

Is that a threat?*

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Abstract I introduce game-theoretic models for threats to the discussion of threats in speech act theory. I first distinguish three categories of verbal threats: conditional threats, categorical threats, and covert threats. I establish that all categories of threats can be characterized in terms of an underlying conditional structure. I argue that the aim – or illocutionary point – of a threat is to change the conditions under which an agent makes decisions in a game. Threats are moves in a game that instantiate a subgame in which the addressee is ‘under threat’.

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George: Try and I'll beat you at your own game.

Martha: Is that a threat George, huh?

George: It's a threat, Martha.

Who's Afraid of Virginia Woolf?

1 Introduction

I am an exceptionally lazy and reckless individual. I want you to go to the bank and fill out some paperwork on my behalf, posing as me and forging my signature. Committing forgery is illegal and waiting in line at the bank is boring; I do not have any reason to believe that you are interested in performing this task.

Nevertheless, there are different things that I could say in order to *persuade* you to go to the bank for me. That is, there are different sorts of *persuasive speech acts* I could perform. For instance, I might *bribe* you into going to the bank for me by saying something like “If you go to the bank, I'll buy you a falafel sandwich”. If I have the authority to do so, I might simply *command* you to go to the bank (“Go to the bank”). I might even try to *warn* you of what the consequences will be if you don't go to the bank (“Mother will be furious if you don't do this for me”). Or, I might try to threaten you. This paper is about threats: specifically, the speech act of a threat and how we might model threats as *game-theoretic* interactions.

Threats are a surprisingly ordinary part of our lives (or so I will argue), constituting a fairly ordinary way in which we try to influence other people's actions. Threats are of particular interest to lawyers and lawmakers, policymakers, and linguists. If an action is perceived to be a threat this can be used to justify physical confrontation or

Is that a threat?

even war. There are ongoing debates in our communities (and on college campuses) about whether, and to what extent, the appearance of certain symbols, signs, and statues, the presence of certain individuals, and casual insinuations of harm made by authority figures constitute a threat to members of the community.

Despite all of this, threats have hardly been discussed by philosophers of language.¹ The aim of this paper is to give an account of what Searle (1976) calls the *illocutionary point* of a threat.² This is the characteristic aim of a particular illocutionary act; what the performance of a threat is directed at.³ I do this by modeling threats as a type of move in a two-player game. I offer a game-theoretic account of the action a speaker performs when they threaten someone; threats are modeled as a move in a game that introduces a particular type of subgame.

Understanding the illocutionary point of a speech act is crucial to a complete understanding of the illocutionary force of that speech act. Important theories of the

1 Perhaps not surprising when we consider how little discussion many socially relevant features of our linguistic practice have received. This has recently changed, with excellent recent discussion on topics like oppression (McGowan 2009), insinuation (Camp 2018), dogwhistles (Saul 2017, 2018), coded political speech (Khoo forthcoming, Stanley 2015), and social meaning (Haslanger 2013) beginning to make waves in analytic circles (the notion of threats, specifically, as a way of silencing is discussed in Langton 1993). This paper owes much, both directly and indirectly, to these works and authors.

2 Searle et al. (1985) identify seven features of illocutionary force, including the illocutionary point (the characteristic aim of a type of speech act) and what they call the *mode of achievement*, which is how that aim is achieved. Though what is offered here is an account of the illocutionary point of a threat, I also raise some considerations throughout about how that aim is achieved (mode of achievement).

3 How exactly to characterize the illocutionary point of a speech act – whether, for instance, it is the intended effect of the speech act, or the outcome associated with a particular convention – will differ depending on one’s general commitments to a theory of speech acts (see footnote 4; thanks to an anonymous reviewer for some comments here).

illocutionary point of other speech acts include the claim that assertions aim to add information to the conversational common ground (Roberts 2012, Stalnaker 1978), and imperatives aim to update an addressee's 'to-do' list (Portner 2007).⁴

This paper will proceed as follows. In § 2 I give a detailed discussion of the phenomenon of verbal threats that my analysis is supposed to capture. To that end, I argue for three general categories of threats: conditional, categorical, and covert. In § 3 I give a game-theoretic account of the kind of action that constitutes a threat. The remainder of the paper is made up of brief sections exploring the wider role that threats play in speech, and also refining the game-theoretic account: in § 4 I discuss the roles that conviction and commitment plays in making a threat appear credible. In § 5 I discuss the relationship between threats and what agents believe or know about the payoff structure of an activity. The paper concludes by pointing to some other projects that might be pursued using this framework.

2 Verbal Threats

The aim of this section is to get the clearest possible picture of the target of this paper: threats. We will start by looking at some examples of threats, with the aim of drawing

⁴ However, a theory of the illocutionary point of a threat does not constitute a full theory of the illocutionary force of a threat. It is not the aim of this paper to weigh in on a more general dispute in speech act theory between different accounts of what it is to perform a speech act (i.e., between intention-based accounts of speech acts and convention-based accounts of speech acts; see Harris et al. 2018 for an overview of the various positions one might take with respect to a general theory of speech acts). But regardless of whether or not we want to give, say, a fundamentally intention-based characterization of the speech act of a threat, there is still an interesting and important question to be asked about the sort of action you perform when you threaten someone. Focusing on the illocutionary point of a threat allows us to say something about threats in general.

Is that a threat?

some distinctions among the variety of cases where it is intuitive / obvious that one person is threatening another person. We will end up with a classification of verbal threats which divides them into three categories: *conditional threats*, *categorical threats*, and *covert threats*.

2.1 Varieties of Verbal Threats

The clearest examples of threats come in the form of what I call *conditional threats*. Conditional threats are threats that have an apparent conditional structure: they includes an action that is threatened, and something that is threatened against (i.e., where a speaker threatens to do something ϕ on the condition that X obtain). For example, imagine being approached by your nemesis on the street; they are wielding a weapon, and say

(1) If you don't hand over your money, then I'll kill you.⁵

This is the form of the conditional threat:

(2) If you [], then I will [].

We might also be used to seeing something like (1) in the following disjunctive form:

⁵ No English sentence is by default a threat—for any sentence to count as a threat, contextual supplementation is required. An utterance of the sentence, “If you come any closer, I’m going to zap you” might be issued to threaten against someone coming closer. But it might also be issued to let the hearer know that the speaker’s sweater is full of static energy, and so she will inadvertently ‘zap’ whoever gets near her. That said, many of the example sentences I use will be recognizable as threats without much context.

(3) Your money or your life.

I treat such disjunctive threats as conditional threats (rather than their own separate category), because they explicitly present something (an antecedent) that is threatened against. (3) is easily translated to:

(4) *If you don't give me your money then I'll take your life.*

Of course, (3) is classically equivalent to (4) (by conditional disjunction). However, whether or not an utterance is a conditional threat is *not* a matter of the logical form of the sentence uttered being classically equivalent to a conditional. Whether something is a conditional threat is a matter of whether or not it is made explicit what the action is that the threat is targeting, or being made 'against'. The action that the threat is being made against in (3) and (4) is the act of not giving the villain your money. Another thing your nemesis might say is something like

(5) Scream and I'll shoot.

which we can translate to

(6) *If you scream then I'll shoot.*

Despite (5) and (6) not being classically equivalent, the action that the threat is targeting (screaming for help) is made explicit in both (5) and (6).

We can also imagine conditional threats where the action that the speaker is threatening to perform (rather than the action they are targeting) appears in the

Is that a threat?

antecedent of a conditional utterance. For example, imagine a group of high school students is being loud on the subway; an older man walks by the group muttering

(7) If someone puts a bullet in you that'll shut you up.

It is clear that what the speaker is trying to get across is

(8) *If you don't shut up, then I'll shoot you.*

That is, it is clear that as long as we are going to take this as a threat, then we ought to think of (7) in terms of (8). The action that the threat is being made against is the act of not shutting up; understanding this is crucial to understanding the threat, and this is made apparent in (7).

Another class of threats is *categorical* threats.⁶ Imagine the train scenario again, except this time when the older man approaches the teenagers he very coldly says

(9) I'm going to fill you with bullets.

or even not so coldly shouts

(10) I'll kill all you little rats!

I take it that this is (or could be taken as) a threat. Presumably, one of the students would report this incident to their friend (or the police) afterwards by saying something like "This crazy guy on the 4 train threatened to kill us!"

Categorical threats are identifiable by the fact that they look more like an announcement of a plan. There is no action that the threat is being made against that is

⁶ Thanks to NAME REDACTED for suggesting this particular terminology for this class of threats.

made explicit, though an action that is threatened against may be salient, and obvious to all involved. However, the action that the speaker is threatening to perform *is* made explicit.⁷

Categorical threats can be difficult to distinguish from mere announcements. Imagine you're on a tour of a medieval dungeon; one of the other groups in your tour includes a middle school bully. This bully has designs on the delicious ham sandwich you've brought with you. After you refuse to give them your packed lunch, they sneer at you and say, "I'm taking you to the iron maiden". This seems like a threat (albeit a fairly silly one). But hundreds of years ago, a torturer in that same medieval dungeon might have uttered that same sentence with the aim of scaring their victim as much as possible before the torture began. This seems less like a threat and more like an announcement. The torturer is telling their victim the plan (announcing it) and though they are doing so in order to scare their victim, they do not appear to be threatening them.

This confusion – between announcement and threat – is also present in more mundane cases. In fact it is one that ordinary speakers seem to use to their advantage. Imagine we're going to the movies in a group of four; three of us want to see *Moonlight* but you want to see *La La Land*. In our group, majority rules, and so I tell you that we're going to get tickets to *Moonlight*; stubbornly you reply:

(11) I'm going home.

This *could* be taken as a threat to go home if we don't agree to see *La La Land*. It could also be something else — imagine if our conversation continues as follows.

⁷ It is also typically made explicit that the speaker will be the one to perform this action. This seems to be part of what marks the (fuzzy) distinction between categorical and covert threats.

Is that a threat?

- (12) a. Me: Did you just threaten to leave if we don't see *La La Land*?
b. You: No - I just realized that I left the oven on!

In other words, what initially seems like a threat might be revealed to be an announcement. What is the difference? Where does the distinction lie? It lies, first off, in whether or not there is an action being threatened against that is recoverable from the context. Taken as a threat, there is something we can do to prevent you from leaving (get tickets to see *La La Land*). Taken as an announcement, there is no the same kind of response.

By leaving what is threatened against 'off the record', so to speak, the threatener also puts herself in a position to deny that she issued a threat at all. This is discussed extensively by [Camp \(2018\)](#), who uses the distinction between what is publicly made available in a conversation (what is 'on the record') and what speakers in fact mutually pick up on (what is 'common ground'), to explain the plausible deniability afforded to acts of insinuation.

The final class of threats that I wish to discuss are *covert* threats, where the action that a speaker is threatening to perform is merely insinuated. I have said that conditional threats are probably the kinds of speech acts we most naturally associate with threats. However, I think it is likely that covert threats occur far more frequently: I think that we covertly threaten one another all the time.⁸

Here are some examples of covert threats. David and Hans are having lunch. Hans announces that he needs to leave to meet with his lawyer, which David does not like (they are disputants in an uncomfortable lawsuit). David, toying with a bottle of malt vinegar, says

⁸ This is a fairly bold sociological claim, and I only stand by it to the extent that many of the cases I identify going forward seem completely ordinary.

(13) Careful getting up, Hans, you don't want to end up with a splash of malted in your eye...

What does David mean by this? He appears to insinuate something to the effect that if Hans attempts to go meet with his lawyer, David will pour sauce in his eye. We can even imagine David's utterance as *overtly* including the action that David is making the threat against:

(14) Going to meet with your lawyer, eh? Great way to *trip* over a log and break your knee...

What remains covert in (14) is the fact that David himself will perform the threatened action.⁹

Covert threats have also been the subject of recent political interest. Here is an example, taken from *The New York Times*, concerning the 2016 US presidential election:¹⁰

Repeating his contention that Mrs. Clinton wanted to abolish the right to bear arms, Mr. Trump warned at a rally here that it would be "a horrible day" if Mrs. Clinton were elected and got to appoint a tiebreaking Supreme Court justice.

⁹ We might think that the conditional/categorical distinction carries over to the category of covert threats as well. For the purposes of this paper, it is enough to acknowledge a distinction between threats which are made overtly, and those which are covert. However, I think further work on covert threats may focus on this subtler way of dividing things up. We might also note that the distinction between overt and covert threats is not one with particularly sharp boundaries.

¹⁰ Corasaniti, Nick and Maggie Haberman (2016, August 10). Trump Suggests Gun Owners Act Against Clinton. *The New York Times*, pp. A1.

Is that a threat?

“If she gets to pick her judges, nothing you can do, folks,” Mr. Trump said, as the crowd began to boo. He quickly added: “Although the Second Amendment people — maybe there is, I don’t know.”

Trump was taken by many to have issued a kind of vague threat of gun violence against Hilary Clinton if she were to be elected president. The threat is rather vague; not in the sense that it is vague whether a threat was issued (it seems clear that this is a threat) but it is somewhat vague — probably even to Trump himself — what the content of the threat is supposed to be. Similarly, consider this exchange from Act 4 of *Hamlet* (Shakespeare 1604: 4.3):

KING CLAUDIUS Where is Polonius?

HAMLET In heaven; send hither to see; if your messenger find him not there, seek him i’ the other place yourself...

This is about as covert as it can get. One way of interpreting this exchange is that Hamlet is threatening to kill Claudius by subtly suggesting that Claudius look for Polonius in heaven.

To recap: we can identify at least three categories of threats that we would ideally like an account of threats to cover.

- Overt and Conditional (‘Your money or your life’)
- Overt and Categorical (‘I’ll gut you!’)
- Covert (‘A terrible thing, to get Worstercire sauce in your eye...’)

The speech act category of a threat needs to be distinguished from outstanding legal categorizations of threats.¹¹ First, legal categorizations of threats typically focus on the notion of a ‘true threat’; true threats are “those statements where the speaker means to communicate a serious expression of an intent to commit an act of unlawful violence to a particular individual or group of individuals” (from Justice O’Connor’s opinion in *Virginia v. Black*).¹² A true threat does not need to be issued with an intention to carry out the action that is threatened.

As *Schauer (2003)* notes, an important distinction between theorizing about speech acts in philosophical versus legal scholarship is that in the latter, the notion of legal status is important. Whether or not something is, strictly speaking, a threat matters a lot less than if a speaker is signaling some kind of intent to do something illegal. A ‘joke’ threat might still put a speaker on the hook in a legal sense if it appears credible enough, or occurs in the right context. But we might hesitate to count it as a threat.¹³

2.2 The Pervasiveness of Threatening Speech

It is one thing to draw attention to a linguistic phenomenon, and another thing to draw attention to how widespread that phenomenon is. Getting clear on the category of speech acts that I am looking at in this paper must involve saying something about the sorts of situations in which this kind of speech act is performed by real speakers.

We can imagine cases of threats that are mundane, and that are representative instances of a common tactic among interlocutors. Doing so will help to show how pervasive a linguistic category threats are. Let us return to an example from above:

¹¹ *Solan & Tiersma (2005)* discuss the treatment of threats in a legal setting (Ch. 10).

¹² *Virginia v. Black* 1538 U.S. 343, 359-60 (2003)

¹³ Thanks to REDACTED for helpful suggestion here.

Is that a threat?

imagine that we are at the movie theater, but cannot decide what to see. I want to see an 8 pm showing of *Moonlight* and you want to see an 8 pm showing of *La La Land*. When I tell you that I would really prefer not to see *La La Land*, you say:

(15) Well, maybe I'll just go home...

Almost everyone has been in a situation like this; most of us — though we are loathe to admit it — have probably *done* something like this. 'This' being: threatening to do something that is preferable to no one (i.e., going home instead of seeing any movie at all) as a kind of 'bluff' in order to get one's way.

(15) is an example of a covert threat. But you *might* have been more bald-faced, and said something like the following instead:

(16) If you get a ticket to *Moonlight*, then I'm just going to go home.

I would have thought, probably, that you were more interested in us seeing a movie together, than you getting your way. Why might one prefer (15) to (16), at least in some situations? Intuitively, we might think that one reason is that making it explicit what action a threat is targeting reveals to both speaker and audience how trivial the stakes are. It will cause the threatener to 'lose face', and perhaps even lose credibility among their peers (Mao 1994, Watts 2003).

As I have already noted, by not making it explicit that you are threatening to go home because I might buy a ticket to a movie you don't want to see, you retain some plausible deniability about what you are doing; you can deny that what I took to be a threat was ever intended as such (Camp 2018, Fricker 2012, Pinker et al. 2008).

If you say (15), then If I accuse you of being childish or selfish, you can just say something like:

(17) I'm sorry, I just have responsibilities at home; *you're* the one being childish.

This is not possible if you utter (16), where the reason for your departure is clearly stated.

Covert threats occur in situations with different power dynamics as well. Imagine a child asking their parent to take them to the movies. The parent would rather not go to the movies and so says something like:

(18) Well, I'm just not sure that we'll have time to get ice cream as we'd planned, if we go to the movies.

The parent knows full well what the child is more likely to prefer (ice cream, in this case). It is a very effective threat for this reason; a threat that is disguised as some kind of warning about the amount of time they will have.

The upshot of this discussion is that we can identify, in a general way, something about the aim of a threat. The characteristic aim of a threat seems to be to change the conditions under which someone is making a decision. Threats do this by (in the conditional case) explicitly identifying a decision you would like the speaker (not) to make, and (in the overt case) explicitly identifying an action you will perform in retaliation if they fail to cooperate (we will refine this below). This is what we might identify as the *illocutionary point* of a threat (Searle 1976, Searle et al. 1985).

Is that a threat?

3 A Game-Theoretic Account of Threats

To verbally threaten someone is to perform an illocutionary act of a particular sort (Austin 1963); a threat is a particular sort of action that we perform by speaking. As I noted at the outset, what this paper does not offer is an analysis of the conditions under which some utterance counts as a threat (i.e., I do not offer a full account of the *illocutionary force* of a threat). In this section I give an account of what an action with the illocutionary force of a threat is aimed at doing. I give this account from a game-theoretic perspective (which is a good perspective to take when considering human interaction).¹⁴

It is common to think of linguistic interaction as the kind of thing that we can model using game-theoretic tools.¹⁵ Threats are actions aimed at bringing about certain states of affairs. We might thus think that (a) this will be a kind of state of affairs that can be modeled as a state of play in a game between conversational participants, and (b) the act of the threat can be modeled as a kind of move in a game.

Before moving to the model of threats itself, I will set up some of the background assumptions about games / game theory being made. I will use game trees to model two-player games.¹⁶ The information that appears on the game trees (the moves available to each player and the payoffs for those moves) represent facts that are

¹⁴ Threats have been discussed in game-theoretic contexts before; see Klein & O'Flaherty 1993, Schelling 1960 / 1980 for alternative accounts of threats in the context of a game.

¹⁵ See foundational work by Lewis (1969, 1979), as well as recent work by Franke (2013), Skyrms (2010). See McGowan 2009 for an application of game theory to acts of oppression in speech, which is in the same vein as the account presented here.

¹⁶ Due to constraints of space, I assume some basic familiarity with the formal tools of game theory. Readers looking for an introduction to game trees should see Gintis 2000 or Ross 2016.

mutually accepted as true by the players, in virtue of their participation in the game/activity in question. We can think of this as the informational context in which a linguistic interaction takes place.

It is important to flag that my use of ‘mutual acceptance’ – and my notion of informational context – is neutral between subjective and objective characterizations. On a subjective characterization, what is mutually accepted just is the information that is mutually *presupposed* by agents in a communicative exchange, or what is *common ground* (Stalnaker 1978, 2002).¹⁷ On an objective characterization, this can be information that agents implicitly endorse, but do not necessarily have access to. A simple example of this: I may accept the rules of a game of chess without knowing what each of those rules says. It is natural to think of this as information that an agent ought to be aware of (Camp 2018).

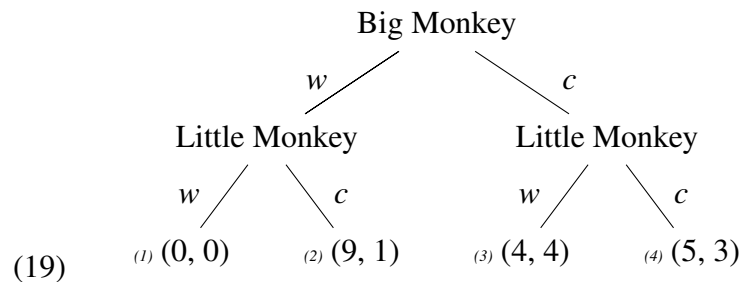
Even without committing to a particular (objective or subjective) characterization of a context, we can easily draw distinctions between information that is part of the context (though it may not be shared) and information that is not. If you are playing a game of chess with someone, it would certainly be ideal to know that moving a piece to E-4 will trigger an explosion. However, if neither player is or ought to be aware of this, it would not make sense to assume it is represented as part of the game they are playing. (One way of thinking about this: they would not be rationally criticizable for moving to E-4.) Thus, facts that may have some sort of effect on the way events in a game unfold, but which are not mutually accepted, are not represented in the game.

¹⁷ These terms – ‘acceptance’ and ‘presupposition’ – are sometimes used interchangeably in this literature; I reserve ‘acceptance’ to refer to the neutral conception and ‘presupposition’ to refer to the psychological conception. I believe that my use corresponds with an ordinary conception of what it is to accept a rule.

Is that a threat?

Things that are only accepted by one party in an exchange are not represented in the game tree.¹⁸ It is likely that in many cases players believe themselves to be playing games which do not exactly match (one or both players may even realize this, and try to exploit it). For example, it is likely that we do not always have a very precise sense of what kinds of payoffs our opponents assign to particular outcomes (not as precise a sense as our opponents, at least). It might be the case that I know that moving a chess piece to E-4 will trigger an explosion that will kill only you. If this is a desired outcome for me, then my aim in the chess game is to get a piece to E-4, while your aim is to capture my king, and you believe that my aim is to capture your king, and I believe that you believe that your aim is to capture my king and that my aim is to capture your king. . .

The notion of a game in which one player is threatened by another is actually fairly common to textbook-level discussion of game theory. Here is an example, taken from [Gintis 2000](#) (p. 5):¹⁹



The game trees used here represent diachronic choice procedures. The player at the top of the tree ('Big Monkey') has a choice between two actions: in this case,

¹⁸ The role of such information in modeling discourse is beginning to be acknowledged to a greater extent; see [Camp 2018](#) for just one recent discussion of the different roles played by different classes of information in a conversation.

¹⁹ I have labeled the nodes '1', '2', etc.

these are waiting (w) and climbing (c). Given that the first player picks one of those actions, the second player (in this case, ‘Little Monkey’) has actions to choose from. These may be the same set of choices regardless of what the first player does (as in this case), or the second player’s choices might be affected in some way by what the first player does (as, for example, in a case where player 1 has an option to deplete a resource that would otherwise be available to player 2). It is likely to be the case that the payoffs will change for player 2 based on what player 1 does. These payoffs are represented as pairs of numbers. The first number is the utility to player 1 (given that the players make the moves that lead to it) and the second number is the utility to player 2.

In the above tree, Big Monkey’s best move is w (Big Monkey’s highest ranked outcome is node 2); w is an equilibrium strategy for Big Monkey. Little Monkey’s highest ranked outcome is node 3, which requires Big Monkey to act against their own self-interest. Since Big Monkey gets to go first, Big Monkey can basically force things to come out ideally for them, as long as Little Monkey is behaving rationally. But Big Monkey’s *lowest* ranked outcome is node 1. So, one thing Little Monkey might do — it is often claimed in these textbooks — is to threaten Big Monkey.²⁰ Specifically, Little Monkey might tell Big Monkey that Little Monkey will perform move w *no matter what*.²¹

So, let’s imagine that before Big Monkey makes their first move, Little Monkey says “I’m going to do w no matter what” or “If you do w, then *I’ll* do w also.” This is a threat, and it is one that is made with the intention of forcing Big Monkey to

²⁰ See (Gintis 2000: 7); Gintis discusses the possibility of Little Monkey making an ‘incredible threat’.

²¹ In this case, this threat may not have a whole lot of credibility, as node 1 is Little Monkey’s lowest ranked outcome as well. This is why the appearance of conviction is often so important to threats (Section 4).

Is that a threat?

make a different move, which would be more beneficial to Little Monkey. Threats in this sense are thus typically treated as some sort of metagame action. But now we might ask the following: couldn't this kind of an announcement itself be represented as a move in a game?

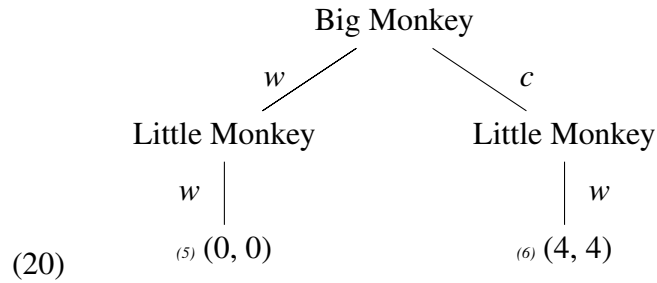
3.1 Being Under Threat

First, let us identify a state in which one player is *under threat* from another.²² What it is to be under threat is to be in a particular kind of game. It is a game with the following sort of features.

- The player who moves first (P1) has a choice between actions a and b.
- P1's highest ranked outcome is (a,X); so action a is in some sense the most desirable action for P1.
- However, performing action a is likely to bring about a retaliation from another player (P2).

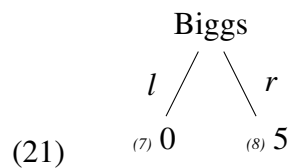
In other words, P1 can only perform this action at the risk of incurring a move from P2 which would bring about a disutility to P1. Consider the case above: Little Monkey is attempting to put Big Monkey under threat by making Big Monkey's preferred action w likely to bring about a retaliation from Little Monkey. Big Monkey's best move is w because their highest ranked outcome is node 2, and node 2 is an equilibrium. But by uttering "I'm going to do w no matter what" Little Monkey is attempting to make it seem as though Big Monkey's lowest ranked outcome – node 1 – is more likely to occur than node 2 if Big Monkey plays w. We can represent the state in which Big Monkey is under threat as follows:

²² See Ross 2016 for some discussion of this notion.



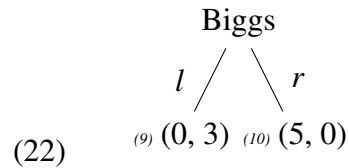
(Note that the possibility of Little Monkey doing c has gone away.) The act of performing a threat is, basically, to perform a move in a game that takes players from a game like (19) to a game like (20) (we will refine this shortly); threatening speech is speech that performs this kind of act.

There is a lot that still needs to be explained, including what it could even be to perform a move in a game that changes the payoff structure in the way that I am describing. Let us consider another scenario to demonstrate. Biggs has a choice between two options: he can take the last slice of pizza (left on the table at the end of the department party) thus satisfying his pizza craving (and netting him 5 satisfaction points), or he can do nothing, experiencing nothing except the slight anguish of missing out on the last pizza slice (this is his usual state and so it nets him 0 satisfaction points). Doing nothing is ‘ l ’ and taking pizza is ‘ r ’.



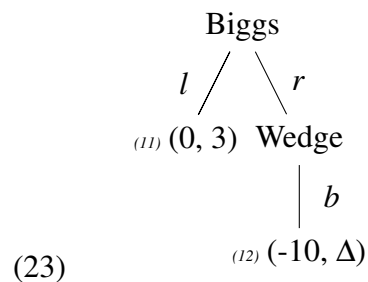
But Biggs is not alone. Wedge is also in the room, and she wants the pizza too. The problem is, Wedge is across the room and Biggs is hovering over the pizza box. To Wedge, the game looks as follows:

Is that a threat?



If Biggs takes the pizza (r) then it is game over for Wedge. But if Biggs does nothing (l), then Wedge can get the pizza, (which is why Biggs’s move ‘l’ has a utility for Wedge).²³

There are a lot of things that Wedge could do to prevent Biggs from taking the pizza, for example, she could overturn the table. But one thing she might try to do is change Biggs’s beliefs about the structure of his decisions in the game.²⁴ Wedge probably realizes that Biggs would not take the pizza if Biggs believed that doing so would cause him physical pain; for example, Biggs would not take the pizza if he believed that doing so would result in Wedge punching him in the face. We can represent Wedge’s preferred scenario with the following game, which is one in which Biggs is under threat from Wedge with respect to pizza-taking.



So, Wedge needs to get from the game tree represented in (22) to the one in (23) (specifically, Wedge needs to get Biggs to believe that they have moved from (22) to

²³ We could represent this more completely with an additional set of moves for Wedge, but it is not necessary to do so.

²⁴ Changing one another’s beliefs is part and parcel of being a human who can speak. For example, Wedge might just say “Hey Biggs, that pizza is terrible”, and then take it while they’re not looking.

(23)). To do so – that is, to do something that changes the accepted payoff structure of the game being played, in this way – is to threaten Biggs.²⁵

3.2 Performing a Threat

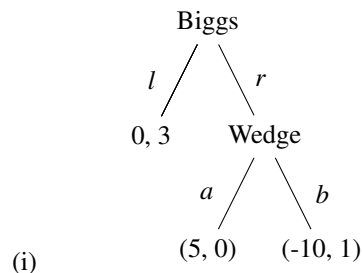
If Biggs believes that he is in a game where he is under threat from Wedge, then he will not take the pizza (unless he is behaving irrationally). Wedge’s threat will be ineffective if Biggs does not come to have this belief; the threatening action is thus aimed at getting Biggs to accept this change. We can put a theory of the illocutionary point of threats as follows:

(24) THREAT

The illocutionary point of a threat is making an opposing player accept a shift to a game where she is under threat.

A threat is an action made with the aim of making an opposing player accept a shift to a game where she is under threat.²⁶

²⁵ There are other ways we could represent the state of Biggs’s being under threat. For example, it might be the case that we want to represent it in terms of Wedge placing a greater utility in punching Biggs (b) than doing nothing when Biggs goes for the pizza:



²⁶ To say that this is the aim of a threat is not to suggest that a speaker must have a particular sort of communicative intention in order to threaten.

Is that a threat?

Wedge threatens Biggs successfully if Wedge does something that takes Biggs from entertaining only one state of affairs (a standard game of ‘take the pizza’, i.e. (22)) to a state where Biggs is aware that they might be playing a different game (the one in which Biggs gets punched if they take the pizza, i.e. (23)).

Further, we can say that the success of Wedge’s threat will be judged on how close Wedge’s action brings Biggs to *only* entertaining (23) (as opposed to there being some epistemic indecision on Biggs’s part as to whether (22) or (23) is the game they are in). For now let us focus on successful threats, which take a player to a state where she is aware of just one possible game she could be in.

Of course it is not so simple as just stipulating: Wedge moves Biggs from an epistemic state representing the game in (22) to an epistemic state representing the game in (23). We need to specify an action Wedge performs. In some sense, the action Wedge performs must be descriptive, in that Wedge needs to describe to Biggs how the game they are playing has changed (because getting Biggs to accept this change is what makes the threat successful). Wedge needs to tell Biggs that the world is now a certain way, and for her threat to be effective she needs to be convincing when she does this. To perform an utterance of this sort constitutes an attempt at moving Biggs from a state where he accepts (22) to one where he accepts (23).

What kind of utterance can do this? The best way of communicating how a game will unfold is by telling a player what is going to ‘happen next’ in the game. So Wedge might say

(25) Here’s what’s going to happen next: you’ll either let me take the pizza, or you’ll take the pizza and then I’ll come punch you.

which can be simplified to

(26) If you take the pizza I'll punch you.

Often there will be conventional presuppositions associating a particular action with a particular aim; these play a role in constraining what outcomes are likely given that a speaker performs a given action. If Wedge says to Biggs “I love pizza” and Biggs, being rather paranoid, comes to believe that Wedge will punch him if he takes the last slice, Wedge will not have thereby threatened Biggs (even though Wedge has done something to bring about a belief in Biggs that they are in a game where Biggs is under threat). This is because there are constraints on the kinds of things you can say *without* intending to threaten someone and thereby threaten them.

Of course, if Wedge's intention in saying “I love pizza” was to trigger Biggs' paranoia in exactly this way, then we might appeal to the conventions that exist between Wedge and Biggs, which give rise to this recognition. The presupposition between the two of them makes Wedge responsible for a certain kind of proposal to change the conversational score (Lewis 1979).²⁷

4 Conviction and Credibility

Wedge has threatened Biggs by saying:

(27) If you take the last slice of pizza I'll break your face.

²⁷ Even those who endorse convention-based accounts of speech acts accept that there is at least this sort of role played by intentions in establishing and maintaining conventions (Lewis 1969). See Armstrong 2016 and Geurts 2018 for some further discussion of the relationship between the conversational common ground and convention.

Is that a threat?

So, Biggs has a decision to make: whether to take the pizza or not. Part of this decision will be based on how seriously he takes Wedge's threat (i.e., whether he accepts the shift to a game in which he is under threat in the first place).

Biggs might not accept what Wedge has said. In other words, he might be unsure if Wedge will carry through with the action or not – unsure if (23) is an accurate representation of how things now stand. What will make the threat more convincing is if it seems *credible*.

A threat to ϕ if your addressee does not ψ is only credible if carrying out the threat (doing ϕ) appears as though it will be the threatener's actual response to her interlocutor's non-compliance (the decision not to ψ). If all players are believed to be behaving rationally, then this means that carrying out the threat must appear as though it would be the threatener's best response to her interlocutor's non-compliance.²⁸ But often this is not the case, from the threatener's point of view. Consider the pizza case: for Wedge, there is no apparent utility to her actually punching Biggs in the face for taking the last slice of pizza. The pizza will land on the floor, and she will likely be arrested for assault. What makes the threat credible?²⁹

I think there are two ways threats can be credible. The first is that the threatened action can be an action that actually appears to be the threatener's best response; it may be that this action was always available to the threatener, but was not represented

28 We might imagine that there is a difference between a threat that is credible and a threat that is merely *apparently* credible. My concern here is the appearance of credibility: whether it seems to an audience that the action threatened will have a utility to the threatener that makes it worthwhile to actually carry out.

29 Credible threats can be distinguished from the legal notion (mentioned earlier) of a *true threat*. True threats are threats that are issued with an intention to communicate a credible (criminal) intent; they may fail to be credible in the sense discussed here. The question of the role played by intent in a characterization of true threats has also been questioned (Crane 2006).

in the context of the exchange. For instance, it may be that the common ground lacked some information, and this prevented the response from being represented in the game model. Someone who is a sadist and gets a great boost out of doing violence will be a credible threatener in this way. So will someone with low impulse control, and is unable to ignore short-term strategies (like pursuing the thrill of revenge) in favor of long-term ones (like maintaining stable relationships). Because it is appearances that matter here, merely appearing to be sadistic or irrational is, itself, a strategy in issuing threats.³⁰

The second way that a threat can be credible is if issuing the threat is part of an iterated strategy. It may be that a player's actions in this game gives other players evidence of how they will act in subsequent games and so performing the threatened action is the best response in the long run (i.e., as pertains to subsequent games). It might not be in Wedge's interest to be charged with assault, but if she goes through with punching Biggs after he takes the pizza, but she might place some value in (the possibility of) appearing to be someone who would risk prison time in order to ensure that she had the last slice of pizza. Over time, if she plays enough games of 'take the pizza', the negative consequences of having punched someone for a slice may become worth it.

³⁰ Richard Nixon called this the 'Madman Theory':

I want the North Vietnamese to believe I've reached the point where I might do anything to stop the war. We'll just slip the word to them that, 'for God's sake, you know Nixon is obsessed about Communism. We can't restrain him when he's angry – and he has his hand on the nuclear button' and Ho Chi Minh himself will be in Paris in two days begging for peace (Haldeman 1978: 122).

Is that a threat?

So Biggs has to decide whether to treat Wedge's threat as credible; but Biggs is not the only one with a decision to make. After making the threat, Wedge has to decide if she will go through with her threatened action *given that Biggs takes the pizza*. Not all credible threats are realized (and vice versa), nor are all credible threats (or all realized threats) threats that the speaker intended to carry out.

5 Information, Influence, and Payoff

To threaten someone is to perform a move in a game that alters another player's payoff structure in a particular way, such that this change in perceived payoffs influences their behavior. Threats are not the only way that we influence one another's actions by affecting payoffs. Consider the following example:

Rope Bridge

I am crossing a rope bridge to meet you on the other side. You start to cross the bridge to meet me halfway. I believe that if you make the move of crossing the bridge, it will break. I realize as you start to cross that you do not share my belief about the strength of the bridge; I say "If you try to cross the bridge it will break!"

This is a warning, rather than a threat.³¹ But structurally it is very similar to a threat. In this example, I make an utterance with the aim of changing your view of the situation from one where no apparent negative consequence results from your action (crossing the bridge) to one where a negative consequence results. Further, I do this with the aim of getting you to act differently than you otherwise would. What is the difference between this and a threat?

³¹ Solan & Tiersma (2005) note that threats and warnings are closely related to predictions.

At first pass, the following distinction seems quite natural: to warn someone of something is to give them information about the world with the aim of changing their behavior; a threat, on the other hand, attempts to change the dynamics of an interpersonal interaction. Warnings ‘set the record straight’ whereas threats are attempts to change that record (these things may not be mutually exclusive, as we will see).³²

There are some distinctions that need to be drawn here in order to spell this suggestion out: specifically, the distinction (already discussed in section 3) between objective and subjective aspects of an informational context. A warning, unlike a threat, is not a straightforward attempt to change the game being played; but to the extent that warnings offer new information about the consequences of a decision open to an agent, they do change the game being played *from that agent’s perspective*. Thus, we need to appeal to the idea that when players participate in a game, there may be features of the game that they are not aware of (though they may still ‘accept’ or endorse those features in an indirect sense).

In explaining two-player games in section 3 I appealed to the notion of mutual acceptance: I said that the information on a game tree represents facts that are mutually accepted as true by the players in a game. I noted that it is possible to understand the notion of mutually accepting some payoff structure as one on which payoffs are completely reducible to what is mutually presupposed by players in a game. But if we take game trees to represent whatever agents mutually presuppose to be true in an interaction, then the claim that a speaker may be unaware of the game they are playing is incoherent.

³² This is in line with some of Parfit’s (1984) comments about the difference between threats and warnings.

Is that a threat?

Camp (2018) points out that objective and subjective notions of an interactional context are both important. I think this distinction can help us make sense of the difference between threats and warnings. In any conversation there will be things that are mutually presupposed by conversational participants for the purpose of the conversation. Such information is part of the conversational *common ground* (Stalnaker 1978). In linguistic interactions there will also be objective facts about what is going on at any given moment; these are “the product of the conventions governing either language use itself or social interaction more broadly” (Harris et al. 2018: 18). Our interactions are governed by these facts regardless of what we in fact know or understand about the way that they govern our interactions.³³

Imagine that two people are playing a game of chess where one player has a better understanding of what follows from particular moves. So, for example, one of them (Player A) knows that if Player B moves her knight from E2 to F4 she will open her king to a check. The fact that Player A, but not Player B, knows that this is what will happen does not change the fact that Player B is part of a game with this structure. Player A, seeing that Player B is about to move her knight to F4, might decide that she wants to prevent her friend from making an embarrassing move and say “If you move your knight to F4, you’ll be at risk of a check”. This utterance gives Player B information about the game that they are *already* playing (thus we view it as a warning, rather than a threat). Further, it seems like information that the player ought, in some sense, to be aware of.

Player B may have been unaware of the payoff structure of the game they were playing, but that does not mean that when Player A tells Player B what will happen

³³ See the large literature on game-theoretic pragmatics for an explicitly game-theoretic account of this (Franke 2013, Roberts 2012).

when they move their knight, that Player A is thereby changing the game that Player B is playing. Player A is giving Player B information about the game they were already playing. What does it mean to say that Player B is playing a game without knowing what the payoff structure of that game is?³⁴ One thing we might say is that in deciding to play a game of chess Player B has allowed her interactions with Player A to be governed by a particular payoff structure; she has agreed to play the game of chess with its ordinary rules. This payoff structure is something that is mutually accepted by A and B *without* their necessarily being fully aware of all the actual details of the game.

So, both threats and warnings offer information that change an agent's payoff structure from *her* perspective. Intuitively, though, an agent's perspective on a game can change in (at least) two different ways: on the one hand, her perspective can be made to conform to the game; on the other hand, her perspective can change because the game itself changes. If you are playing a game of chess and you make an illegal move, then being told that the move you made is illegal is being told something about the game you are already playing. Your perspective is being made to conform to the game. If you are playing a game of chess and, partway through, your opponent announces that it is now illegal to move pawns forward, then you are being pressed to accept a *new* game. Likewise, in 'Rope Bridge' you are given information about the world, not being pressed to accept a new game.³⁵ From the perspective of an addressee, both a threat and a warning will change her perception

34 See van Benthem 2011, Stalnaker 1996 for more on multiplayer games where one or more player is uncertain of the payoff structure and outcomes.

35 We might not think of 'Rope Bridge' as involving any game at all, if we think of games as interpersonal interactions. Or, more philosophically, we might think of agents as engaged in a game they play against the world (see Lewis 1978 for an articulation of basically this idea). The warning in 'Rope

Is that a threat?

of the game being played: a warning by giving information (and thus changing what is mutually believed) and a threat by changing the game.

This also helps explain why people are rarely (though not never) in a position to issue a threat on someone else's behalf: a threat changes the game being played, which means someone can only issue a threat if they have some control over the game being played. Let us think about the difference between a case where Wedge threatens Biggs with a punch, and a case where some third party – Luke – tells Biggs what is going to happen. These utterances might make the same informational contribution to the conversation, but they do not have the same effect on the game being played between Wedge and Biggs. An utterance of,

(28) If you take the last slice I'll punch you.

spoken by Wedge, and an utterance of,

(29) If you take the last slice Wedge will punch you.

spoken by Luke, make the same informational contribution. But in most contexts, (28) will count as a threat and (29) will not.

This is because a threat adjusts the payoff structure in a way that a warning does not. The warning is meant to be illuminating about the state of play: from Luke's perspective, Wedge and Biggs are in a game where Biggs' taking the last slice of pizza will be met with retaliation from Wedge (whether Biggs and Wedge should adjust their own perspectives to match this one is another matter entirely).

(28) counts as a threat because the game that has been mutually accepted as the one

Bridge' gives information about this game; a warning constitutes an attempt to make a hearer aware of the rules of the game that they are playing against the world.

they are playing is one in which taking pizza does not result in getting punched in the face. Thus, Wedge's utterance of (28) is an attempt at *changing* the mutually accepted payoff structure.

(29) counts as a warning because it is not a proposal to change the game – this is not something that Luke is in a position to do – it is meant to give Biggs information about how the world is, in spite of what Biggs believed the world was like. Something like: *contrary to what you may have thought, when you entered into this social interaction with Wedge, you put yourself in a position to be punched if you take the pizza.*

A threat might do this *too*, in the sense that it might be the case that Wedge decided, long ago, that she would punch Biggs if he takes the pizza.³⁶ But even if Wedge's utterance of (28) reveals something that she already believed about the world, it could still constitute a shift in the payoff structure of the game that Wedge and Biggs are playing.

Things thus become complicated when a speaker gives information about her own game theoretic interaction. Sometimes it will be easy enough to distinguish such cases from threats; if it is a convention that whoever takes the last slice of pizza gets punched – if this is something that the addressee ought to know – then saying as much will not constitute a threat. But in other cases, the line between threat and warning may be blurred.

For example, consider the following case:

Sinister Rope Bridge

³⁶ This is how the line between a threat and a warning may sometimes be blurred. It is often acknowledged, however, that performances of speech acts may instantiate distinctive, overlapping perlocutionary acts (see Searle 1969 for an early articulation of this idea).

Is that a threat?

I am crossing a rope bridge to meet you on the other side. You start to cross the bridge to meet me halfway. I believe that I will push you off the bridge if you try to cross (i.e. this is how I believe the world is). I realize, to my surprise, as you start to cross that you are likely not to believe the world to be this way (let's say I have some reason to expect you to); I say "If you cross I'll push you!"

Is this a warning or a threat?

One thing that seems relevant is that after you decide to perform your threatened-against move (walk across the bridge) I face a subsequent decision about whether or not to carry out my 'retaliation'. This is not so for the Rope Bridge case, where I have no control over whether the 'retaliation' is carried out.³⁷ Sometimes the choices we have yet to make are quite bound up in the decisions we have already made, and it is not clear whether we are informing about a firmly held position or creating a decision.³⁸ In general, however, we can hold onto the following slogan: warnings are an attempt to change someone's behavior in a game by giving them information (sometimes about the game being played), whereas threats are an attempt to change someone's behavior by changing the game being played.

6 Conclusion

This paper has attempted a lot; here is a brief recap.

³⁷ Thanks to NAME REDACTED for some helpful conversation on this point. This is similar to the distinction between threats and warnings discussed by Fraser (1998), and later by Solan & Tiersma (2005). Fraser holds that the difference between threatening someone and warning someone about one's own future action has to do with whether the subsequent action threatened is intentional or not.

³⁸ Consider an example like a sign that says 'Trespassers will be shot'. Is this a threat or a warning?

- i. I argued for the categorization of threats into three different kinds: conditional, categorical, and covert.
- ii. I then gave a game theoretic account of the illocutionary point of a threat. I argued that to threaten is to perform a move with the aim of taking a target player from one epistemic subgame to another one in which their subsequent decisions are ‘under threat’ from the threatening player.
- iii. In the last few sections I expanded this account by addressing some questions about its scope: these included questions about credibility and the difference between threats and warnings.

Though a lot has been attempted, a lot more remains to be done.

One thing that needs to be done is for there to be given a more comprehensive account of the role that intentions play in issuing threats. I have stated that a threat is a move in a game aimed at making the kind of change in the epistemic state of the player marked above. This could have just as easily been put in terms of “intention” and not “aim”. Those who have offered accounts of threats have often noted that threats must involve some sort of threatening intention.³⁹

While I do not doubt that an intention of some kind is required for issuing a threat, I also suspect that it will not be sufficient for a speech act to count as a threat that it be accompanied by an intention of a particular kind. What is constitutive of threats, I have claimed, is that they are a kind of *action*. To the extent that certain actions — even speech acts — may be performed without the performer intending

³⁹ See, for instance, Fraser 1998). Fraser holds that a threat “involves conveying both the intention to perform an act that the addressee will view unfavourably and the intention to intimidate the addressee” (159).

Is that a threat?

them as such, we may think that threats fall into this category.⁴⁰ While I think this is an interesting and productive line to pursue, I do not have the space to fully address it here.

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⁴⁰ See McGowan 2004 — especially pages 94–97 — for more discussion on this point.

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Is that a threat?

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