he is not infallible and that it is quite likely that he has made mistakes so that not all his claims are true. This is paradoxical because the author thinks of each of his claims individually that it is true, but does not believe that all his claims his true, despite the fact that the latter follows deductively from the former.

this book is true." The point here is that even criteria of logical sufficiency do not settle the issue, even without bringing in considerations of repercussions.

When the conclusion is claimed to be necessarily true – i.e., in subjects like mathematics that deal in statements that if true are necessary truths (in whatever sense of "necessary" is appropriate to mathematics) – we might, not unreasonably, take the claim to be in some way more reliable than one that was not so qualified, and in this sense to require greater certainty on our part before making the truth-claim. But this need not always be so: it does not matter too much whether we are right or wrong about Goldbach's conjecture – such a theorem has few practical implications outside of the practice of mathematicians themselves – and consequently we need not be that certain at all before we are prepared to claim that it is true. Sometimes we qualify the utterance and say something like "Goldbach's conjecture is probably true." Obviously, this cannot be taken to conflict with its being necessarily true: it would not be wrong, for instance, to say "Goldbach's conjecture is probably necessarily true" (as opposed to necessarily – i.e., unguardedly – necessarily true, and not as opposed to probably *non-necessarily* true).

What is possibly less obvious, but equally true, is that it does not conflict with, or say anything about, any particular support relation. We might say "Goldbach's conjecture is probably true" irrespective of whether we think we have a conclusive proof or think that we only have non-conclusive inductive evidence; either way, we want to guard our assertion, though for slightly different reasons. Then again, there are occasions where we might say "Goldbach's conjecture is probably true" as an elliptical expression of "Given our premises, it is highly probable that Goldbach's conjecture is true". This leaves open the possibility that, given different premises, it is not highly probable, and could even be improbable, that Goldbach's conjecture is true. Nonetheless, given the premises we actually have, we are justified in making this qualified claim. This "probably" does say something about the consequence relation.

The point is that the conditions that need to be satisfied in order to use a modal qualifier have no direct bearing on the modality of the inference (that is to say, the *necessitas consequentiae*) or the modality of what is claimed (e.g., mathematically necessary, logically necessary, nomically necessary); it is possible that a conclusion that is logically entailed by the premises, and/or a logically necessary truth, be qualified as "probable" in Toulmin's sense, and that what is only probably true given the premises be qualified as "necessary." Where logical necessities are additionally qualified as

"necessary" in Toulmin's sense and being logically necessary is sufficient for applying the term "necessary" in Toulmin's sense, this is a contingent fact about the field involved, and tends to be because of the practical implications typically issuing from stating something to be logically necessary rather than because of the modality as such. For example, suppose that the field is classical logic and that I state the Law of Excluded Middle as my truth-claim. This law is a logically necessary truth, and it is not unreasonable to think that in the field of classical logic, something's being a logically necessary truth is sufficient for asserting it unguardedly. But it might have been otherwise, especially if commitment to the Law had negative repercussions; that it is this way and not otherwise is a contingent fact about the field. In summary: the conditions vary with the field, but these conditions are only tangentially connected to the issue of how the claim follows from the reasons adduced for it or to whether what is claimed is a logically necessary truth, or a physically necessary truth, or whatever. There is no direct relationship between the strength of the conditions for making a truth-claim with either the modality of the conclusion, the strength of the premises, or the strength of the support relation.

However, against Toulmin's account, and against his analysis of "It will probably rain this evening", not every use of a modal word is a way of expressing our level of commitment. Something like "Goldbach's conjecture must be true" might indicate at least three different things: that it logically follows from the premises, that it is a necessarily true statement, or that we are committing ourselves without reservation. Similarly, "It will probably rain this evening" might indicate that rain is highly probable from the evidence, that a claim of a weaker modality than necessity (where this necessity would not be logical necessity but 'metereological' necessity) is being made, or that we are committing ourselves with reservation. In each case it is something different that is being qualified. Only the first use has anything to do with logic.

This, I think, is Toulmin's basic error: on the basis of a jurisprudential analogy, he considers the questions of whether the claim follows from the reasons adduced to be the same as the question of justifying the use of a particular modal qualifier, that is to say, of making a statement with a particular force. Observing that we sometimes say that things are necessarily so even when it is logically possible for them to be otherwise,⁶ he denies

⁶ For a list of instances where we use "cannot" and do not mean by this logical impossibility see Toulmin (1958: 22): "You cannot", we might tell someone on one occasion or another, 'lift a ton single-handed, get ten thousand people into the Town Hall, talk about a fox's tail, or about a sister as male, smoke in a non-smoking compartment, turn your son away without a shilling, force defendant's wife to testify, ask about the

the usefulness of formal logic to answer the first of these questions except in those specific fields where formal logical properties comprise the appropriate field-dependent criteria, as they might in fields like geometry and mathematics.

But, in fact, once we see that we might only want to make guarded assertions even when we are certain of our premises and that our premises are logically sufficient for what we want to assert, this should clue us to the fact that the two questions simply have no necessary relations between them. Sometimes non-conclusive arguments justify the qualifier "necessarily" and sometimes conclusive arguments justify only the qualifier "probably." This is the direct result of the view that "probably" is used to make guarded assertions. Paradoxically, agreeing with Toulmin that this is a legitimate use of "probably" leaves me to a diametrically opposite view to his: Toulmin appears to think that formal logicians cannot accept that conclusions that do not follow logically from their premises can be qualified as "necessary," but this is only because this is not what logicians mean when they describe the conclusions of logically valid arguments as "necessary." Nor are they saying that the conclusion is a logically necessary truth.⁷ What they are saying is that it is logically necessary for the conclusion to be true if the premises are true. Logicians could use "necessary" and "probably" to express different levels of commitment in exactly the way Toulmin proposes, and do when they say things like "This is probably a logically valid proof." Clearly, such a use of "probably" does not indicate a support relation in this instance.

If further evidence were needed, we could point out that these different modalities could occur in any permutation. Because we do not want to commit ourselves when being wrong could be disastrous, we might weaken our assertion by saying "probably," but this need not mean we seriously doubt whether what we have asserted is *true*, for this is entirely dependent on our evidence. We might say "The speed of light is probably constant" in the following context: "Personally, I am perfectly satisfied that the speed of light is constant, and that this is a physical necessity. Given my evidence, it is true. (In fact, it is logically impossible for this to be false given my evidence.) *But don't quote me.* Who knows: maybe I made a miscalculation or error in reasoning?" It is significant here that the kind of reasons the speaker gives for their reluctance to assert a conclusion as

weight of fire, construct a regular heptagon or find a number which is both rational and the square root of two."

⁷ In those cases where logicians do assert conclusions as logically necessary it is because they are dealing with arguments in modal logic, and in these there must also be logically necessary premises, e.g., "if necessarily p and necessarily if p then q , then necessarily q ."

a necessary consequence have to do with errors of performance and not to do with the relation between the evidence and the truth of the conclusion. The point here is that it is quite possible for the speaker to believe the conclusion to be true and to follow with necessity (even logical necessity) from the premises and yet to make a hedged assertion.

To repeat: justifying the qualification given to an assertion is not the same as justifying what is asserted. I think that Toulmin, failing to notice this distinction and focussing on justifying the use of the modal qualifier to qualify the utterance (i.e., the speech act, or more specifically its force), effectively takes himself to have answered the latter question when he has answered the former; however, logic is concerned with the latter – with justifying what has been asserted (in other words, the sentence-meaning) – and not the former. Nor does the qualification given to the assertion have the kind of modality as has what is asserted (i.e., the modality of the propositional content of the speech act); although what is asserted is in this case a physically necessary truth, when we use the modals "must" or "probably" in this way we are not saying that anything is physically necessary or probable.⁸ If we want to say this then we have to use a modally qualified conclusion, e.g., "it *must* be the case that, as a matter of physical *necessity*, this bridge is safe." The two modal qualifiers are quite independent and qualify different things. That there is any relationship between them at all is due to the incidental fact that being wrong about physical necessities tends to have more severe practical implications than being wrong about, for example, procedural necessities. This might make there appear to be a closer relationship than there really is.

Not only has Toulmin confused two different questions, but he has confused the meaning of a modal term with what it might be used to do when we make statements that use it. Searle (1969) calls this error the speech act fallacy and he accuses Toulmin of committing this fallacy with regard to "probably", though he strangely passes over the fact that Toulmin gives precisely analogous accounts of "necessarily" and "possibly" too — if Searle is right about "probably" this undermines Toulmin's whole plan of identifying

⁸ An anonymous reviewer, pressing the distinction between utterance-meaning and sentence-meaning implicitly alluded to here, says that the sentence-meanings of "It will rain" and "It will probably rain" are different, and that "probably" may make a different contribution to utterance-meaning than it does to sentence-meaning. I agree, but I do not think that Toulmin would. For Toulmin, "probably" in this context contributes only to the utterance-meaning and not to the sentence-meaning — there is no difference in semantics between the two sentences as such, since Toulmin takes them to be the same propositional content, i.e., that it will rain. The only context in which "probably" contributes to the sentence-meaning is if it were intended as part of a modal claim, that is to say, to make a claim that falls short of meteorological necessity (whatever that is). It is not altogether clear whether Toulmin endorses this kind of use either. To put it another way, for Toulmin the 'parenthetical' uses of modal words are their only uses.

the meaning of modal qualifiers with their force. I will discuss this in detail later.

Now, it might be denied that Toulmin actually identifies the meaning with its force; there are a couple of places where he seems to be making a weaker, vaguer claim (Toulmin, 1958: 18-19). However, if he really wants to address formal logicians, he has to take force effectively as the meaning in order to make his case: if we are asked to evaluate whether a certain claim is true then we need to know what the claim means, and if we want to know whether it follows from reasons we give for it, we need to know what they mean, and there must be some kind of relation between these meanings in order for the reasons to support the claim made. What the claim might be used to *do* – e.g., whether it is used to avow or to disavow authoritativeness with respect to the claim – is not relevant to this evaluation, unless it is genuinely the meaning of the modal term. Hence, I don't think that it is really open for Toulmin to opt out from taking the force to be the meaning. But, as I will argue for later, I deny that it is the meaning: the meaning of the claim (e.g., "It will probably rain this evening") is a statement about a probability, which is not itself a guarded assertion but a plain assertion, and what Toulmin calls the meaning is simply the force of a perlocutionary act that accompanies this statement. Often such a perlocutionary effect is intended and we may make a statement about probability entirely to bring about such an effect, irrespective of how justified we think the probability statement itself is. I think that this is basically what happens in those uses called "parenthetical" — in order to avoid being committed to going to the party, for example, I make a statement that there is a probability that I will not go to the party, even though you disagree with me by disagreeing with the un-modalized statement, namely, by saying "You will go to the party" rather than by disagreeing with the probability statement by saying, for example, "The probability that you will not go to the party is low". This is a pragmatic phenomenon only. Sometimes the perlocutionary effect is unintended and we may attempt to prevent our listeners from drawing any such implicature that we are guardedly committing ourselves to an un-modalized statement; this will occur in contexts where the way to disagree with such a statement is not just to say "It will not rain" – which responds to the un-modalized statement – but to say "It is improbable that it will rain". These are the uses called "non-parenthetical."⁹

⁹ There is some similarity here with Freeman's (1991: 114) view that there are three aspects of a probability-statement: asserting a probability, hedging, and predicting. My view is that the probability-statement itself always asserts a probability, and this is the meaning of the probability-statement. Hedging is something that we do when we assert a probability, and is a perlocutionary act. Predicting is another illocutionary act that we may perform in making the probability-statement, but not always. For example, we may know that the probability being asserted is based on evidence that is too incomplete to be reliable, and we would not, on

Toulmin mistakenly takes the "parenthetical" use of "probably" to be the only use, and uses of "probable" and "probability" to be parasitic on that use. While I agree that he has correctly analysed one use of "probably", he is wrong to take it as ubiquitous, and wrong also to say that formal logicians would refuse to acknowledge any such use. Cooper (1965: 227-28) agrees with Toulmin's analysis of "It will probably rain this evening" but denies that uses of the word "probable" are the same: if I say "It is more probable than not that it will rain this evening" then I am making a statement about the probability of its raining this evening, and to express disagreement with me you would have to say "It is not probable that it will rain this evening" and not – as was the case with "probably" – "It will not rain this evening." This is a non-parenthetical use of the qualifier.

Cooper (1965: 228) claims that Toulmin's analysis is not true even for all parenthetical uses; in particular, it does not apply to what he calls "double-limbed" uses exemplified by sentences like "He probably will, but possibly he won't." These do not contradict each other; rather, "he probably will" makes a statement about a probability, and "possibly he won't" emphasizes that this probability is not unity, that is to say, it leaves open the possibility that he won't. "He won't", Cooper seems to imply, does not express disagreement because explicitly allowed for. To express disagreement, you would have to make a contradictory probability statement, and if you said "That is false" then I would take that as meaning that such a contradictory probability statement is true. The double-limbed structure has the effect of emphasizing the qualifiers, and in that way making those qualifiers refer to something, whether it is a probability, a possibility, or whatever. In Cooper's view, Toulmin's analysis is true only of parenthetical, *single-limbed* uses.

I am not so sure that I agree with Cooper here, and I think that Toulmin's account can be defended as an account of all parenthetical uses, both single-limbed and double-limbed. Cooper's error, I think, is in thinking that if Toulmin's account were true then "He probably will" and "He possibly won't" would be contradictory guarded assertions. Thus, he says (1965: 228) "we do not interpret this statement as containing two guarded but contradictory assertions at the same time" and continues, as if this were a refutation of Toulmin's view, by saying "the limbs of these statements are not only compatible, but actually complement one another." Cooper has elided any distinction between "probably" and "possibly" here. Of course, when I make a guarded assertion I allow for the possibility

its basis, be prepared to make any prediction. What we can say is that if we were forced to make a prediction, then this is what we would predict, having nothing better to go on. In itself, this is not committed to any particular conception of probability.

that I might be wrong — that is why I guarded my assertion! If you say “He won’t” then you are disagreeing with what I have guardedly asserted. If you say “He possibly won’t” then you are obviously not disagreeing with me at all, since this is something I allowed for in guarding my assertion. Similarly, I cannot say “He probably will, but he won’t” without some sort of inconsistency, nor can I say “He probably will, but he probably won’t”, but there is no such problem with saying “He probably will, but he *possibly* won’t”. Cooper is committed to saying that if the latter is allowable, then so would be the former, this being just the actualization of a possibility explicitly allowed for, but this is actually inconsistent with the agreement Cooper expressed earlier with Toulmin's analysis of the rain example, where Cooper seems to agree that “It will not rain” disagrees with the guarded assertion “It will probably rain this evening.”

3. TOULMIN'S ARGUMENTS AGAINST THE TRADITIONAL VIEWS ON PROBABILITY

Toulmin largely makes use of linguistic intuitions to support his case. But these intuitions at best only show that the analysis of “probably” that he has given identifies one genuine use of “probability”. I concede that sometimes we use “probably” in the ways Toulmin describes. But it is a false dichotomy to suppose that “probably” cannot be used to make claims about probabilities, that because in “It will probably rain this evening” the modal word is often used to make a guarded assertion, there can be no instances in which this sentence is spoken in order simply to say something about a probability; there are some contexts in which it is not the force but the propositional content that is influenced by the occurrence of the modal word, contrary to what Toulmin claims. As we will see later, Toulmin even goes so far as to say that the word “probability” has no designatum; though we may have frequencies and proportions, these are not probabilities themselves or constitutive of the meaning of “probably” but are instead just the grounds for our using “probably” to guard our assertions.

The first linguistic intuition (1958: 49-53) Toulmin appeals to is that he says that it is wrong to say that something is “improbable but true.” This is an interesting case because, as Toulmin discusses, Kneale makes use of an opposing intuition that we can and do say this, and the fact that we can is evidence that what we mean by probability is a relation to the evidence, our use of “improbable” expressing a relation between the claim and the evidence for it. The evidence can be against something's being true and so we might truly describe that something's being true as “improbable” while at the same

time we know it to be true and so might truly describe it as true: hence, "improbable but true."

Toulmin grants that *before* we knew it was true, saying that it was improbable was a correct thing to say if the evidence we had at the time of utterance made it unlikely. But we cannot say that it is improbable *once we know that it is true*, since in saying it to be true we lend our authority to it and express our entitlement to it, but then contrarily proceed by the addition of "probably" to make a guarded statement. Toulmin is saying "improbable but true" is an imprecise way of speaking and strictly false. Something we know to be true may *seem* improbable, Toulmin says, and at one time calling it "improbable" was a correct thing to say, but what we should say when we know it to be true, were we being precise, is that it "*seems* improbable, but true."

Toulmin's case seems to rely on the following argument (1958: 51):

[I]f I say 'It is probably raining' and it turns out not to be, then (a) I was mistaken, (b) I cannot now repeat the claim, and (c) I can properly be called upon to say what made me think it was raining. (Answer, for instance: 'It sounded as though it was from the noise outside, but I see now that what I took to be rain was only the wind in the trees.')

Does this not amount to refutation? Indeed, once we have found out for certain either that it is, or that it is not raining, the time to talk of probabilities at all is past: I cannot any longer say even that it is probably not raining—the guard is out of place.

Cooper (1965: 230) applies his own analysis of double-limbed parenthetical uses of "probably" to this example:

If I find that a statement turns out to be false, it does not follow from this that my statement that it was probable that it was true is false. For by saying that it was only probable that it was true, I implied that it was possible that it was false, and my having later found that it was false justified my original caution in allowing for the possibility of its being false. Toulmin's attempt to maintain that probability-statements are verified or falsified by the occurrence or non-occurrence respectively of the event predicted is due to his excessive concentration on single-limbed, parenthetical uses as opposed to the more complex but none the less common double-limbed and non-parenthetical uses.

Cooper describes Toulmin's view that we should only say "seemed improbable but true", and that it is inconsistent to say "improbable but true", as "gratuitous." Again, I think that Cooper is mistaken here. I agree with Cooper, against Toulmin, that there are non-parenthetical uses where we make statements about the probability of what is said to be improbable, and that a statement that something is improbable is not falsified when the improbable event occurs. But Cooper seems to be saying that when something improbable occurs this is not inconsistent *with the guarded assertion that it would not*

occur because the guarded assertion already implied that it was possible for it to occur, that is to say, for what was said to be improbable to be true. Hence, he seems to be taking "improbable, but true" as an example of a double-limbed, parenthetical use. But this only shows that the occurrence's improbability is consistent with its possibility of being true, and not that it is consistent with being guardedly asserted to be false when this guarded assertion *is being made now* and we are not commenting on a guarded assertion that we may have made in the past: "true, but false" is a contradiction, while "true, but possibly false" is not.

Thus, I think that Toulmin is right when we are using "probably" in the way he says it is being used here: I am being inconsistent if I make a guarded statement that *p* (or, since we are discussing improbabilities, a guarded statement that not-*p*) and then effectively add "but *p* is true." If the speaker is using "probably" in the parenthetical way Toulmin describes (and I allow that this is a legitimate usage) then I think he is right, but I do not think we have to use it this way (i.e., the parenthetical usage is not the only legitimate usage) — it seems quite intelligible to me that we can talk about the probability of something's occurring even when we know whether it has occurred or not. For example, I say "The probability of throwing a six on the next throw of this die is 1/6." Then I throw the die. Has my probability statement now become false? I don't think so. My statement was about the probability of an outcome, not about the outcome itself. It seems to me quite intelligible to say "It was improbable for the outcome of my last throw to be a six, but true (that the outcome of my last throw to be a six)" — the probability claim is about a probability and the truth-claim is about the actual outcome. It offends common sense to say "It only seemed probable."

Freeman (1991: 122-23) is similarly critical of Toulmin here. Freeman follows the relational account and takes all probability-statements to contain tacit reference to the body of evidence had by the speaker at the moment of utterance. He points out that while "It is probable that *P* but *P* is false" and "Probably *P*, but *P* is false" are anomalous, "Given conditions *C*, *P* is probable, but nonetheless *P* is false" and "On evidence *D*, the probability of *P* is such-and-such" are perfectly intelligible. However, these are non-parenthetical uses. Does this mean that Toulmin is wrong about the parenthetical use? Freeman (1991: 123) says: "Only to seem probable is to be probable given certain deficient or incomplete evidence, for those possessing just that evidence." However, Toulmin's question is whether it is appropriate for someone now – who has evidence that *P* is true – to describe *P* as improbable. On a non-parenthetical use we can, whether we

take a relational view or not, because we would then be making a statement about a probability and what is improbable may nonetheless be true. But if we are using it parenthetically then I do not think this follows: Toulmin can, and does, say that if such and such were our evidence at the time, it would be correct for us to describe P as improbable, and in that sense our assertion is relative to the evidence, but this does not mean that our calling it improbable tacitly refers to the evidence, and, more to the point, now that P is known to be true it is inappropriate to hedge P, for this would imply reservations about P that we do not have. As Toulmin (1958: 51) says, the time for any talk of probability is past when something is known to be true or false.

Thus, I think that Toulmin is right about the parenthetical uses. Because Toulmin takes the force of the modal qualifier to represent its one and only legitimate use, this non-parenthetical use is eliminated, and Cooper and Freeman are right to criticize Toulmin on this count. Toulmin operates on the basis of a false dichotomy: "probably" does not always express a reservation and does not always qualify the utterance. This explains how we can have different intuitions without having to call one of those intuitions untrue.

However, when "probably" does not qualify the utterance it is about a different thing altogether, namely the probability. A statement about a probability is itself something that can be qualified in any of the ways I have described. We may say "p is probably probable", meaning that we think that p has a high probability of being true, but are not confident enough about this to put it forward unguardedly.

Now, I am not sure that, in saying that the probability statement is sometimes about the probability, I would want to say that it is about a certain relation to the evidence that we have. Rather, we are making an estimate of an objective probability on the grounds of such evidence, and the statement is about the objective probability itself, and must be put forward tentatively; although the grounds justify to some greater or lesser extent our making this estimate, I do not think that it is part of the content of what is asserted. Probability statements are not statements of evidence, or (generally) elliptical for a statement that makes some reference to a particular body of evidence. (I will claim later that objective probabilities are relative to evidence, but to *all* evidence, not any *particular* evidence). Similarly, I also agree with Toulmin that probability statements are not psychological reports of our own feelings of certainty, although they do express these. In a sense, "probably" need not always be a qualifier at all, but can be an inflected statement about a probability, and it is perfectly reasonable to think that there can be

such things.

Another linguistic intuition is appealed to much later at (Toulmin, 1958: 124):

[A] man can say, with perfect propriety, 'Petersen is a Swede and the proportion of Roman Catholic Swedes is very low, and yet Petersen is almost certainly a Roman Catholic' . . . if he knows something about Petersen that places him in the Roman Catholic minority—whereas, if the original statement [that Petersen is almost certainly *not* a Roman Catholic because he is a Swede and few Swedes are Roman Catholics – DB] were a tautology, this new statement would be bound to be a self-contradiction.

The point Toulmin is making use of here is that if a probability statement is just an elliptical statement of a relation of a claim to the evidence for it, then when it is true it is a tautology — given precisely those premises, there is no possibility that the probability of the conclusion be other than what it is. So, if his opponents (those like Kneale who say that probability denotes a relation to evidence) say that Petersen is almost certainly a Roman Catholic on the same premises, this is contrary to what they said before, and since what they said before was a tautology, to say this must be an outright contradiction. On the other hand, on Toulmin's view that the original argument (whose conclusion is that Petersen is *not* a Roman Catholic) is 'analytic' (in Toulmin's own sense of this word) but *not* a tautology, it can make sense to deny the conclusion of the original argument should we learn something else about Petersen, e.g., that he is a Roman Catholic. Toulmin is entitled to deny the conclusion, then, on acquiring new information, while his opponents are not.

As far as it goes, this analysis is correct: if I say "P; therefore, almost certainly Q" then I cannot say "P; therefore, almost certainly not Q". It is not, however, true that only Toulmin can deny the conclusion when learning something new about Petersen; so can his opponents provided that they add this new information to their premises. I can, for instance, say, "P; N; therefore, almost certainly not Q" – when N is the new information – without any contradiction. And, in fact, it is precisely because I can do this that I can still say "P; therefore, almost certainly Q" and still say something that I consider true. For someone taking this view it is quite legitimate to say "It is improbable for Petersen to be a Roman Catholic, but nonetheless true" because this is elliptical for saying "It is improbable for Petersen to be a Roman Catholic given only the information that he is a Swede and very few Swedes are Roman Catholics, but it is nonetheless true".

Now, even if it is a false dichotomy to suppose that "probably" cannot be used to make claims about probabilities if there are linguistic intuitions that support the use of

"probably" he describes, this does not matter if Toulmin succeeds in showing independently that the word "probability" has no designatum at all. He argues for this extensively in essay II of *The Uses of Argument*. He considers whether "probability" could designate a frequency or a proportion, and rules out this possibility by an open question argument (Toulmin, 1958: 63-64):

[I]t becomes clear that 'probability' cannot be analysed in terms of (say) frequencies or proportions of alternatives alone, when one notices that it is certainly not frivolous to ask whether, or why, or over what range of cases, observed frequencies or proportions of alternatives do in fact provide the proper backing for claims about probabilities To attempt to define what is meant by the probability of an event in terms of such things is to confuse the meaning of the term 'probability' with the grounds for regarding the event as probable, i.e. with the grounds for expecting it; and, whatever we do or do not mean by 'probability', whether or not the word can properly stand on its own, these two things are certainly distinct. As with so many of those abstract nouns formed from gerundive adjectives which have puzzled philosophers down the ages—nouns like 'goodness', 'truth', 'beauty', 'rightness', 'value' and 'validity'—the search for a tangible counterpart for the word 'probability', once begun, is bound to be endless: whatever fresh candidate is proposed, Moore's fatal questions can be asked about that also.

Frequencies and proportions can, under certain circumstances, constitute the grounds of our making probability-statements, but they are not themselves "probabilities", for otherwise it would make no sense to inquire whether the frequency, for example, does or does not back the probability-statement.

Next, Toulmin considers Kneale's view that probability designates a relation to the evidence (which Toulmin calls "probability-relations" and Kneale calls "probabilifications") but rejects this also, again largely on the basis of linguistic intuitions. Kneale cannot say that one probability-statement is better or more accurate than another when one contains more information, because the addition of more information amounts to a different relation; thus, he denies to probability-statements any kind of objectivity, any sense of being better or worse depending on how close they get to an objective probability (Toulmin, 1958: 67); they are all equally tautologies. Then he says (1958: 68) that Kneale's view is vulnerable to the open question argument as well: if "probability" designated this relation

one could not even ask the question which, according to him, any adequate analysis of the probability-relation must answer: namely, the question, 'Why is it rational to take as a basis for action a proposition . . . which stands in that relation (of being highly probabilified) to the evidence at our disposal?' For this would be to query a truism, being only an elaborate way of asking, 'Why need we not expect that which is extremely unlikely?'

We would be "querying a truism" because, as mentioned above, it is a consequence of the relational view Toulmin is considering that true probability-statements are tautologies. Toulmin (1958: 68) presses the point further:

The probability-relations of which Kneale writes are therefore to be thought of as distinct entities, coming logically between detailed evidence of the prospective client's age and physical condition and the practical moral that he need not be expected to survive (though of course one in a thousand does). At once all the objections to a naturalistic definition recur. Even if certain entities always were found 'between' the evidence and the conclusions we base on it, we could presumably only discover from experience that, in some or all circumstances, they can reasonably be relied on as a guide to the future, like the green cloud out at sea presaging a gale. The words 'probability', 'probably' and 'in all probability' could no more be analysed in terms of such entities as these than in terms of frequencies or proportions of alternatives, and for the same reasons.

Toulmin's point here seems to be that, once we know the probability-relation, if the probability-statement were about this relation – in other words, if such a relation were the designatum of "probability" – it makes no sense to ask whether the outcome should be expected or not, whereas Toulmin says that it does make sense to ask this question, and the correct answer to this question is something we must "discover from experience" and not by unpacking a concept. Then, at (1958: 75) he draws an analogy with truth:

Once we have distinguished the probability of h from the bearing of e on h or the support which e gives to h, we can see the saying that 'Probability is Relative to Evidence' for the epigram it is. Certainly the most reasonable estimate a man can make of the probability of some hypothesis depends in every case on the evidence at his disposal—not just any batch he chooses to consider, but all the relevant evidence he has access to—but equally, it depends on the same body of evidence whether he can reasonably conclude that a given statement is true. . . . all that goes here for 'probable' goes also for 'true'; so if we accept 'Probability is Relative to Evidence' as more than an epigram, then we are saddled with 'Truth is Relative to Evidence' as well.

The relation of evidence to probably being true is analogous to the relation of evidence to being true, but we certainly do not say that "true" is elliptical for "true, relative to the evidence"; we cannot identify probability with the evidential support for it, or smuggle in the evidential support as part of its meaning, any more than we do with truth.

To start with, I will note that Toulmin starts with a questionable linguistic intuition. Granted that sometimes we mean by "probably" nothing more than a guarded assertion, but Toulmin errs firstly by taking this to be the only use of "probably" and secondly by failing to notice that if we take this to imply that "probability" has no designatum, by parity of reasoning "necessity" and "possibility" should not have designata either: probabilities,

possibilities and necessities are all in the same boat.¹⁰ "It will probably rain this evening" might legitimately be taken either as a guarded assertion or as an assertion about a probability, then, though in some sense the difference between the two is less semantic than pragmatic; as Toulmin points out, it would be strange to say "It will probably rain this evening" as a guarded assertion when you know whether it is raining or not, but it would be less strange when said as a statement about a probability.

This probability, I think, is the objective probability, but I think that this means only that it is relative to *all* the evidence. I deny the view, therefore, that all probability statements are elliptical for a relational statement in which the evidence that the speaker has for making the statement is tacitly referred to. It does not follow that it is not relational at all. We can have reasons and evidence for a statement about an objective probability just as we can for any other statement. Freeman (1991: 115) justifies his choice of the relational view partly by the intuition that we say things like "Given D, P is probably true", but really this does not affect the issue either way, as I will explain in a moment; D could just be the support of the probability-statement, in which case "P is probably true" is no more a relational statement in which D occurs than "P is true" would be. I do not think that the objective probability statement has any tacit reference to D, except insofar as D is included in the evidence by falling under the universal quantifier "all." A person who has no idea of what the evidence for a probability statement is still speaks intelligibly; the lack of knowing what evidence is referred to does not make it meaningless, as it would if the evidence had to be referred to definitely when the elliptical expression were expanded. That we can make such statements in such circumstances is further evidence for this view (though strictly speaking, it does not require that the statement has to be relative to all the evidence, but only that the body of evidence to which it is relative should be taken indefinitely).

But even if we reject this kind of objective probability, it does not follow that we cannot make comparative assessments of probability claims, or that, as Toulmin puts it, the relational view gives up on the idea of objectivity. I think that Kneale would not want to deny that a probability-relation between a conclusion and a set of data cannot be inferior to a probability-relation between a conclusion and a superset of that data, and

¹⁰ The meaning of the modal words "necessarily" and "possibly" are also identified with their (differing) forces in Toulmin. In fact, this is one of the problems with Toulmin's whole analysis of modal qualifiers; if there is no more to modal qualifiers than Toulmin says, then we need to have independent reasons for thinking that there are such things as necessities, for such are not posited by our modal statements. It does not follow that "necessity" does not have a designatum, but on Toulmin's analysis our modal discourse certainly does not rely on there being any such things, so if there are, this fact is by-the-by.

this because it is closer to taking all the evidence into account. Although on the relational view both probability statements are equally true (in fact, on this view they are tautologies), one of them is nonetheless better than the other. It is not clear whether Kneale actually denies the kind of objective probability that I am proposing, though Toulmin attributes such a denial to him. When Kneale denies that there is a single probability independent of evidence of which these probabilities are estimates, the emphasis is on "independent of evidence." The objective probability *is* dependent on evidence — *all* of the evidence. Toulmin's complaint that Kneale's view involves rejecting objectivity is therefore mistaken.

Furthermore, I do not think that Kneale's view is substantially different from the frequency view. In the frequency view, the probability is the frequency ratio between an attribute class and a reference class. The evidence in the probability-relation is basically the reference class, and just as you have different probability-relations when you change the evidence, so also you get different frequency ratios when you change the reference class. When we ask the question "Is this accurate? Does this back our statement that it will probably rain this evening?" we are not conceptually confused but simply asking how close our estimate, based as it is on incomplete information, is to the objective probability based on all information. And if you do have all the evidence then I do not see that it does make sense to ask whether this provides the proper backing for claims about probabilities. Toulmin's open question argument, then, actually seems to support this answer. To "discover by experience" that a given probability-relation is not in fact a reliable guide for action or prediction is only to discover the obvious truth that predictions made on the basis of incomplete information are unreliable, are less reliable than those made on the basis of more information, and less reliable still than those made on the basis of all information. I do not see how a prediction made on the basis of all information could be discovered by experience to be unreliable, even if certain particular predicted events failed to occur on occasion, since the possibility of their not occurring simply reflects the fact that we are dealing with probabilities and not certainties.

Lastly, just because evidence is grounds of both truth-claims and probability-claims and it is not constitutive of the meaning of "true" that it be relative to the evidence, it does not follow that it cannot be constitutive of the meaning of "probable" that it be relative to the evidence, that is to say, to all the evidence. Granted that we always make statements of truth and statements of probability on the basis of evidence that we have, but it does not follow from this that – because truth is not relational and truth-statements

are not elliptical statements referring to that evidence – probability is not relational either. Cooper (1965: 233) argues similarly to Toulmin on this point:

The second statement may well be our reason for asserting the first, but it does not follow from this that the first is just shorthand for the second. Compare the case of entailment. In this case 'p' does not mean the same as 'q entails p', nor when we say 'It is necessary that p' are we saying elliptically 'q necessitates p'

This is true, and it refutes what Freeman said a couple of paragraphs ago; contrary to Freeman, the intelligibility of sentences like "Given D, P is probably true" does not show that "P is probably true" is elliptical (as Freeman thinks), nor does it show that it is not elliptical, which is to say that it does not settle the issue of whether probability is a relational concept or not either way. The evidence we have can just as intelligibly be our reason for making a relational statement as much as for making a non-relational statement; the fact that we have reasons for our statements does not prove anything either way, and does not mean that we have to take probability to be non-relational just because this is the case for truth. This does not mean that the evidence we have is the evidence serving as the relatum of the relational statement. The evidence we have for such a relational statement – even a statement where all the evidence is one relatum – is a separate issue. This is why it is just as true of probability-statements as others that a statement based on more or on better evidence is objectively better than one that is not.

Thus, as Cooper (1965: 234) says, we are disagreeing if I state that it will probably rain this evening and you state that it will probably not rain this evening, and this is so whether we make these statements on the basis of evidence or not. We must, then, take there to be an objective probability that we are disagreeing about. Here I agree with Cooper. Our statements cannot, then, be simply elliptical statements that refer to the evidence that each of us has, for then there would be no disagreement. Here, I also agree with Cooper. But this in itself does not show that it does not refer to evidence at all, but only that it does not refer to evidence that we have. It is quite consistent with all of Toulmin's and Cooper's objections that the objective probability in question is a relation to all the evidence.

What follows from all this about formal logic? Let us put Toulmin's attack in its best possible light and stipulate that in natural language argumentation all modal qualifiers are used parenthetically, and I have agreed with Toulmin's analysis of such uses. Still, the question remains: has Toulmin provided an account of the *semantics* of

"probably" or only its *pragmatics*? (Either could account for our linguistic intuitions). Is "probably" one of those words (of which there are some, as will be seen shortly) for which what it is used to do – namely, its pragmatic force of 'guardedly asserting' – is the same as its meaning? I will now consider an argument by Searle that claims that this is fallacious and rebut Ennis's attempt to defend Toulmin from Searle's objection. The outcome of this is that these (i.e., the force of the qualifier and its meaning) are not the same, and since Toulmin's attack on formal logic only works if they are the same, Toulmin's attack on formal logic fails. This final claim cannot be fully defended here, however.

4. ENNIS'S DEFENCE OF THE PRAGMATIC ACCOUNT OF "PROBABLY"

Ennis (2006) offers a spirited defence of Toulmin's account of "probably" as an account of what "probably" actually means. Most importantly, he recognizes and tries to answer Searle's objection that it is a fallacy to identify the meaning of "probably" with something it is used to do (I will come to this a little later). Ennis gives three tests that he says an account must pass. Strangely, among the alternative accounts he tests in this way, Ennis never seems to consider explicitly the view that it might designate a relation to evidence.¹¹ The closest account to this that he gives is:

The objective nonspecific numerical definition (nonspecific probability, substantially above 0.5, but less than 1.0): To say 'S is probably P' is to say that the probability that S is P is less than 1.0 but substantially greater than 0.5. (Ennis, 2006: 150)

This seems to be effectively the same as my own account, so this is the only one of the accounts Ennis suggests that I will consider. By Ennis's own account, this definition passes two of the three tests he proposes. Thus, I only need to consider one test.

This test is called by Ennis (2006: 152) "Retention of a Speaker's Inconsistency":

¹¹ This is slightly unfair on Ennis, who gives his reasons for rejecting adding "relative to the available evidence" in footnote 7 (Ennis, 2006: 150), namely that saying that something is probable relative to the evidence "avoids the responsibility that accompanies a guarded commitment that does not include the phrase." Obviously, this is pretty much the same as my view, since I also say that the statement is usually about the objective probability, where this objective probability for me is relative to the evidence, though in my view it is relative to *all* the evidence. That we can only make statements about this objective probability on the grounds of evidence that we actually have does not make the statement itself about a probability that is relative to evidence we actually have. Further, if "probability" is defined as something that is relative to all the evidence there is no real need to consider it as elliptical; to add "relative to all the evidence" would be pleonastic, though not actually wrong. If I do add "relative to the evidence I have" then Ennis is right insofar as this is not a guarded commitment, albeit this seems to presuppose from the start that the guarded commitment view is right. Still, it is slightly odd that an account that Toulmin takes such pains over should be relegated to a brief mention in a footnote in Ennis's paper.

Assume a situation in which I have rolled a pair of honest dice, but no one saw the result. However, an automatic camera did record the result, which was boxcars (two sixes). We have just learned the result by viewing the photo. The chances of not getting boxcars were 35 out of 36. Suppose I then say, 'I probably did not roll boxcars, but I rolled boxcars.' This pair of statements is inconsistent. How can I say that it probably did not happen if I believe that it happened? The proposed speech act hypothesis explains and retains the inconsistency. If you make a commitment, you are inconsistent if you concurrently commit yourself in the opposite direction, even if the first commitment is guarded.

In short, saying "Probably not p, but p is true" seems inconsistent, and the guarded commitment view explains why. On the objective view this statement is not inconsistent, because it amounts to saying "The probability that I did not roll boxcars was substantially above 0.5 though less than 1.0, but I rolled boxcars" and that is consistent. Only the guarded commitment account retains the inconsistency that our linguistic intuitions takes there to be.

This is basically the same as the "improbable, but true" objection that Toulmin raises and that was discussed earlier. Note that I do not actually deny the pragmatic account but say only that it is not the only use of "probably", nor is it accurate to say that it is an account of what "probably" *means*; our linguistic intuitions only point towards a fact about pragmatics and are as much influenced by pragmatics as semantics (perhaps more so). Insofar as our linguistic intuitions match Ennis's, therefore, we can say we are using "probably" to make a guarded commitment, but I need not deny that there is a meaning of "probably" in which it is perfectly correct to say "Probably not p, but p is true." And in fact Ennis does not say that "The probability that I did not roll boxcars was substantially above 0.5 though less than 1.0, but I rolled boxcars" says anything false.

Perhaps Ennis's idea is that we *can* make statements about probabilities, but that when we do so we must use the noun "probability" or perhaps the adjective "probable": "probably", on the other hand, is always a guarded commitment and never contains an implicit reference to a "probability." But does this really match our linguistic intuitions? If we are asked why our commitment is guarded we would answer by saying "Well, the probability of boxcars with two fair dice is 1/36, which is a low probability." Doesn't this mean that we do not make the distinction between "probably" and "probability" in ordinary language that we are supposing? What Toulmin would say at this point, I think, is that here we are not re-phrasing what we said originally but making our backing for what we said explicit; probabilities that reach a certain threshold, depending on the field, may be the *criteria* for applying the word "probably," but this does not imply that the sentences qualified by "probably" are about the probability. As a general point about criteria this is

perfectly correct; in fact, I myself appealed to the same distinction when I said that the fact that we make statements about probabilities relative to all the evidence on the grounds of probabilities relative to incomplete evidence does not itself make those statements any less about the former probabilities and any more about the latter probabilities. But I would not analyse the distinction between guarded commitment and a statement about a probability in this way, that is to say, as a distinction between what a term means and the criteria of its use. Rather, the term "probably" has as part of its meaning a reference to a probability, and a guarded commitment is what we use the qualified statement to do. This is a quite different distinction.

Ennis (2006: 156) anticipates this line of objection:

Some feel that giving the meaning of something that is said calls for saying what is said, not what is done, suggesting that in saying something one cannot also be doing something that is part or all of the meaning of what is said. I see no reason for holding such a narrow notion of meaning. For example, I cannot tell you what was said when I said, "I nominate A for the Vice Presidency", without explaining the meaning in terms of the action I performed in saying that.

This kind of objection is not new but was pressed by Searle in *Speech Acts* (1969), where he called it the speech act fallacy. Ennis (2006: 157-63) attempts to answer these objections. First of all, I will present Searle's objections as I understand them, which is different from the way Ennis understands them.

Searle (1969: 137) begins by stating a very general condition of adequacy that he thinks any suggested analysis for the meaning of a term must obey: "Any analysis of the meaning of a word (or morpheme) must be consistent with the fact that the same word (or morpheme) can mean the same thing in all grammatically different kinds of sentences in which it can occur." Ennis seems to have some difficulty with this principle, but all that Searle means is that whatever contribution a term makes (or, perhaps better, whatever conceptual role it plays) in a sentence, when that sentence is syntactically re-arranged into a different grammatical form the contribution made by the term to this new sentence is the same as the contribution it made to the old sentence. Otherwise, "conversation would be impossible, for "it is true" would not be an answer to "Is it true?" if "true" changed its meaning from interrogative to indicative sentences" (Searle, 1969: 137). It is worth remembering at this point Searle's distinction between force and content: "Is it true?" and "It is true" have, on Searle's account, the same propositional content but differ in that the first has the illocutionary force of an interrogative and the second the force of an assertion, and it is because they have the same content that "It is true" is a

possible response to "Is it true?"¹² Clearly, if a term changed its meaning, *eo ipso* the propositional content would change too.

It is of the first importance to realise that Searle is *not* here saying that the meaning of a term *cannot* be the same as what it is used to do; the meaning of performative verbs *will* be the same as what they are used to do, and *will* pass the test (Searle, 1969: 138-39) :

Now it is clear that the speech act analysis of performative verbs satisfies this condition. For example, when one says something of the form "If he promises that *p*, then so and so" one hypothesizes the performance of the act which he performs when he says something of the form "I promise that *p*". But it is equally clear that the speech act analysis of "good", "true", "probable", etc. does not satisfy this condition. Consider the following examples: "If this is good, then we ought to buy it" is not equivalent to "If I commend this, then we ought to buy it". "This used to be good" is not equivalent to "I used to commend this". "I wonder whether this is good" is not equivalent to "I wonder whether I commend this". Similar counter-examples will refute the speech act analyses of "true", "know", "probable" etc.

Searle repeats the point that performative verbs pass the test at (Searle, 1969: 139). The moral seems to be that if "good" does just mean "I commend it" and "probably" just does mean "I guardedly assert that", then these should behave in the same way that performative verbs do in these tests. Putting "good" into a hypothetical context should result in hypothesizing the speech act of commending and putting "probable" into a hypothetical context should result in hypothesizing the speech act of guardedly asserting, just as putting "promise" into a hypothetical context should result in hypothesizing the speech act of promising. Similarly, when we say that something was good or probable we are referring to a speech act that occurred in the past.

Another important point is that passing the test does not require that everywhere the word occurs, so does a performance. This is illustrated by the way performative verbs pass the test: not every occurrence of the word "promise" performs an act of promising. Depending on the grammatical form in question, it reports an act of promising, hypothesizes an act of promising, etc. Searle would not take Toulmin to be claiming that in every sentence in which "probably" occurs a performance of guarded assertion actually takes place. Searle (1969: 138) says explicitly that those who want to give speech act analyses of certain terms should not be taken to be committed to the view

¹² The force/content distinction is constructed by Searle on analogy with the psychological mode/content distinction in propositional attitudes theory. My desire for something to be true is taken by me to be fulfilled when I believe it to be true, because both the desire and the belief have the same propositional object (that something is true) and differ only in their modes. If they did not have the same content, this would be mysterious.

that every occurrence of the term is a performance of the speech act; it would be easy to produce counter-examples to such an implausible view. Nevertheless, it always indicates the performance of a speech act, whether it is in the past, hypothesized, etc.; it is this more sophisticated view that the condition of adequacy is introduced to combat. Searle does not take the speech act analysis of "good" to be refuted because of the fact that a past tense sentence in which "good" occurs does not perform an act of commending, but because of the fact that it does not report a past act of commending, which it should do, on analogy with performative verbs like "commend" and "promise." A convenient way of understanding the test for our purposes, if Searle's descriptions are found too vague, is that "probably" should behave semantically just as a performative verb would; if it does not, then it is not an account of the term's meaning. Searle then says that it does not. He concludes that this is not an account of the meaning of "probably."

Ennis manages to neglect both these points entirely. Ennis is quite right that "nominate" is a case where the meaning of the term is given by what it is used to do, but "nominate" is a performative verb, so this is quite consistent with what Searle says and is not a "narrow account of meaning." Finding Searle's explicit description of the tests confusing, he also completely overlooks Searle's illustration of what he means when he shows how performative verbs pass the test. Ennis seems to take Searle as rejecting a speech act analysis just because there are uses of the term in which it does not perform a speech-act; thus, Ennis takes his own task to be to show either that it does perform a speech-act, or that it occurs in a context where Searle's test does not apply. But that is clearly not Searle's objection.

Ennis takes the first of these strategies with regard to past tense statements. Ennis's response is, curiously, to claim that they are not actually in the past tense! "It used to be good" means, Ennis says, "I commend what used to be." Similarly for "probably" (Ennis, 2006: 158):

If I now say, 'The raccoon was probably not going to bother him,' I am not reporting a past action of guarded committing by me. Instead I am guardedly committing myself now to the proposition that the raccoon was not going to bother him. It is a guarded commitment, made at the time of utterance, to a proposition about how things were previously.

There is no particular problem with grammatical changes to the past tense, Ennis concludes. Changes into a hypothetical form require a much deeper analysis, which will be discussed in a moment. Before that, I want to make a few comments on where we

have got to so far.

First of all, the terms to which we are giving a speech act analysis should pass the test in a way analogous to performative verbs. So, if "It used to be good" reports a *present-tense* speech act of commending, then this is a *disanalogy* with performative verbs, because when the same grammatical change is made with a performative verb, that verb *will* be in the past tense and *will* indicate a past speech-act. Second of all, Searle would never take the speech act analyst to be committed to saying that "good" in a past tense sentence performs an act of commending, as we have seen, so it is odd to find Ennis insisting that it does in fact perform an act of commending as a way of escaping Searle's objection. Third of all, the best that Ennis can really say in this case is that Searle's putative example of the past tense is not really in the past tense; he has not shown that in a *genuine* example of a past tense use of "good" that term makes the same contribution as it does in the present tense use. Fourthly and finally, I wonder whether "I commend (now) how this used to be" would be at all a plausible construal of "It used to be good" were it not for the infinitive in English; surely we are supposed to understand "It used to be good" as much the same as saying "It *was* good", where *being-good* and not just *being* is the verb. And if they are not the same, "It *was* good" seems to be a genuine example of a past tense use that Ennis needs to explain. So, Ennis has not shown that "good" passes Searle's condition of adequacy.

Then, under the heading "Guarded Committing—though Not by the Speaker" Ennis considers the case where the term is put into reported speech, for example, "Ennis said that the raccoon would probably not bother me" and notes that the speech act analysis of "probable" does pass this test, yet

[a]ccording to Searle's OP [the condition of adequacy – DB], these indirect-speech reports of speech acts are counterexamples to the speech act interpretations of 'probably', 'promise', and 'nominate', assuming they are analyses of meaning. According to OP, as I interpret it, 'probably', 'promise', and 'nominate' must be able to mean the same thing in performances of their act as in the indirect speech statements I just reported. But they cannot mean the same thing because no such performance by the speakers (my friend in the 'probably' report, and me in the 'promise' and 'nominate' reports) occurs in these reports. (Ennis, 2006:159).

In other words, when "probably" occurs in reported speech, as in the example, it is simply a report of a performance and is not itself a performance, just the same as "Ennis said that I promised . . ." is a report of my performance of promising. Ennis (2006: 159) presses on:

It is reasonable for our language to contain a way for us to report the performance of an act by someone else. A reasonable way to do that is to present something in the form of a report that tells what happened—without our actually doing what we report someone else to have done. So in such reports, the speech act words would not have exactly the same meaning that they have in unembedded affirmation contexts, that is, they would not be used by the speaker to perform the action.

. . . [D]irect quotes containing a speech-act word provide more conflict with OP. A statement by my friend, "Ennis said, 'The raccoon probably will not bother you'", contains an embedded occurrence of 'probably'. When my friend said the word 'probably' in that embedded occurrence, my friend was not performing the action of guarded affirming. But when I used 'probably' when I said, "The raccoon probably will not bother you", I did perform such an action..

Ennis is taking Searle to be committed to the view that if the term's meaning is the same as what it is used to do, in every occurrence of the term in question it must do that thing, and since in contexts of reported speech it does not do that thing – even for things like "promising" – the condition of adequacy must be wrong. Here, Ennis is taking the second strategy mentioned above.

Again, Searle is not committed to the view Ennis attributes to him. According to the way Searle describes the way performative verbs pass the test, the fact that no performance of nominating or promising occurs in this context is beside the point, since he would never suppose that any such performance did occur, so if the grammatical change into reported speech is an example of the test, these verbs would be expected to pass it and they would not constitute, as Ennis seems to say, counter-examples to the condition of adequacy. However, Ennis might say, isn't it still the case that "probably" passes it too, and, moreover, in the same way that "nominate" and "promise" pass it? Yes, it does, but what this fact indicates is that this particular grammatical change is *not* an example of Searle's test.

Let me explain why. On the face of it Ennis's argumentation seems very cogent; until, that is, you realise that you could give the term any meaning or no meaning at all and it would pass this test. Suppose that I say "cmvsvbvfnnnxjknmcidvjbb" and you say "He said, "cmvsvbvfnnnxjknmcidvjbb"". The term "cmvsvbvfnnnxjknmcidvjbb" makes the same contribution to both sentences, despite being garbage, and you have said something entirely true and reasonable, albeit difficult to pronounce. You would *never* get the kind of change of meaning that Searle says should not occur with adequate analyses when the grammatical change is simply one into reported speech, so this is not a fair test of Searle's condition of adequacy, and Searle never gives it as one — it is entirely Ennis's invention. You can see why Ennis has chosen it: thinking that Searle is

committed to saying that if the word makes a performance in one context and not another then the word does not have the same meaning in both contexts, Ennis puts forward a context where the occurrence of the word does not make a performance. But we have seen that Searle does not say that every occurrence of the term in question must be a performance; we have already seen this where Searle described how performative verbs passed this test, where it was nowhere supposed that every occurrence of the performative verb was actually a performance. When I say "I promised . . ." I am self-reporting an act of promising made in the past and not making a promise now. As far as Searle is concerned "promise" has the same meaning in both contexts. While Ennis seems to count the term as having different meanings and thus a counter-example to the condition of adequacy, Searle would not count the term as having different meanings. But Searle would not count the change into reported speech as representing the condition of adequacy in the first place.

This entire section of Ennis's paper is, then, completely irrelevant. He gives a test that is not Searle's, that does not represent Searle's condition of adequacy, interprets the condition of adequacy in a crude way Searle explicitly denies by wrongly attributing to Searle the view that the term in question must perform a speech act even in indirect speech (or, for that matter, any contexts other than present-tense declaratives),¹³ wrongly counts the fact that no such performance occurs in indirect speech as a difference in meaning of the term in the two contexts when Searle would not consider this to be a difference in meaning, and then wrongly makes out this fact to be a counter-example to the condition of adequacy.

Under the heading "No Guarded Committing—Yet" Ennis turns to considering the uses of "probably" in hypothetical statements, taking as his example "If the raccoon probably will not bother her, then she can probably safely turn her back on the raccoon." Since it is hypothetical, the statement does not make any guarded assertion. What it does say, according to Ennis, is that certain guarded assertions are justified. Cashed out, the sentence reads "If a guarded commitment to the proposition that the raccoon will not bother her is justified, then a guarded commitment to the proposition that she can safely turn her back on the raccoon is justified." Ennis's idea seems to be that if we want to know whether to guardedly assert "she can probably safely turn her back on the raccoon" we need to ask whether this guarded assertion is justified and may ask

¹³ Ennis only comes to consider the less crude construal comparatively late in the paper at (2006: 162) where he calls it the Revised Principle. He says that Searle never argues for that principle, but this is not true. Granted, Searle's defence of it is brief: if it were not true, conversation would be impossible.

ourselves a hypothetical question, that is to say, ask ourselves whether we are committed to the hypothetical statement's being true. If we are committed to the hypothetical statement itself (which we should be since it is not qualified) then it depends on whether a guarded assertion that the raccoon will not bother her is itself justified. If it is, then so is "she can probably safely turn her back on the raccoon." This in itself does not make a guarded assertion, but commits us to making a guarded assertion. Neither occurrence of "probably" actually makes a guarded assertion.

This is highly ingenious, though it must be pointed out that much of this ingenuity has been recruited to a false cause, namely that of showing that the speech act analysis "probably" can survive in a context where no actual guarded assertion was made. But we have already seen that Searle does not make this demand of a speech act analysis; his demand, in this particular case, is that a hypothetical statement refer to a hypothetical speech act in the same way that "If I promise . . ." refers to a hypothetical promise. Does Ennis's analysis of this example pass this test?

Much depends here in whether we are prepared to accept the statement that a speech act is justified as referring to an actual speech act. Consider what happens when a performative speech act that is in an antecedent does occur. If "If I promise to wash the dishes, then I ought to wash the dishes" is true, and then I promise to wash the dishes, it follows immediately that I ought to wash the dishes. But if I actually make the guarded assertion "the raccoon probably will not bother her" does it immediately follow that I make the guarded assertion that she can safely turn her back on the raccoon? I *could* make this guarded assertion, and perhaps, as Ennis implies, I *ought* to, but it does not follow from the truth of the hypothetical and the truth of the hypothetical's antecedent that I do make the guarded assertion named in its consequent, as Ennis admits. It is not even clear that I ought to guardedly assert that she can safely turn her back on the raccoon if the guarded assertion that the raccoon probably will not bother her is not justified, whereas in the case of promising it is the promising itself that makes the consequent true, and not the fact – if it is a fact (and it may not be) – that the promising was justified. In contrast, in the case of Ennis's analysis, as long as the guarded assertion in the antecedent is justified, it does not actually matter whether I make it or not; the consequent goes through either way. Ennis's hypothetical statement is likely true but this does not mean that the original statement passes the test — there is a disanalogy between Ennis's analysis and the case of promising that should make us suspicious. To make the point again, terms given a speech act analysis should behave semantically in

the same ways as performative verbs: any deviation is to be viewed with suspicion.

Even if Ennis's analysis does pass the test, we can still ask whether this really matches our linguistic intuitions about what "If the raccoon probably will not bother her, then she can probably safely turn her back on the raccoon" means. The sentence Ennis analyses this as (i.e., that particular guarded assertions are justified) may pass the test, but if this analysis does not seem a very plausible analysis of the analysandum, the fact that the analysis passes the test does not prove very much. The problem is that the antecedent of a conditional needs to be something that is truth-evaluable. Ennis's analysis gets around this problem by analysing the antecedent so that it says that something is justified, but is this really the most natural way of analysing it? Isn't it closer to our linguistic intuitions to say simply that there was a high probability that the raccoon would not bother her? Ennis would not, I think, deny that in saying this we would be saying something true, but he would deny that this is what the original statement means; rather, it is the grounds of this particular statement. I can only say that I find this to be a very strained analysis.

Again, frankly I am not sure, but I suspect that this is what someone who had not been conditioned by the "improbable, but true" kind of case is likely to take this sentence to mean. Since I do not deny that "probably" can be used in the way Toulmin and Ennis defend, I do not have this problem: I can accept the inconsistency of saying "improbable, but true" while still insisting that this is not the only use and that there is a completely valid use where "improbable, but true" is consistent. What I do deny is that this is a possible *meaning* of the term "probably." In that context, Searle's objections seem to me sound and Ennis's manful attempts to discredit them fall short, sometimes to the point of irrelevance.¹⁴ At the heart of it, I think, is Ennis's failure to notice that performative verbs *are* given a speech act analysis; when he says that "promise" and "nominate" are in the same boat as "probably", he does not realise how accurately this reflects the speech act analysis that Searle seeks to discredit: "probably" *should* be in the same boat as "promise" and "nominate" were the speech act analysis adequate, but it is *not* in the same boat, and so the speech act analysis is *not* adequate. It is put forward as a criticism of Searle, whereas, in fact, the whole point of the speech act fallacy is to treat as performatives terms that do not semantically behave like performatives just because those terms have a certain characteristic use in sentences. "Probably" does not behave

¹⁴ Give Ennis credit for trying. In most of argumentation theory Searle's objection is buried in a footnote if mentioned at all, like an inconvenient truth argumentation theorists would rather ignore. Ennis's paper was the only one I was able to find that faced the problem squarely.

like a performative, so, unlike genuine performatives, what it is used to do cannot be constitutive of what it means. Toulmin confuses semantics and pragmatics, and upon this fatal reef his whole attack against formal logic shoals.

5. CONCLUSION

We use the modal word "probably" when we make a guarded assertion, Toulmin says. In the first part of the paper I outline several reasons why we might want to guard our assertions. We might want to guard them because the evidence we have does not conclusively prove the claim we want to make is true. Such an argument would be deductively invalid. However, we might also want to guard them even if we believe that we have a sound and deductively valid argument. Equally, in order to assert something unequivocally we may use the word "necessarily." This may be because the evidence we have does conclusively prove the claim we want to make. However, we might also want to assert something unequivocally even if we believe that we do not have a conclusive proof but only establish it with a certain likelihood. From this, Toulmin concludes that standards of deductive validity are not necessary for justifying our uses of these modal words when we make assertions. I have argued that Toulmin's analysis is committed to the view that they are not sufficient either, though I am not sure whether Toulmin himself would accept this. Up to this point, I agree with Toulmin.

In the second part Toulmin cites several linguistic intuitions and shows that, on the hypothesis that we are using the word "probably" to make guarded assertions, these intuitions are what we would expect, and that they are inconsistent with the view that we use "probably" to assert frequencies, proportions, or probabilifications (when this is taken to be relative to a particular body of evidence instead of to all the evidence). A frequency, for example, is not a probability, but it can be the grounds of our making statements with "probably" in fields where frequencies are the correct way of making probability estimates. Up to this point, I agree with Toulmin

In the third part, I raised Searle's objection that "probably" could not mean "to guardedly assert" or anything like this, because this would make it a performative, and "probably" does not behave like a performative. Toulmin commits a speech act fallacy in his analysis of "probably". Ennis defended Toulmin against Searle. I showed that this defence failed. On this point, I agree with Searle.

Where else do I part company with Toulmin?

Although I agree that standards of deductive validity are neither necessary nor sufficient for justifying our uses of these modal words when we make assertions, I deny that anybody would have ever supposed otherwise, taking modal qualifiers in the way Toulmin takes them. Formal logicians would be quite happy to admit that there are different burdens of proof in different fields, and the relativism implied by this is not threatening to him but simply a fact of life. The logician's concern is not with justifying the use of a particular modal qualifier but with whether the conclusions follow from the premises, and what he deduces from the fact that we sometimes use "necessarily" when the evidence does not deductively entail the conclusion is simply the fact that these are different questions with different answers. The logician need not reject this usage of the word "necessarily," but it is not what he means when he says that the conclusion of an argument is necessarily true — what the logician means is that the conclusion must be true if the premises are true, and this is simply a different usage of the modal word. Toulmin seems to imagine a false dichotomy where, if his analysis is true, any other usage is wrong or contrary to common-sense. I see no need to follow Toulmin in this. There are non-parenthetical uses of "probably."

Although I agree that there are linguistic intuitions that indicate that Toulmin has correctly analysed the parenthetical usage of "probably", I find that there is a genuine clash of intuitions. Rather than saying that one intuition is correct and the other is incorrect, I would rather say that both indicate distinct but genuine uses of "probably"; again, I think that Toulmin operates on the basis of a false dichotomy. I do not agree either that there is no designatum of the word "probability." If this were so, then it seems that the same should be true of "necessity" and "possibility." Or perhaps it would be more circumspect to say that his argument would not show that there were no such things as necessities and possibilities, but that our usage of the words "necessarily" and "possibly" do not refer to such things.

I want to make one further comment on Searle's accusation of a speech act fallacy. Admittedly, it is not entirely clear to what extent Toulmin does take himself to be giving an account of meaning. But Toulmin takes himself to be arguing against formal logicians, and what formal logicians need to know in order to evaluate whether a modally qualified conclusion follows from the premises is what the modal term means. The assertion of the modally qualified conclusion might be used to do something as well, but this is irrelevant to the logician's assessment of the argument. Since Toulmin wants to use this as part of an attack against the logical assessment of arguments, I do not think

that it is really open to him to deny that this is an account of their meaning.

But, in fact, even this will not save him, because the conclusion could have any modality at all – whether it is physical or biological or procedural or whatever – and it would make no difference to the logician's assessment of the argument. In short, an argument about physical necessities is still a logical argument and to be assessed logically; the relation between the premises and the conclusion does not change to being, for example, physically necessary or physically valid just because the premises and conclusion themselves report physical necessities. On the contrary, it is because they both report physical necessities that the physical necessity of the conclusion can follow from the physical necessity of the premises, and Toulmin has given us no reason to suppose that this "follows" means anything other than deductive entailment. Granted, sometimes this might not be enough for us to assert our conclusion unequivocally, that is to say, to qualify our conclusion as "necessary" on Toulmin's analysis, but this only shows that Toulmin is not actually considering the same subject as the logician, though he thinks that he is.

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