Drama Without Tears

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Our lives are built around compromise. Throughout each day we "negotiate" with others in an attempt to obtain mutually acceptable outcomes. Drama Theory addresses problems involving multiple actors with conflicting objectives. These problems can be a regular feature of everyday life. They routinely occur at all levels of society – from personal relationships to international politics.

This tutorial describes the Drama Theory paradigm and two of the techniques used to apply the theory – Confrontation Analysis and Immersive Briefings. The historical development of Drama Theory is discussed, followed by a detailed description of the ways in which an analyst can exploit Drama Theory to study various forms of conflict. Examples of the theory in use are scattered throughout the text, illustrating the application of the method within numerous and diverse domains.

The goal of the tutorial is to provide the reader with sufficient knowledge of Drama Theory to recognise problems that may benefit from its application and to apply the basic techniques to their own problems.

Keywords: Drama Theory; game theory; Metagame Analysis; negotiation; decision support

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Introduction

Our lives are built around compromise. Throughout each day we "negotiate" with others in an attempt to obtain mutually acceptable outcomes. In the majority of cases we may not even be conscious of arriving at a compromise – we are culturally (or even biologically) conditioned to strike these bargains. However, at other times we are painfully aware of the need to negotiate – often until we are blue in the face!

Take the last twenty fours hours of my life. Sarah, my girlfriend, watched two soap operas last night. On completion of the second programme, I immediately switched over to one of those comedies that apparently "only teenagers watch". But, on this occasion, I encountered no resistance – we had an implicit agreement. She watches the soap, I watch the "childish" comedy. Later that night, we retired to bed, subsequently undertaking a rather more explicit negotiation, which I will refrain from documenting.

In the morning, I crawled[1] into my car, pausing only to feel a little guilty about the out of date tax disc. I resolve to replace it that afternoon – after all, what would the world be like if everyone was so lax? On arriving at work, I agree to make a joint presentation on a project milestone with one of my colleagues. Unfortunately, this presentation clashes with a meeting I was scheduled to attend. I approach my resource manager as I want one of his people to take my place. He agrees to "look into the availability" of the individual.

Finally, I start preparing for a bid I intend to lodge in this year's research programme. But at what level do I pitch it? If I ask for too much, and the area is oversubscribed, I will come out with nothing. However, a modest proposal may be swept aside by ambitious, groundbreaking research. It certainly is a quandary – and my head begins to hurt after a few minutes.

These decisions I have faced are the tip of the iceberg. All my actions are influenced, to some degree, by the likely decisions, reactions and responses of others. Why?

[1] I work with the military – it's de rigueur to arrive at work before dawn.

Because the actions of others partially determine the *outcome* of my decisions. It would be a relatively simple task to design a research project, cost it and bid into the research programme. However, the actions of others are likely to interfere with my finely crafted plans. As a result, my finely crafted plans need to account for the actions of others.

Meanwhile, other bidders are considering me in their (not so finely crafted) plans! And, to cap it all, we are all looking for ways to enhance the profile of our own proposals, lower the standing of other proposals and form profitable coalitions to leverage our proposals. At this point, you begin to search for a method of organising and making sense of your options – and, surprisingly enough, this is the topic of the tutorial.

Drama Theory addresses problems involving multiple actors with conflicting objectives. It has been suggested in previous paragraphs that these problems can be a regular feature of everyday life. In fact, they routinely occur at all levels of society. For example:

- interpersonal relationships (e.g. one of the partners in a relationship is having an affair);
- interdepartmental negotiations (e.g. yearly budget allocations);
- organisational conflicts (e.g. corporate takeovers);
- civil conflict (e.g. political lobbying);
- international relations (e.g. Iraq's invasion of Kuwait).

As a theory enabling us to obtain a better grasp of some of these problems, and assisting with the development of resolution strategies, Drama Theory is an invaluable addition to our analytic toolkit. In the remainder of this tutorial, we will:

- explore some of the background behind the development of Drama Theory;
- learn how it can be applied in decision support and mediation problems;
- apply it to a "real" example;
- briefly outline some of the software tools that can be used to support Drama Theoretic analyses.

The Evolution of Drama Theory

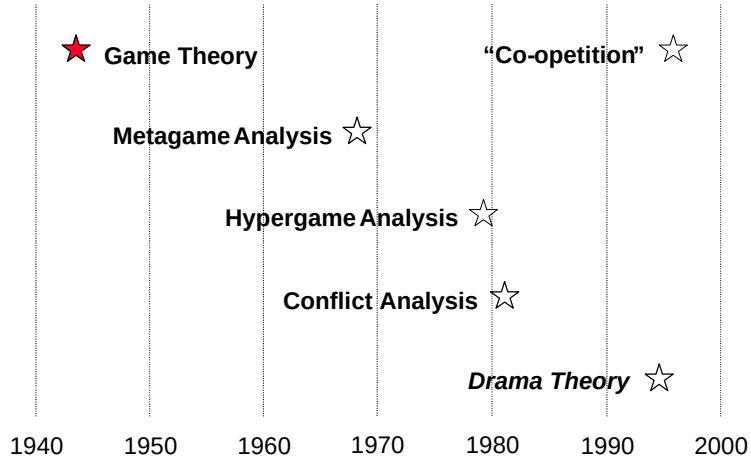

Figure 1: History of Drama Theory

Drama Theory has it roots in the concepts introduced by game theory. Figure 1 illustrates some important events in the history of Drama Theory. "Co-opetition" refers to a book by Nalebuff and Brandenburger (Nalebuff 1996). Although this work had little direct contribution to the development of Drama Theory, the authors have done much to revive interest in game theory and, as such, I feel its recent publication may be important to Drama Theorists.

A discussion of game theory, as the historical basis of Drama Theory, will be important in developing an understanding of our topic. Each of the other areas mentioned in Figure 1 can be followed up via the references: Metagame Analysis (Howard 1971); Hypergame Analysis (Bennett 1979); Conflict Analysis (Fraser 1980). In particular, the literature on Metagame Analysis is highly relevant.

Game theory

Game theory was devised by John Von Neumann, a prolific scientist who also found time to invent the digital computer and contribute to America's fledgling atomic weapons effort. In conjunction with the economist Oskar Morgenstern, he published his ideas (on game theory) in a classic text entitled "Theory of Games and Economic Behaviour" (Von Neumann 1944). This work has inspired a plethora of research topics in an equally diverse array of academic disciplines – e.g. evolutionary biology (Ridley 1996).

Although game theory came under increasing critical scrutiny in later years[2], this decade has seen a resurgence of interest in the topic. For example, the Federal Communications Commission used game theory to design a $7 billion auction of wireless personal communication (or mobile phone) rights throughout the US. Electricity providers in a number of countries (including US and UK) are using game theoretic principles to manage their supplier networks (e.g. power producers).

In addition to (or as a result of) commercial attention, academic interest in the subject is also undergoing a revival. The 1994 Nobel Prize for Economics was awarded to a trio of Game Theorists and Nalebuff and Dixit's book "Thinking Strategically" (Nalebuff 1994) put game theory on the front cover of Forbes!

So, what is game theory anyway? A game is a situation in which two (or more) parties, in attempting to fulfil their own aims, take decisions that affect others involved in the situation. For example, if the game is a union negotiation, the officials can either accept the terms on offer or continue the strike. "Games" are particularly challenging (or frustrating) situations as you do not have complete control over the situation – any plans you make can be thwarted by the actions of others. "Hell is", after all, "other people".

In game theory, a "game" is comprised of the following elements:

- **Players**. In keeping with the "game" metaphor, parties to the situation are termed "players". Players may be individuals (e.g. a CEO) or aggregate players (e.g. Scotland);

[2] Some of the reasons behind this criticism will be discussed later in the tutorial.

- **Strategies**. Each player has a set of "strategies", or sequences of actions that she can follow in pursuing her aims. In the "union" example, "accepting the terms" and "continuing the strike" are both strategies for the union officials;
- **Outcomes**. An outcome is the situation that arises from each player following a given strategy. If the union officials "continue the strike", while the management "strengthen their resolve", the outcome might be "escalation in industrial action";
- **Preferences**. Each player prefers some outcomes more than others. These preferences indicate the utility she places on each outcome. For example, the union officials prefer the "union demands are met" outcome to the "strike broken" outcome. The complete set of preferences for a player is often described as that player's "preference structure". Usually, this will consist of an ordinal ranking between the various outcomes.

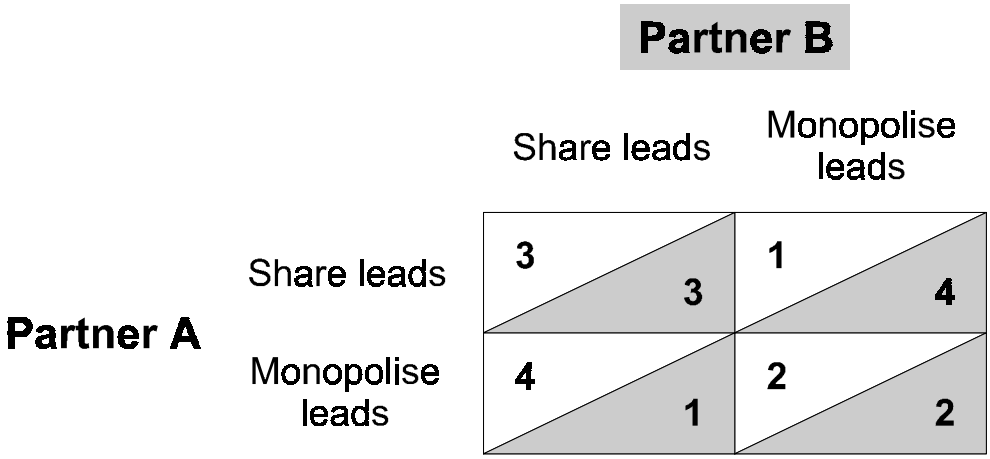

Figure 2: Game theory model

In an attempt to make some of these ideas concrete, let's move to an example from the commercial world. Figure 2 illustrates a game theory matrix – the classic method of representing a two player game. In this game, two companies are involved in a partnership where they will pool their resources to develop their customer base and share the business that is generated as a result of the combined marketing effort.

Each cell of the matrix represents a different outcome, and the numerals in the cells signify the order of preference placed on that outcome by each player – "4" being the "most preferred" while "1" is the "least preferred". Numerals in the white sections represent preferences for Partner A, while the grey sections include preferences for Partner B. For example, the upper left cell is the outcome "fair sharing of leads" (the basis of the partnership) which is the second most preferred outcome for both partners. Each company would prefer to monopolise its own leads while benefiting from the generosity of its partner.

The question now is "What strategy should a given partner follow?". At this point it is worth noting some of the assumptions made by game theory. One is that all players see the same game, and another is that the players are rational. Given these assumptions, each player searches for a strategy that will maximise her utility in response to the strategies that may be adopted by other players.

For the game illustrated in Figure 2, if Partner B shares its leads, Partner A would benefit from monopolising its own leads – taking Partner B for a sucker! Partner A prefers the "lower left" outcome to the "upper left" outcome. Similarly, if Partner B

monopolises its leads, Partner A should also monopolise its leads – why should it let itself be exploited? We now see that Partner A should monopolise its leads *regardless of the strategy adopted by Partner B*. This seems to be a very robust solution.

If we now turn our attention to Partner B, we see that the game is symmetrical – Partner B should monopolise its leads regardless of the strategy adopted by Partner A! So the conclusion is that both partners, acting in their own best interests, will monopolise their leads, leading to the "bottom right" outcome. However, both partners consider this outcome to be inferior to the one in which they co-operate and share leads – the reason they formed the partnership in the first place! A thorny dilemma[3].

Dilemmas created by the rational pursuit of self-interest are widespread. Arms races, of all kinds, are a common example. In fact, the type of dilemma represented by the problem in Figure 2 is so prevalent that it has been given its own name – the Prisoner's Dilemma[4]. We will revisit dilemmas later in our discussion.

Game theory in the dock

Despite (or perhaps because of) the considerable influence it has exerted, game theory has attracted its fair share of critics. Some of the charges laid against it include:

- The assumption of rationality. Is there no role for emotional irrationality in decisions that involve others?;
- The assumption of complete information. Players rarely have a complete understanding of all the issues influencing a situation. For example, it often pays to keep some information to yourself in a negotiation;
- Difficulties in extending the representation beyond two player games. The matrix representation, although powerful, becomes difficult to use in games involving more than two players;
- Impracticalities of enumerating all the possible strategies for a player. It is more realistic to gradually build up an understanding of the available options;
- Use of overly simplistic models. Game theoretic models abstract a lot of detail out of the problem. This detail may be instrumental in determining the outcome of the game;
- Reliance on fixed games. Players can change the game by, for example, forming coalitions with new players or generating new strategies.

In addition to these technical concerns, game theory has generated some political criticisms. For example:

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[3] The outcome where both partners monopolise their own leads is an equilibrium – it does not pay any partner to unilaterally change its strategy.

[4] This dilemma is termed the "Prisoner's Dilemma" as a result of the following anecdote. Two criminals are arrested for a serious crime, but the prosecutor does not have enough evidence to make a charge stick. She separates them and offers each the same deal. If one of them "squeals", that prisoner will go free while the other is prosecuted to the full extent of the law. If neither prisoner confesses the prosecutor will charge them for minor offences (in order to get some conviction). Finally, if both confess, they will be prosecuted for the serious crime, but their confessions will weigh in their favour. As in the partnership example, the "rational" strategy for each prisoner causes them both to confess, but a preferred outcome for both would be to "keep quiet and accept the minor charges".

- The relentless pursuit of self interest often associated with game theory is unacceptable in some quarters. Such a philosophy is incompatible with many social and religious theories;
- The terminology employed by game theorists is inflammatory. Describing sensitive political issues or commercial strategy problems as “games” with “players” may be seen as facetious.

Although counter-arguments can be made against all of these objections, they are numerous enough to have prompted alternatives to game theory.

Drama Theory

Drama Theory is a direct descendent of Metagame Analysis (Howard 1971). Metagame Analysis was developed by Nigel Howard in the 1960s for use in arms control studies. As there are many similarities between Drama Theory and Metagame Analysis, a discussion of both techniques would be superfluous for the purposes of this tutorial.

The term “Drama Theory” describes an entire decision support paradigm. Within this paradigm two techniques assist in delivering the theory to real world issues – Confrontation Analysis and Immersive Briefings. Both of these techniques focus on providing support to problem solvers. In this tutorial, we will focus on the Confrontation Analysis technique as this covers many of the theoretical issues required to understand the role of Immersive Briefings. A short discussion of Immersive Briefings, and their relationship to Confrontation Analysis, will be given towards the end of the tutorial.

Before beginning our journey into the technical workings of Drama Theory, let me take a brief detour into the terminology of Drama Theory and the processes involved in a drama theoretic analysis. Many of the concepts found in game theory have direct parallels in Drama Theory. However, the terminology has been changed as a result of a change in the basic metaphor and in reaction to some of the political concerns mentioned in the previous section.

Game theoretic “players” become drama theoretic “characters”, an “outcome” becomes a “scenario” and, you’ll be pleased to hear, “preferences” remain intact. “Strategies” are more problematic – they don’t explicitly exist in Drama Theory. Instead, they are replaced by combinations of “options”. This will become clearer when we begin our discussion of Confrontation Analysis.

Confrontation Analysis

Confrontation Analysis was originally conceived as a “quick and dirty” method of studying problems that could (if required) be tackled more formally using Metagame Analysis. However, it soon became apparent that Confrontation Analysis had much to offer as a comprehensive analysis method in its own right.

Confrontations

A confrontation is characterised by a set of “positions”, one for each character (“player” in old money), and a set of “fallback positions”, again, one for each character. In addition, there is a “projected future” which is nothing more than the

current situation being faced by the characters. Let's get right down to business and consider a concrete example.

In keeping with our dramatic theme, we turn to an oft-quoted example from the world of opera. Tosca, the heroine of Puccini's opera of the same name, is the lover of Cavaradossi. He has been condemned to death by Scarpia, the corrupt chief of police. Scarpia, however, offers Tosca a deal – he will order the firing squad to use blanks if Tosca agrees to spend the night with him.

Tosca, driven by her love for Cavaradossi, agrees to his request, but retains her virtue by stabbing him as he holds her in his arms. At the same time, Cavaradossi faces the firing squad. He falls to the ground – dead. Scarpia has deceived Tosca. On hearing of the death of her lover, Tosca throws herself off a cliff, plummeting to her death.

Cheery tale, but it provides a clear example of the basic concepts of Confrontation Analysis. In this confrontation, there are two *characters*. Cavaradossi, at least within the opera, is a passive "character" – he has no influence in the confrontation[5]. Tosca's *position* is that she wants a reprieve for Cavaradossi. Scarpia, on the other hand, holds the *position* that he would like to bed Tosca. It should be noted that these positions are not incompatible and lead to the scenario where Tosca sleeps with Scarpia, who, in reciprocation, reprieves Cavaradossi.

However, there is a temptation for each party to renege on the deal – Tosca would rather not sleep with Cavaradossi's gaoler and Scarpia would prefer to execute his rival for Tosca's affections. As a result, each character asserts a *fallback position* (or threat in this example). Scarpia will have Cavaradossi executed if Tosca refuses to sleep with him, while Tosca will reject him if he does not reprieve her lover. Unfortunately, in this case, the threat exerted by the fallback positions was not sufficient to secure the bargain. The scenario that results when all parties adopt their fallback positions is termed the "threatened future".

The one concept we have not covered is that of the "projected future". In this example, the "projected future" (or status quo) is identical to the threatened future – all the characters have already adopted their fallback positions. In general, the projected future and threatened future represent different states of the world.

Option tableaux

As discussed previously, the matrix representation commonly used in game theory modelling has a number of limitations. In recognition of these limitations, Drama Theory has adopted an alternative representation – the option tableau[6].

[5] In the real world, it is unlikely that Cavaradossi would have no influence on the confrontation. For example, he could presumably exert some emotional pressure on Tosca to accept or reject Scarpia's advances. Confrontational Analysis can easily incorporate these features, but, for the purposes of our discussion, we shall pursue the simplest case.

[6] This representation was originally introduced in the Metagame Analysis technique.

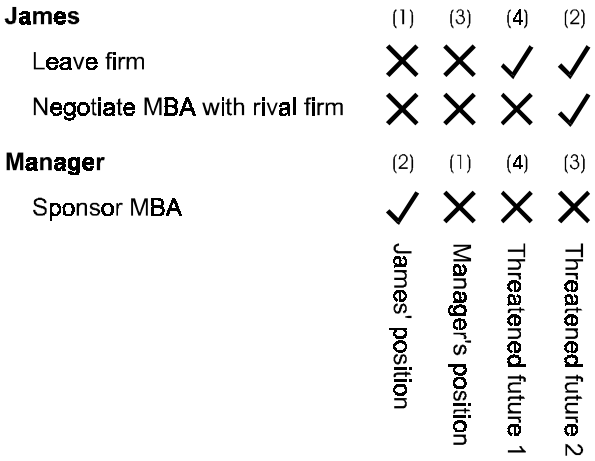

Figure 3: Option tableau

An ex-colleague recently asked his employer to sponsor an MBA. His "confrontation" is illustrated in Figure 3. James felt that an MBA was an important next step in his career and, when his request was declined, he threatened to leave the firm. However, he had been with the company for a number of years and his threat was perceived to lack sincerity. In fact, it did lack sincerity – he preferred the projected future ("Manager's position") to leaving the firm (characters' preferences are shown in parentheses, across from their names).

Initially, the Manager preferred his own position to that held by James – i.e. he would rather not pay for an MBA. After considering his situation, James started to approach alternative employers, inquiring whether they would be prepared to fund his MBA. On being offered such a package, James returned to his manager, explaining his change in circumstances. With this offer, James' threat to resign gained credibility (he now felt happier about moving). His manager relented and agreed to sponsor his degree.

Figure 3 shows both the characters in the confrontation (i.e. James and his manager) and their "options". Each character has a number of options open to him. A "tick" signifies that the character has adopted the option, while a "cross" denotes that she has declined to take the option[7]. For example, in "Threatened future 1", James leaves the firm without negotiating an MBA. A combination of options for a given character (and whether or not they have been adopted) defines that character's strategy.

It should be noted that, unlike game theoretic "strategies", options are not necessarily mutually exclusive - for example, in "Threatened future 2", James adopts both options. A scenario is defined by a set of strategies followed by the characters – i.e. a column in the tableau.

Option tableaux allow the representation of confrontations containing three, or more, characters – you just add them to the list. In addition, the process of defining strategies using individual options can ease the burden of determining the complete set of strategies open to a character.

Now that we have developed a model of a confrontation, we will now turn to some of the analytical elements of Confrontation Analysis, demonstrating how insights can be drawn from a rather simple representation. It should be apparent from the previous

[7] Drama Theory allows a third option category – a "blank". This signifies that the status of the option is unimportant in the current context. This complicates the discussion and will not be considered in this tutorial. For more details see (Rosenhead 1989).

discussion that a confrontation, as defined by Drama Theory, is a very natural concept. Characters have objectives, and have alternative actions that they may take if an attempt is made to thwart these objectives. This makes the Confrontation Analysis approach very attractive as a decision support tool.

Strategic maps

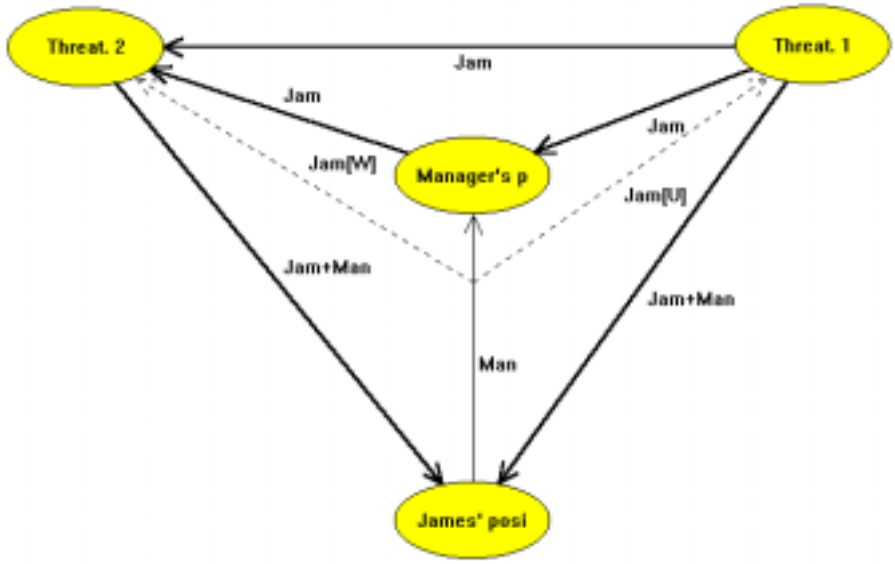

Figure 4: Strategic map of "MBA" confrontation

Strictly speaking, strategic maps are a method of presenting Metagame Analyses and, as a result, this discussion can be seen as a detour in our description of Drama Theory. However, it is my belief that these maps are a powerful means of presenting the structure of a conflict and an understanding of their representation scheme will aid our understanding of "pure" Drama Theory. In fact, there are points in a Confrontation Analysis where the use of strategic maps can generate insights to be exploited within the wider modelling effort. Such a discussion is, however, outside the scope of this tutorial.

Strategic maps are a powerful way of representing the dynamics of a confrontation. Figure 4 presents a strategic map developed from the "MBA" confrontation shown in Figure 3. To interpret a strategic map we must first define a few terms.

Improvements

An "improvement" is a scenario that is both preferred[8] by a character (or coalition of characters) to a given scenario and, in addition is reachable by that character (or coalition) from the given scenario. "Preference" is determined by the preference ordering placed on the scenarios (illustrated in Figure 3 by the numbers in parentheses).

"Reachability" is a little more complex. If Scenario A is reachable from Scenario B, by a character (or coalition), that character (or coalition) must be able to effect, without co-operation from a third party, a move from Scenario A to Scenario B – i.e. by changing the status of only the options she (or they) control. For example, in

[8] The "improvement" must be at least as attractive as the current scenario, assuming some of the scenarios have equivalent preferences.

Figure 3, James can reach both of the threatened futures from his manager's position, but he cannot reach his own position from this point – he would have to alter the status of the "Sponsor MBA" option, and this is controlled by his manager.

Although James can *reach* both the threatened futures from his manager's position, only "Threatened future 2" represents an improvement for him – he prefers his manager's position to "Threatened future 1". In the strategic map shown in Figure 4, improvements are represented as solid arrows (the difference between the thick and thin arrows is discussed below). So, from "Threatened future 1", James has improvements to "Threatened future 2" and the "Manager's position", while James and his manager, as a coalition, have an improvement to "James' position". The labels on the arrows define the characters for whom the transition is an improvement.

Sanctions

The next term to be defined is "sanction". A sanction is a reaction that characters not involved in an improvement can take against that improvement. First of all, a sanction must be reachable from the sanctioned improvement by a character (or coalition of characters) who was not involved in the improvement. In addition, the sanctioning scenario must be less preferable (to at least one of the improving characters) than the original scenario. Phew! Let's move to an example.

Returning to Figure 4, if James' manager agreed to sponsor an MBA, he would then have an incentive (and, therefore, an improvement) to renege on his agreement – leading to the "Manager's position" scenario. However, James, without co-operation from his manager, can move from this scenario to either of the threatened futures – both of which are less preferable to his manager than the initial, pre-improvement, scenario represented by James' position. Sanctions are shown as dotted arrows between the appropriate improvement transition and the sanctioning scenario.

In this example, James has a "willing sanction" (leading to "Threatened future 2") and an "unwilling sanction" (leading to "Threatened future 1"). Willingness to sanction an improvement is determined by whether the sanctioning character (or coalition) prefers the improvement to the sanction. In the case of "Threatened future 1", James would rather not implement the sanction as it leads to his least preferred outcome. Willing and unwilling sanctions are represented by a "[W]" or "[U]" after the sanctioning character's name.

Guaranteed improvements

We can now return to the difference between the thick and thin improvement arrows. Quite simply, a thick improvement arrow represents a "guaranteed improvement" – i.e. an improvement that is unconstrained by threats from sanctions.

Analysing the confrontation using Strategic Mapping

The strategic map is a powerful analysis tool. Right away we can see that James is in a strong position (after he developed the option of finding a new sponsor) and we can identify his negotiation strategy – communicate the attractiveness of his new offer to his manager. From the manager's perspective, things are bleaker. As currently defined, his position in the confrontation is weak. However, we can use the map to identify methods of strengthening his position.

For example, the manager's position is weak because he wants to retain James with the firm. If he were to change his preferences, so that he was happy for James to tender his resignation, he could strengthen his negotiating stance. In this case, James would be forced to confront his own preferences – his manager is likely to call any "bluff". "Threatened future 2" becomes the "obvious" outcome. How might the manager go about changing his preferences? One approach would be to identify a potential replacement for James, making him less concerned about the impact of losing a member of staff.

Another way of looking at the manager's problem is that his position is weak because James' new job offer is more attractive than his current post. His manager could change James' preferences. For example, he could promote James, potentially relegating the new offer to a demotion. Alternatively, he could make James aware of the "inadequacies" of his new employer. Whatever strategy the manager adopts, the strategic map can be used to focus his attention on those that have a chance of success.

Although we could spend more time on the use of strategic maps in Confrontation Analysis, we will move onto the role of dilemmas. The analysis of dilemmas complements the insights obtained from Strategic Mapping.

Dilemmas

We have already come across a dilemma in our discussion of game theory – the Prisoner's Dilemma. Drama Theory has its own set of dilemmas. In fact, the mathematical framework that underlies Drama Theory demonstrates that there are six (and only six) dilemmas that can confront a character (Howard 1994). When no dilemmas are present in a confrontation, for any character, there is no longer a confrontation. Confrontation Analysis works towards a resolution of confrontations by attempting to resolve these dilemmas. So, what are the dilemmas?

The dilemmas of Drama Theory arise from the structure of the confrontation – i.e. the positions and fallback positions adopted by the characters. Dilemmas are formal properties of the confrontation and can be determined from the option tableau. For each dilemma, there are suggested approaches to resolving the dilemma. The following sections will introduce each dilemma, define its structure and describe some potential strategies for its resolution.

Co-operation dilemma

A co-operation dilemma occurs when characters cannot be trusted to co-operate in implementing their positions.

Definition: A character has an incentive to defect from her position.

Example: In our operatic example, Scarpia has a co-operation dilemma. He would prefer to execute Cavaradossi, even if Tosca sleeps with him. How can Tosca be sure that Cavaradossi's life will be spared?

Potential resolution strategy: A character facing a co-operation dilemma could change her preference structure so that she really does prefer her position over any other outcome. She would then have to convince the other characters that her preference change was sincere.

Deterrence dilemma

A deterrence dilemma occurs when a character's fallback position is not sufficiently unpalatable to deter other characters. As a result, she is unable to leverage her position.

Definition: Another character prefers the threatened future (or a scenario reachable from it) to the character's position.

Example: In the MBA example illustrated by Figure 3, if James was a useless employee, his threat to resign would provide him with a deterrence dilemma – his manager would rather lose him (the threatened future) than pay for his MBA (James' position).

Potential resolution strategy: A character facing a deterrence dilemma has to strengthen her fallback position – e.g. by choosing a new fallback position, or by convincing the other characters that they are underestimating the "pain" of the threatened future.

Inducement dilemma

An inducement dilemma occurs when the threatened future is unpalatable enough to induce the character into accepting another's position. How can the character maintain that his fallback position is credible under these circumstances?

Definition: A character prefers the position of another character to the fallback position.

Example: In our MBA example (see Figure 3), the manager faces an inducement dilemma as he prefers James' position (to sponsor an MBA) over both threatened futures. If we ignore "Threatened future 2", James also has an inducement dilemma, as he would rather not resign from his current job.

Potential resolution strategy: A character facing an inducement dilemma can either increase his distaste for the positions held by other characters or warm to the threatened future. Characters often "demonise" the other parties to make their positions unacceptable – e.g. "I'd rather kill myself than give in to you!".

Positioning dilemma

This is a somewhat problematic dilemma. A positioning dilemma occurs when a character adopts a position that it considers to be inferior to another position. It could be argued that the position held by the character is actually preferred to the other position, but for complex and subtle reasons.

Definition: A character prefers another position to her own.

Example: Children are constantly told not to accept sweets from strangers. When confronted with such an offer, a child would, I presume, prefer to accept the gift (the stranger's position). However, the child adopts another position (her own position) of declining the offer and relocating to a public area. The problem with this dilemma is that it is possible to argue that the child's priority is actually to obey its parents and, therefore, her preference is to decline the offer[9]. Regardless of these semantic

[9] Northern Ireland provides another example – with a "less problematic" positioning dilemma. Before the latest cease-fire, Britain preferred the Unionist position (i.e. peace talks after both a cease-fire and IRA disarmament) to its own (the same as the IRA/Sinn Fein position, i.e. peace talks after a mere

concerns, the presence of a positioning dilemma forces us to re-evaluate our preference structures.

Potential resolution strategy: A character facing a positioning dilemma should reconsider its values, possibly leading to a redefinition of its preference structure.

Threat dilemma

A threat dilemma occurs when a character has an incentive to abandon its fallback position (or threat).

Definition: A character prefers an alternative, reachable future to the threatened future. This differs from the inducement dilemma in that the preferred alternative future is not a character's position.

Example: A threat dilemma occurs in the nuclear mutually assured destruction scenario. If a nation is attacked with conventional weapons, it can threaten to defend itself with nuclear weapons. However, if the aggressor also has a nuclear capability, both nations would be destroyed. It is likely that the nation under attack would prefer to defend itself with conventional weapons, thus undermining its fallback position.

Potential resolution strategy: A character may attempt to make credible her resolution to adopt the fallback position. For example, in the example given above, the defending nation could argue that its conventional capability is too weak to be an effective defence, so both the conventional and nuclear fallback positions lead to similar outcomes (from the perspective of that nation). Given that, the people of that nation would rather take their attackers down with them!

Trust dilemma

A trust dilemma occurs when another character has an incentive to deviate from a given character's position (i.e. to abuse the trust that character would like to place in her).

Definition: Another character prefers an alternative, reachable future to a given character's position.

Example: James has a trust dilemma in Figure 3, since his position ("I'll stay if you'll fund an MBA") requires him to trust the manager. The manager might agree, then, at a later date, begin to find excuses for refusing to fund the MBA.

Potential resolution strategies: A character has to convince others to be ready to adhere to its position - if they accept the position. This could be achieved by inducing others to feel goodwill towards it (e.g. winning the manager's goodwill by showing gratitude for the opportunity to undertake an MBA) or legal contracts (e.g. "If I agree to work for the firm for another three years, you undertake to sponsor my MBA").

Strategies for resolving dilemmas

We have seen a number of "potential resolution strategies" for given dilemmas. In general, methods of resolving dilemmas include:

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cease-fire). The reason it took a position it did not prefer is that it rightly regarded the position it preferred as unrealistic.

- **Demonstrations of emotion**. Dilemmas often generate strong emotions from the characters who are experiencing them. For example, a character experiencing an inducement dilemma will tend to generate negative emotion as she attempts to reconcile a threat she would rather not carry out, with the pressure placed upon her to accept a position that does not meet her objectives. As the "potential resolution strategies" have illustrated, emotional energy is a feature of (and strategic tool in) most confrontations.;
- **Genuine preference change**. Over the course of a confrontation, a character may simply change her mind (or preferences). This is likely to be met with some distrust from the other characters in the confrontation.
- **Displays of irrationality**. Irrational behaviour makes it credible that a character may act in contradiction to her own preferences – e.g. "She's mad! Nothing would surprise me!".
- **Rational argument in the common interest**. Explaining why a particular course of action benefits all parties is a powerful resolution method. For example, in the joint venture game described in Figure 2, if the benefits of co-operation are explicitly defined, and the penalties for cheating (and their consequences) noted, this may be enough to ensure co-operation.
- **Changing the confrontation**. Characters may generate new options or scenarios (or even new characters). For example, in our operatic confrontation, Tosca might ask for written confirmation that Cavaradossi's life will be spared before submitting to Scarpia's demands. This removes the need for her to rely on his "word of honour".
- **Deceit**. There is also the possibility that another character may attempt to deceive the others (e.g. concerning her preferences).

We have now encountered the major building blocks of Confrontation Analysis - the Options Tableau and the six dilemmas. Our examples have demonstrated how Confrontation Analysis can be used to understand and (via the use of strategic maps and dilemmas) assist in resolving a confrontation. The next section will draw some of these threads together and illustrate how they are applied in a consultancy intervention.

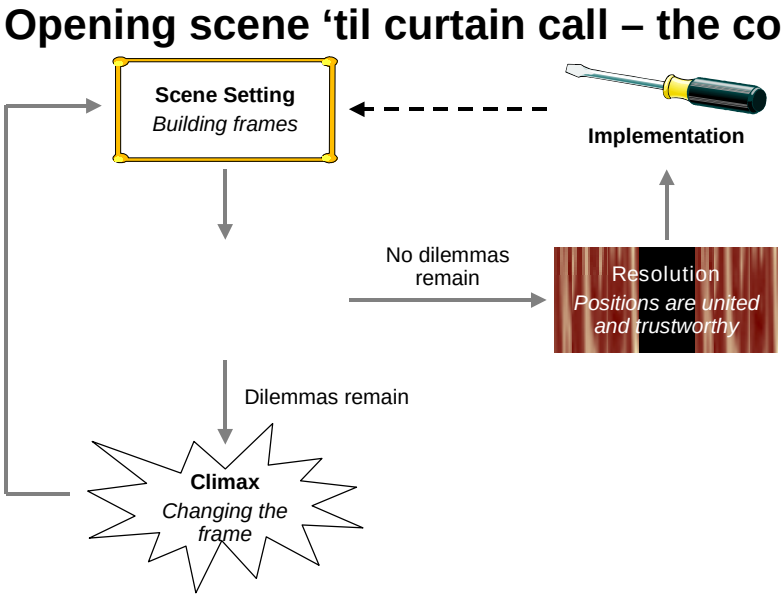


Figure 5: Stages in the resolution of a drama

Figure 5 illustrates the stages in a "typical" Confrontation Analysis intervention. This section will begin be describing the various stages of the process, followed by a simple "case study" illustrating the application of the complete process.

Scene setting

A Confrontation Analysis begins with a period of "scene setting". In the scene setting stage, parties to the drama, through discussion, define the boundaries of the problem – e.g. the characters who may participate, the actions they might feasibly take, potential outcomes arising during the drama. During this discussion, each party is influencing and modifying the views held by other parties. This phase of the analysis is critical as it begins to form the background against which the drama develops. At the end of this phase, each party should have an understanding of the perspectives held by the other parties, and a view of the extent of the problem.

Build-up

The "build-up" stage focuses on developing a common frame of reference. The need to resolve problems forces parties to abandon their own proprietary views and consider the perspectives adopted by others. Without a common frame of reference, parties to the drama cannot begin to negotiate. In the context of Confrontation Analysis, we can consider the frame of reference to be an option tableau. This allows us to be more explicit about the requirement of the scene setting stage – the parties need to agree (at least as a starting point) on the characters in the confrontation and the options open to each character.

On agreeing the frame of reference, positions and fallback positions can be expressed for each of the characters in the frame[10]. In general, this leads to a number of dilemmas – issues and concerns that precluded the successful resolution of the

[10] In practice, the characters, their options and their positions are often defined simultaneously. For example, a consideration of likely outcomes in a drama will often lead to the identification of appropriate characters. However, for the purposes of discussion, it is convenient to consider the characters in a drama before addressing the options and positions "owned" by those characters.

conflict. If no dilemmas exist, the build-up leads directly to the "resolution" stage (see below).

Climax

Where dilemmas remain in a confrontation, characters face "a moment of truth" and are under pressure to change the conflict in an attempt to resolve their dilemmas. In general, there will be two situations arising from the build-up:

- an agreed position has been reached, but the characters cannot trust one another to keep their side of the bargain;
- no agreement can be reached.

In the former case, the characters will need to develop a more trustworthy position. This may be achieved using some of the dilemma resolution strategies discussed earlier in the tutorial.

When a common position cannot be agreed, the characters in the conflict must attempt to coerce one another into a common position. This is achieved using the threats implied by the fallback positions of the characters. Again, the various dilemma resolution strategies can assist in bolstering the effectiveness of these fallback positions.

The climax will result in a further round of scene setting, where the parties to the drama explore the issues raised by the new changes.

Resolution

When all the dilemmas have been purged, then we have reached the resolution of the drama. This, however, is not the end of the story. The agreements must be put into practice – via the implementation phase.

Implementation

In the implementation phase, the outcome of the drama is "played out". However, projects rarely turn out as planned, and a new set of issues rise to the surface. This results in a new drama, creating the endless series of negotiations and agreements that comprise our daily lives.

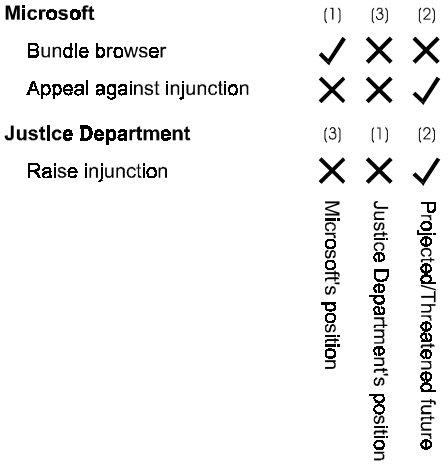
Case Study – Microsoft versus the Justice Department[11]

Microsoft were recently in trouble with the US Justice Department. They stood accused of infringing monopoly laws by bundling their Internet browser, Internet Explorer, with other packages. This is alleged to prevent competition from other Internet browser developers. As a result, the Justice Department placed an injunction on Microsoft preventing it from bundling its browser with other software products. In response, Microsoft appealed against the injunction.

Presumably, Microsoft and the Justice Department engaged in some sort of scene setting activity, before reaching their confrontation. This would have included:

[11]This analysis is based on an article in Business Week, 29th December 1997-5th January 1998 entitled "Let it go, Mr Gates. You'll win anyway".

reviewing the monopoly laws; considering the role of other browser developers; considering the reaction of the US (and international) community to any actions taken; considering the alternatives open to both parties; considering the value systems of both parties.



Dilemma	Microsoft	Justice Department
Co-operation		
Deterrence	✓	✓
Inducement		
Positioning		
Threat		
Trust	✓	✓

Figure 6: Initial confrontation between Microsoft and Justice Department

At this point they began to negotiate – i.e. moved into the build-up phase. The frame resulting from this initial negotiation is shown in Figure 6. Also shown are the dilemmas facing each of the characters. Microsoft's position is that it wants to bundle its browser with its other software packages. However, the Justice Department considers this to be an infringement of monopoly laws and wants Microsoft to discontinue bundling its browser. In an attempt to get Microsoft to adopt their position, they placed an injunction on Microsoft, forcing the company to comply with the position. In response, Microsoft appealed against the decision.

As a result, the threatened future was adopted – neither party achieved its position. The threatened future was particularly bad for Microsoft – they were locked in legal battles, unable to bundle their Internet browser. Figure 6 also shows the dilemmas faced by each character. Both characters faced a trust dilemma due to their different positions. More importantly, each of the characters also faced a deterrence dilemma – each found the current situation (and threatened future) more palatable than the other character's position. As negotiation levers, the characters' fallback positions were weak.

As a result of their deterrence dilemmas, each of the characters started to voice their grievances via the press, attempting to muster public opinion against the other character's actions – thus making the fallback position unattractive to that character.

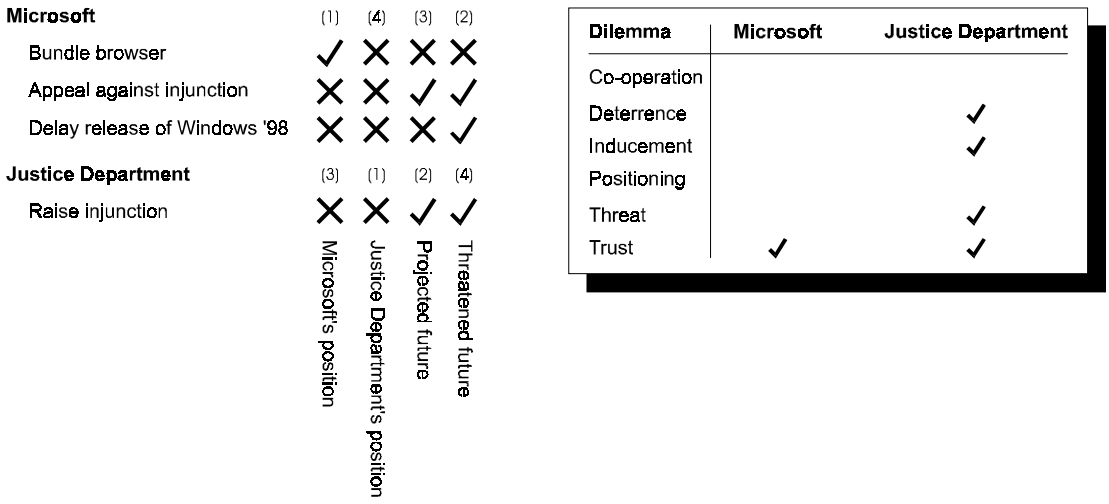


Figure 7: New frame generated as a result of delaying Windows '98 launch

Microsoft, facing an unacceptable dilemma, changed the frame – they created a new fallback position. Windows is due for a new release in ’98 and Microsoft argued that, as an integral part of any modern operating system, they would have to include an Internet browser as part of the package. Any injunction preventing Microsoft from doing so would inevitably delay the release of Windows ’98. Microsoft had redefined the threatened future to include delaying Windows ’98 – adding that this was an inescapable consequence of the injunction. Figure 7 illustrates the new confrontation.

If this had been any company except Microsoft, the threat of a delayed product launch would have been unlikely to change the situation. However, the timing of Microsoft’s major software releases drives the entire personal computer industry. New operating systems fuel the market for software upgrades and these “processor hungry” packages force users to upgrade their equipment on a regular basis.. Delaying the Windows ’98 launch would have a significant impact on software and hardware manufacturers across the globe.

And this is where the Microsoft/Justice department confrontation remains at present. However, for the purposes of the tutorial, I will move it on. As a delay on Microsoft launches is likely to generate economic pressures on the computer industry (a powerful industry community in the US), the US Government is likely to start pressing for a resolution. This, in turn, will place pressure on the Justice Department (as part of the government) to resolve the situation. At the same time, the Justice Department is facing deterrence, inducement, threat and trust dilemmas – all of which could be resolved by adopting Microsoft’s position and using the wider interests of the US economy as a rational argument (engendering credibility in the Justice Department’s commitment to maintain that position).

At this point, no dilemmas would remain and we would move to a positive (i.e. co-operative) resolution phase. The implementation would allow Microsoft to go ahead and bundle their browser with Windows ’98. No doubt, this release will cause new debates about Microsoft’s dominant influence in the industry – leading regulators to take a fresh look at Microsoft’s operating practices (i.e. a new drama).

I doubt that this will be the resolution to the actual situation, but it (hopefully) demonstrates how the Confrontation Analysis approach might be applied to a “real” problem. A limitation of this “taken from the literature” type of case study is that it is susceptible to considerable misinterpretation by the analyst. Ideally, a Confrontation

Analysis should be conducted in conjunction with one (or more) of the parties to the confrontation. This reduces the chances of the analyst reading details into the problem that do not exist!

Immersive Briefings

Immersive Briefings employ the Drama Theory perspective to structure problems involving conflicting parties. This structure is used to prepare a briefing around the confrontations and characters present in the drama. For the confrontations, the following information is recorded:

- characters involved in the confrontation;
- an overview of the problem;
- the positions held by the characters in the confrontation (including fallback positions);
- their strategies;
- an option tableau representing the confrontation.

For each actor, the following information is recorded:

- a description of that character's background (e.g. biography);
- a summary of the character's values;
- a list (and description) of projects currently being undertaken by that character (i.e. what is the character trying to achieve?).

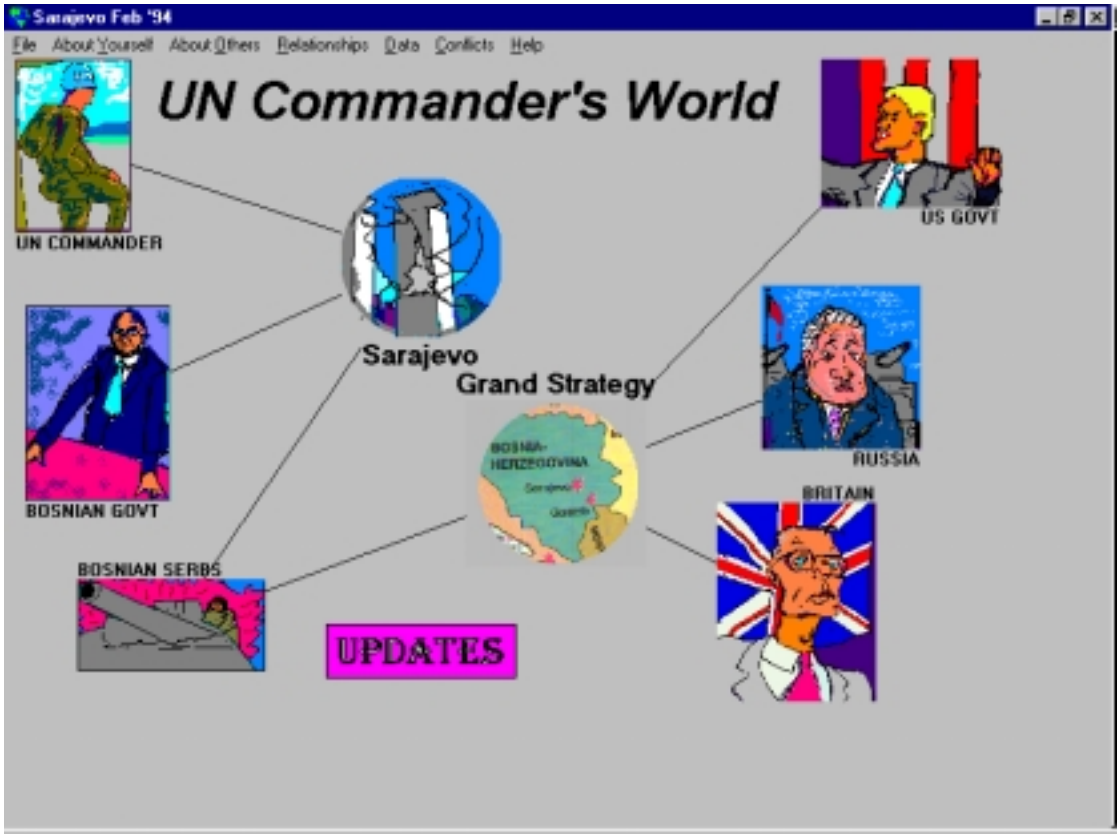


Figure 8: Multimedia immersive briefing[12]

This information is generally presented as a multimedia database (see Figure 8). At this stage, the briefing is often used as part of a role playing exercise. Each role player is given an immersive briefing for her character. She then proceeds to negotiate with the other characters in the role playing exercise, attempting to complete her projects. The role playing exercise may involve the use of Confrontation Analysis to assist the characters in their negotiations. As the roles are played out, the frames of the drama change leading to new confrontations. The immersive briefings can be updated to reflect these changes, and the exercise continues.

One of the major benefits of combining Confrontation Analysis with an immersive briefing is that the briefing acts as a rich audit trail of the analysis process. In addition, it helps those involved in the analysis to focus on the goals and objectives of a character – potentially leading to more accurate modelling.

Software tools

For those wishing to use Drama Theory in their own studies, there are a number of software packages that can ease some of the modelling burden.

CONAN[13] (published by Nigel Howard Systems) is a DOS-based Metagame Analysis tool that questions users about their preferences to build up a model of a confrontation. Users have the option of either building up a detailed model of the

[12] This immersive briefing, concerning the Bosnian conflict, was developed by Nigel Howard, under contract to the Defence Evaluation and Research Agency.
[13] Available from: Nigel Howard Systems, 10 Bloomfield Road, Moseley, Birmingham B13 9BY.

problem, without opting to conduct formal analysis, or studying the improvements and sanctions present in a situation.

Interact for Windows[14] is another PC-based Metagame Analysis tool. Its focus is on acting as a decision support tool that can be used directly with clients. Strategic maps can be generated automatically from the option tableau. Interact for Windows was developed at the University of Strathclyde's Department of Management Science.

CONAN and Interact for Windows are both Metagame Analysis tools. They do not provide facilities to automatically identify dilemmas. STUDIO[15], currently under development at Sheffield Hallam University, will be a fully Drama Theory compliant tool.

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[15] STUDIO is under development at the time of writing.