

# **Rational Actors in Old Buddhist Chronicles**

## **The Dutthagamani-Ellalan Event<sup>1</sup>**

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Modern sociologists find their theories on human interaction constrained by two important forces. One of these forces emerges from structure: that is, humans engage in some form of calculated, ritual, habitual or recursive interaction because structures in which they are embedded provide few alternatives. Second, these actors are able to imbue their interactions with meaning that is obtained from their own biography or social context. Because there is this two-sidedness to the activity of humans as agents, that is structure and biography, one must assume that social structures have a certain rationality (perhaps agents acting rationally in roles), since interaction would not be repeated if such conscious understanding is not understood in some mediated form. Such structuration is also true of ethnic animosity.

Often ethnic animosity is characterized as emerging from irrational impulses. Social scientists, however, find that it is important to consider such animosity in a different way. If one assumes that 'ethnic loyalty', 'ethnic ideology', or 'ethnic interaction patterns' arise out of irrational sources then one cannot explain these in theoretical language since such language is both abstract in its statements and linear in its logic, (even when using curvilinear models). This assumption leads to the eventual conclusion that ethnic animosity must be treated as a residual element.

This discussion takes a different view, that ethnic loyalties and animosities can be considered to be rational. This would mean that they could be treated as conceptual building blocks in a theory at the individual or the collective level; in this case, collective. Because I consider the conflict between Dutthagaamani and Ellaalan, as recorded in the monastic chronicles, to have rational bases, I treat the conflict as a form of strategic interaction. Just as some have been able to treat interactions among biblical characters as acting rationally (Brams 1980) one can treat these historical humans of early Sri Lankan history as having rational thought, capable of calculation, strategy and goal achievement. The Buddhist chronicles sometimes portray the characters, especially Dutthagamani as being emotionally disruptive and therefore not amenable to moral persuasion. Part of the motivation here seems to be to suggest that Dutthagamani was in fact more than human, perhaps a god reborn and therefore beyond human conceptualization.

It is not possible, however, for a social scientist to grant this. Even a god born as human must be able to think in human terms if historical actions are to bear the fruit of ethnic identification, loyalty and conflict against other ethnic groups, as in the Dutthagamani narrative summarized below. This is partly because other members of the group are human, other ethnic groups one attacks are also human and subject to strategic thinking in making war, and thus loyalty and animosity are both two sides of the same coin minted in human thought. It is not only appropriate but also possible to consider the conflict between Dutthagaamani and Ellaalan as a form of strategic interaction. Such interaction can be modeled in simple and straightforward game theoretic form.

### ***The Legend***

The battle between Dutthagamani and Ellalan is well known to those who have studied Sri Lankan history. It is significant because Dutthagamani has been used as an archetypal hero in the modern political arena, and the conflict has been metaphorically invoked to represent Sinhala-Tamil relations in the modern period (Vijayavardhana 1953; Wriggins1960; Dhammavihari 2000). The legend may be thought to constitute an ethnic *mythomoteur* in Sinhala culture.

Ellalan was a Tamil monarch who ruled the central part of ancient Sri Lanka called Rajarata. In the Sinhala monastic chronicle - the *Mahavamsa* - he is described as a just king, who was fair to his officials and to his subjects (Guruge 1989). Dutthagamani was a prince in the lesser kingdom of Rohana (Ruhunu) located south of Rajarata.

From his childhood Dutthagamani was troubled by the dominance of the Tamils, and on occasion quarreled with his father, Tissa, the king of Rohana, for the latter's passive acceptance of the *status quo*. According to the chronicles, at one point he quarrels with his father and curls up in his bed saying that with the Tamils to the north and the ocean to the south there is no room for him to stretch himself.<sup>2</sup> At another point he insults his father for his acquiescence to/with Ellalan's hegemony by sending him a gift of women's ornaments.<sup>3</sup>

After his father's death Dutthagamani sees an opportunity to attack the Rajarata kingdom and topple the aging Tamil warrior from his throne. Refusing to accept obstacles to this goal and supported by the religious elites he marches against the Tamils.<sup>4</sup> With strategic brilliance he overcomes many odds

to finally meet Ellalan on the battlefield.<sup>5</sup> In face-to-face combat on war elephants,<sup>6</sup> he emerges victorious and unites the whole island under the Buddhist throne or, as the chronicles describe it, 'brings Lanka under one parasol'. The Buddhist *Sangha* (i.e. church) is given pride of place in his reign and this organization in turn extols the actions of Dutthagamani, and even explains to him why he need not feel guilty of taking the lives of unbelievers when he was acting in the interests of Buddhism.

The Sinhala *vamsa* chronicles and other literary sources of different historical periods between the fourth century and the twenty first century of the current era repeat this narrative. One motive in these monastic interpretations is to provide a model for the medieval monarchs and the present political leaders of Sri Lanka. One might question how Buddhism a religion so doctrinally emphatic about non-violence could raise a violent Dutthagamani to the status of a role model.

In this context it is important to remember that the goal of monastic scribes was not simply to report historical events but to present the meaning of kingly actions in the light of religious interpretations. The primary motive was to protect the sources of Buddhist religion in the country -- that is, the doctrine, the monastic community, the relics, the lay believers, and the material bases of these groups -- from rival powers such as the South Indian Tamils who were geographical neighbors and religious rivals. As Gordon Allport (1954) theorized about prejudice, it is easy to understand why the chronicles written at times of threat are more invidious in their comments on the Tamil "other" in their description of the Dutthagamani episode, than those written at times when the threat was less intense. At times of high enmity they were fundamentally prejudiced discriminators.

Considering this material in the chronicles in a different way, as I do here, one can take account of the *strategic options* available to Dutthagamani and Ellalan in the context of the animosity that prevailed at that time. The essence of these options is invariant in the various descriptions of the event in different chronicles that follow the original. Further, embellishments of this legend, the motivation to treat the *Sangha* as a supporter of Dutthagamani, and to describe the Sinhalese and Tamils as essentialized antagonists constitute a constant theme in the later records as well. By considering these options one can bring in a game-theoretic view of the encounter.

## ***Parallel Analyses: Motives in a Text***

### ***History with a Motive***

By studying various texts and comparing them in relation to the context in which they were written many scholars of religion, philology and history of religions interpret not the rational event but the rationality of the writing itself. By considering a number of reports, in addition to the Dutthagamani-Ellalan episode, a scholar can get a good sense of both the motives of the scribes and the manner in which the motives infuse the contemporary interpretation of the political events by the scribes, events such as the succession struggles, conduct of rule, ethnic encounters, and other monarchical actions. In the case of the chroniclers of Sinhala history, there was an underlying motive to create a sense of cohesion among the Buddhists in the island and to link this sensibility to the political center. In the opinion of some scholars these early writings can be interpreted as being nationalist.

In these scribal descriptions the writer, or oral reciter, has usually embellished and accentuated some details and underplayed or even ignored other details of an actual event. Further, the embellished and accentuated account began to function as a source for another re-telling of the tale, as in campaign speeches of current political candidates, or the writings of Sinhala-Buddhist ideologues. In this way the notion of nation is developed through narration.

### ***The Historical Actor***

But the content of the text is not pure fantasy or floating rhetoric in the Buddhist monastic chronicles. It has to be assumed that the text is historically rooted in certain events. One may, through critical understanding of the texts and contexts, unravel some or much of the packaging of the tale. For example, one may search for and find corroborating evidence in epigraphic sources or other Buddhist texts in Sri Lanka or other Asian countries. But even if one comes, through such undressing, to the conclusion that the emperor is naked, that is that most of the story is scribal hot air, one has to face the "fact" that there was an emperor. In the game-theoretic interpretation here, we have to assume that there was indeed an emperor, in fact two contending ones.

### ***The Rationality of the Actors***

The strategies developed for the game-theoretic rendering arise out of this kind of "sympathetic understanding" of the text, context, and content in the chronicles. The game theorist considers a different kind of rationality from that considered by the literary student of the texts. The latter is concerned with the rationality of the writer(s) of the chronicles while the game-theorist is interested in the rationality of the characters and their actions as reported by the writer(s) because the writers have to assume that the characters were acting rationally in the event. The importance of the tale for the modern individual directly or indirectly engaged in the ethnic conflict, in its violence and in other ways, is in fact contingent on this perception of the authenticity of the actors.

For example, consider the following issue. After a victory in the conflict with his brother also named Tissa, Dutthagamani goes to the *Sangha* (apparently with a Buddhist relic in his royal standard and tells this ecclesiastical body that he plans to cross the river and spread the faith in Rajarata. "Give us bhikkhus who will go with us, for the sight of bhikkhus will be a blessing, as well as a protection for us". According to the chronicles, Dutthagamani marches into the battlefield with members of the Buddhist clergy. Now this is fundamentally contradictory to the teachings of the Buddha. First, he is said to commit what amounts to a sacrilegious act by putting a sacred Buddhist relic in his royal standard while taking it to war. While the chronicles report it they fail to admonish him through the editorial voice or that of any characters. Second, the *Sangha* gives him five hundred recluses (perhaps initiates) who accompany him as an act of penance for their poor peacemaking in the previous war between the two brothers (*Mahavamsa* 1989: 895, note 5). Students of Asian religions and other scholars have been interested in discussing the motives of the chroniclers with regard to this. Their question is 'Why does the *Sangha* contravene its own rules and support these actions?' For the literary critic the answer emerges in terms of the engagement between chronicler and his envisaged audience. For the modern nationalist such a question is less relevant than the support that Dutthagamani received from the *Sangha* and his subsequent heroic acts. For the game-theorist the answer comes from a different vantage.

By taking account of the strategies of the characters and then placing them in terms of preferences in an interactive context the game-theorist attempts to explain the strategic interaction involved. It is clear that Dutthagamani would like to legitimize his war-effort in religious terms. He could

not therefore ignore the *Sangha*; and he would certainly welcome its support. But the *Sangha* does not have to support Dutthagamani, and there are a few reasons why it would not be rational to do so. First, it does not know that he is going to win the battle. Second, knowing his attitude towards those in authority he may turn on the *Sangha* even if he wins. If its sole concern is influence over righteous rulers, it might be better to support the brother Tissa than Dutthagamani, because the former was more malleable. Third, given its own doctrines the *Sangha* should turn away from issues with regard to violence. It is likely that the *Sangha* was itself divided on this issue of supporting even righteous violence. Fourth, if Dutthagamani lost then Ellalan would look on Buddhist monks and the *Sangha* with disfavor, that is, things could get worse for the *Sangha*. These issues are not considered explicitly in the chronicle, but one can suggest that there is good reason why the *Sangha* acting rationally would debate the issue of supporting Dutthagamani in his war making. In such a debate, these questions would surely be raised.

Given the intrusion of this question in the exchange between Dutthagamani and the *Sangha*, the strategic rationality of both Dutthagamani and the *Sangha* can provide an answer if we take on a game-theoretic perspective. Let us therefore turn to a game.

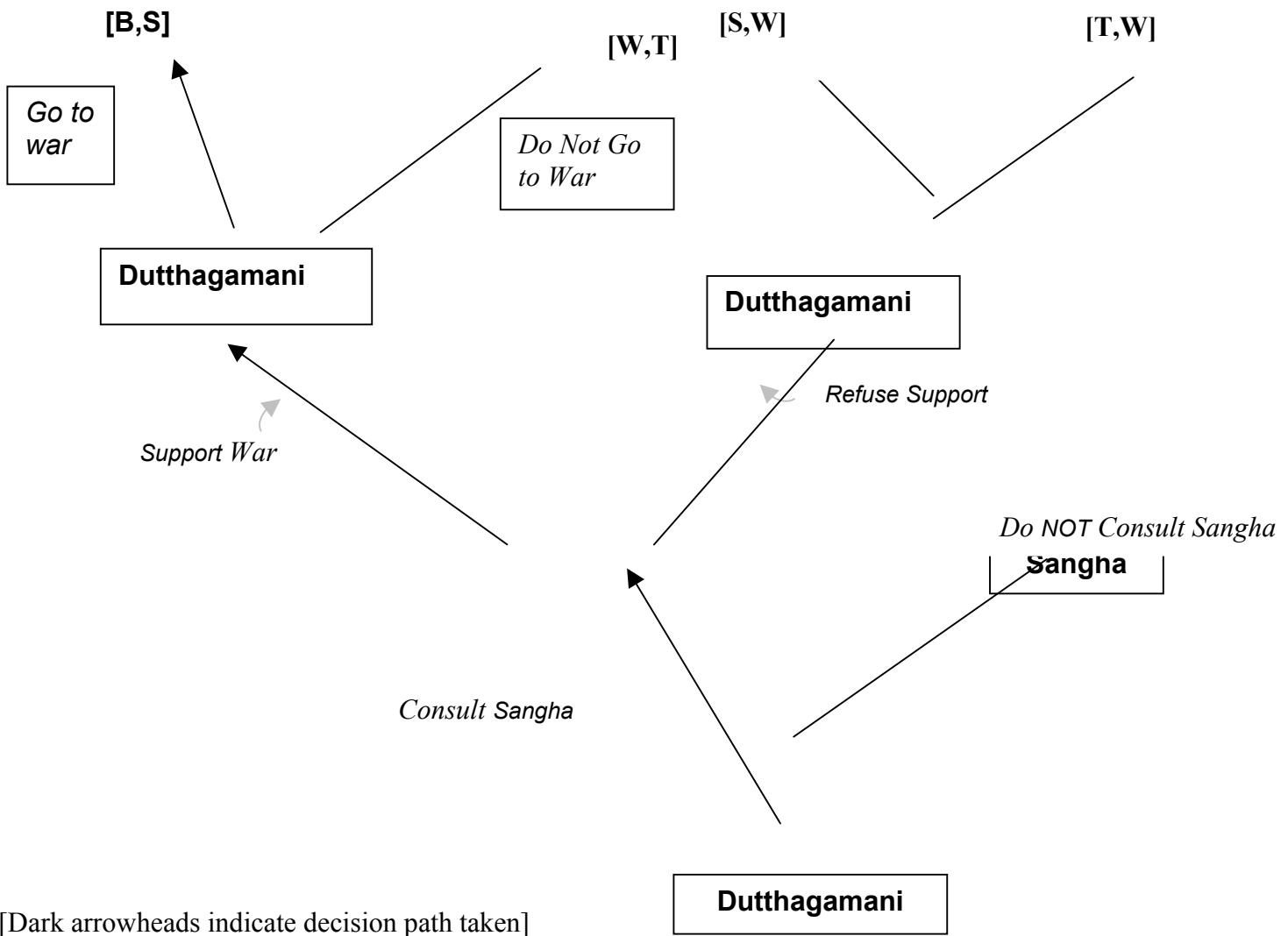
### **The Dutthagamani-Sangha Game**

Dutthagamani's options in this encounter with the *Sangha* are (a) to attack Rajarata or (b) to stay in Rohana. Considering his interests Dutthagamani, has a dominant strategy of attacking Rajarata. But he would like this effort to be legitimated by the Buddhist *Sangha*. If the argument above is followed, the *Sangha* has two options, that of (a) opposing violence under any circumstance, or (b) supporting righteous violence. ( because one can assume that it will categorically refuse to support violence that is not considered righteous). Let us call these two strategic options "oppose and "support".

Each of these actors, Dutthagamani and the *Sangha*, has to consider the *options of the other actor*. In doing so, each would weigh the outcomes for themselves that result from the interactions of those options. As Elster argues, the reward of each depends on the choice of all. Dutthagamani has to consider the possibility that if he went to war he may not get the support of the *Sangha* and would have to fight a war unapproved by influential political legitimators. This could prove costly. On the other hand, the *Sangha* may support his attack on Rajarata. In contrast, he has to consider his losses or gains if he

does not go to war after saying that he plans to do so. If the *Sangha* had opposed war he would be seen as a truly obedient believer, but if it had supported righteous violence, he would appear to be quite cowardly. Similar deliberations can be deduced for the *Sangha*. The rational thinking behind the encounter between Dutthagamani and the *Sangha* can be described in the form of a decision-tree. The tree depicts the thinking in sequential form, assuming the prince acts first.

**Figure 1: Decision Pattern for Dutthagamani and Sangha**



Let us label these four outcomes for each actor using B as the best outcome and W as the worst. The outcomes that are between B and W are labeled S for second and T for third. Such labels are purely ordinal. Thus each player has four outcomes: B, S, T, W, in order of preference from left to right.

The best outcome for Dutthagamani would be when he could choose to obey the *Sangha* and the latter also supports his attack on Rajarata. Because he is committed to war his second best choice is to disobey the *Sangha* if they oppose his dedication to go to war. He may sense that with time he could persuade the *Sangha* to support the cause provided he first gained political victories in the battlefield. Victory in battle would also enable him to make grants and donations to the well being of the *Sangha*, and offending them now through disobedience may be resolved later through such kingly activities of gifts. Dutthagamani's worst outcome would be if he disobeyed the *Sangha* when it supported righteous violence. That is, if for some reason he changed his interest in conducting a war after persuading the *Sangha* that he was committed to it. In doing this he would surely threaten his standing as ruler and as warrior. The second-worst preference would be if he obeyed the *Sangha* against his own strong feelings and decided not go to war. These preferences can also be labeled as follows:

**Dutthagamani's Preferences:**

Dutthagamani is supported by the *Sangha* and goes to war (B)  
Dutthagamani defies the *Sangha's* opposition to war (S)  
Dutthagamani obeys *Sangha* and decides not go to war (T)  
Dutthagamani decides not to go to war despite *Sangha* support for it (W).

The best preference for the *Sangha* is to oppose violence and then find that Dutthagamani dutifully obeys this moral position. But since some violence can be argued to be righteous the second best position of these religious legitimators is to find Dutthagamani obeying their view that he ought to go to war against the Tamil monarch. Since the support for violence could entail some costs in terms of doctrinal interpretation and moral authority, this being the first time in Sinhala history that such a position would be taken, such support would not be the best position to take. The difficulty of this stand would be mitigated by cooperation from the ruler. Obviously, the *Sangha's* worst position would be when Dutthagamani disobeys opposition to violence and goes to war. There is also, however, an ambiguous situation when the *Sangha* supports righteous violence but finds that Dutthagamani's talk of going to war

is nothing more than talk. In this situation, the priesthood is in a politically and morally better position than the ruler. We could give labels to these preferences as follows:

**The Sangha's Preferences:**

*Sangha* opposes violence and Dutthagamani obeys (B)  
*Sangha* supports violence and Dutthagamani obeys (S)  
*Sangha* supports violence and Dutthagamani disobeys (T)  
*Sangha* opposes violence and Dutthagamani disobeys (W)

It is possible now to place these ordinal preferences of each actor in a *game matrix* which is different from the decision tree, but produces the same results. The *Sangha* is the column player and has two options "support" or "oppose" as indicated in the figure. Similarly, Dutthagamani has two options also. The outcomes, which are the

results of the interactions of the options the players have, are found in each cell of the matrix. By convention, the first letter represents the outcome for the row player and the letter after the comma represents the outcome for the column player. For example, the top right cell has the outcomes B, S in it. This implies that Dutthagamani, the row player, will have his best outcome (B) in this cell if the players follow the related options. Similarly, for the same options the *Sangha*, the column player, will get an outcome of (S). The particular options in this context are "attack" for Dutthagamani and "support" for the *Sangha*. For the four different intersections between these options one finds four combined outcomes.

An important property of the above matrix is that Dutthagamani's two best outcomes ( B & S) come from following his attack strategy. This is not always the case with players in a game interaction. But in this case it is so, and it means that Dutthagamani has a *strictly dominant strategy*, *that is no matter what the column player does his attack strategy is going to bring him his best (B) or his second-best (S) return*. Now, this does not mean that the matrix can magically predict victory for Dutthagamani. What it does say is that in the interaction with the *Sangha*, [not with Ellalan], he will find the attack strategy

rewarding in his relations with the *Sangha*, whatever the latter chooses to do, provided the *Sangha's* preferences are as we have argued above.

The *Sangha*, the matrix reveals to us, does not have a dominant strategy. If it opposes Dutthagamani and he decides not to go to war, then the *Sangha* will have its best outcome. But if it supports righteous violence and Dutthagamani goes to war it receives its second-best outcome. Since players in the game have information about the options and preference orders of other players, and there is no doubt that this would be the case in a small polity such as Rohana in Southern Sri Lanka, the *Sangha*, in its perceptive analysis of the prince, knows that Dutthagamani will rationally choose to go to war regardless of its own choice. He has all along signaled this as his best preference. If it chooses to oppose him however, it receives its worst result. The argument for this has already been made. Since it wants to avoid its worst result the *Sangha* will choose to support the war effort. Both parties will find the outcomes in the upper left cell more rewarding than any other.

The game will end in the upper left cell if the players were rational and not deceiving each other. The equilibrium position for the players is also in that cell. There is no reason why either of the players would want to switch strategies since they would get worse outcomes if they do so. And of course, there is no guarantee in a game that rational players will get their best outcomes at the point of equilibrium. The *Sangha* is therefore likely to support Dutthagamani's dominant strategy of "attack", be content with a second-best outcome, and construct the doctrinal bases for a just war. In this way the game-theoretic analysis contributes to the understanding of the event by considering the rationality of the actors involved.

### **The Dutthagamani-Ellalan Game**

Now that we have considered the internal game within Rohana between two important actors, it is possible to turn to a second game, the main ethnic event in the legend. In doing so we must first concern ourselves with the strategic options of each player and the outcomes they expect when these options cross each other.

#### *Strategic options for each player*

Let us consider the strategic options available to Dutthagamani. He could take the same position as his father and cooperate with Tamil domination and rule in Rohana. This is a rational position to take.

According to the chronicles it appears that threats to his rule would be more probable from his own brother Tissa, and ambitious chieftains, than from Ellalan who was far more interested in maintaining the existing arrangements. According to the chronicle Ellalan had ruled for forty four years before his death in battle (*Mahavamsa* ibid.:607). As a result given the life-expectancy of the time Ellalan could not be expected to live long. Therefore Dutthagamani can expect that Ellalan's kingdom will pass to heirs who would then have to rebuild loyalties and perhaps test their mettle in the battlefield. Dutthagamani could, therefore, await his chances. Cooperation with Ellalan was an attractive strategic option.

Alternatively, Dutthagamani could choose to try to conquer the Rajarata kingdom, though such an attempt would not be an easy task. Ellalan had a loyal following among both Sinhalese and Tamil chieftains and petty rulers. These warriors could be expected to oppose Dutthagamani with great force, particularly because the latter's victory would surely threaten their own positions of power. Between Ellalan and Dutthagamani the former seemed more disposed to let smaller rulers manage their own affairs. In fact, according to the chronicles even Dutthagamani's stepbrother may have gone over to Ellalan's side probably because of attractive incentives of this type.

Based on evidence in the chronicles, one could say that Dutthagamani already had a reputation of being quarrelsome and ambitious. His filial disrespect for his father, consistent with these traits, earned him the prefix Duttha to his name, a prefix that has been translated as "enraged one" or "wicked one". These qualities suggest that he would be expected to want more central control over petty rulers, not something that the latter would like very much.

Let us now turn to the options available to Ellalan. It is reasonable to assume that Ellalan would have had enough military intelligence about Dutthagamani's ambitious and aggressive behavior in Rohana. His skirmishes with his brother, which were pacified by the *Sangha*, or the arguments with his father were not unknown. Knowing these matters and Dutthagamani's ambitions, it is very probable that Ellalan had posted sentries all along the riverbanks bordering the two kingdoms, sentries whose efforts were supplemented by the information brought in by other loyalists to the court. He also had a buffer zone of petty rulerships between Rohana and the capital of Rajarata.

Ellalan would therefore have to consider (a) whether to carry out an immediate offensive strike, whenever Dutthagamani's movements intruded in Rajarata territory, or (b) wait and respond when he was personally threatened. The chronicle also implies that Ellalan had a third option (c) retreat to South India, because he has Chola kinship links. This was a gambit encountered in the annals of other monarchs - Sinhala and Tamil - in the medieval period. Retreat to South India would imply that Ellalan could return with a strong force and attempt a re-conquest.

From Ellalan's point of view what were the merits and demerits to each of these options? Carrying out an *early strike* would have been risky. If Dutthagamani returned to Rohana the ensuing chase would mean that Ellalan's forces would have to cross the river, scour the highlands and the coast of the Rohana region to ensure a solid defeat. It is probable that this option had earlier proved to have sufficient costs for the establishment of peace. The strike option would have disturbed the balance of power between Rajarata and Rohana. Further, attacking Dutthagamani's stronghold in this way may also have cost Ellalan the loyalties of Buddhist and non-Buddhist rulers who were in his own camp.

The *retreat option* was a feasible alternative. Ellalan could anticipate that Dutthagamani would not have a stable rule. If Rohana itself seemed too topsy-turvy, how would Dutthagamani manage more chiefs and petty rulers, not to mention an ambitious brother, in a larger kingdom? Therefore returning from India with a replenished force would be viable strategy. Yet, this option was also fraught with risks. Dutthagamani could use his new wealth to appease his brother and other nobles. Once in control at the Rajarata center he might prove to be extremely difficult to dislodge.

Playing the *waiting game* would transfer some important costs to Dutthagamani. His troops would be in unfamiliar Rajarata territory, and they would need to find provisions and logistic support in this area or have a long and constantly threatened supply chain. Waiting would also allow Ellalan the choice when and where to engage in battle. Among these three options, one might conclude that Ellalan would prefer waiting. The chronicles point out that Ellalan did play the waiting game. For many months Dutthagamani made slow but steady progress towards Ellalan's seat of power, that is the Rajarata capital called Anuradhapura. As Dutthagamani waged battle after battle with petty kings and chiefs and emerged victorious after each encounter, Ellalan remained in the capital. It is only when Dutthagamani

finally pitched camp near Anuradhapura that Ellalan consulted his ministers and decided to give battle the next day (*Mahavamsa* ibid.: 632).

Hearing that king Dutthagamani had come to war, Elara, the lord of the earth, assembled his ministers and told them, 'This king is himself a warrior. He also has many warriors, what do my ministers think? What should be really done?' The warriors of Elara, starting with Dighajantu, resolved, 'we will give battle tomorrow.'

### **Strategies and Outcomes**

First, let us remember, that as in the *Sangha* game above, a game-theoretic approach assumes that the players are aware of each other's options. This is not a difficult assumption in this instance.

Second, in putting their strategies into action each player would be expected to consider the outcomes of the interaction of his own strategies with those of the opponent.

1. *Dutthagamani* has two strategic options. He can (a) stay in Rohana and accept the Ellalan hegemony or (b) carry the battle into Rajarata.

2. *Ellalan's* three strategies are similar to the above. He can (a) stay in Rajarata and play the waiting game or (b) carry out an attack against Dutthagamani and assert his hegemonic position. He can also (c) retreat to South India and hope to return.

Each of these actors has to consider the options of the other and therefore weigh the outcomes that result from the interaction of those options with their own.

3. Dutthagamani has to consider the consequences of his actions if he accepted the *status quo* and stayed in Rohana, and Ellalan (a) did not attack but stayed in Rajarata, (b) carried out an early offensive strike (c) retreated. Similarly he has to consider the outcome if he attacked Ellalan and found that (d) the latter had already begun an offensive strike against the Rohana army, (e) was waiting in Rajarata, (f) had retreated to South India. If we order each of these six outcomes for Dutthagamani from 1 to 6, with 6 being the best outcome and 1 being the worst, then we arrive at the following arguments and preference order.

As we know from his behavior towards his father Dutthagamani would consider staying in Rohana among his lower preferences. Among these he would least prefer staying in Rohana and being attacked by Ellalan. Staying in Rohana when Ellalan did not attack would be the second worst option. This would be an acknowledgment of the Rajarata hegemony. But staying in Rohana when Ellalan

leaves his kingdom for South India, an event of very low probability, would be the best outcome for Dutthagamani because he can then march into Anuradhapura.

Attacking Rajarata would be his preferred strategy. He would most prefer attacking Rajarata and find Ellalan retreating. But this seems unlikely. It seems probable that he would have to fight Ellalan. But in doing so, would he prefer to attack Ellalan's territory when the latter himself is playing the waiting game, or would he prefer to encounter Ellalan's strike option? This is not a difficult question to settle. Dutthagamani had always wanted to be on the offensive against Rajarata. The chronicles point out that Dutthagamani wanted to set off into battle with his troops as soon as he stabilized his position on the Rohana throne (ibid.:625). Thus he would prefer to attack when Ellalan exercised his wait option over the strike option. In this way he could capture as much territory and plant his own loyalists before meeting Ellalan. Accordingly we can give these outcomes high ordinal positions.

**Dutthagamani's Preferences:**

|   |   |
|---|---|
| Stay while Ellalan retreats (6)                                     | Attack Rajarata and Ellalan retreats (5)  |
| Stay in Rohana while Ellalan stays in Rajarata (i.e status quo) (2) | Attack when Ellalan stays in Rajarata (4) |
| Stay in Rohana when Ellalan strikes (1)                             | Attack as Ellalan also attacks (3)        |

4. Ellalan would also have a similar set of six preferences. It is likely that he would not want to retreat given either of Dutthagamani's options. The other two strategies therefore dominates this one. Given the arguments made previously, he would most prefer to wait and not go to war with Dutthagamani if the latter had selected to stay, since this would preserve his kingdom and hegemonic position for no effort. If the latter launched his troops into battle, he would prefer to conserve his forces, play the waiting game, and meet Dutthagamani on his (Ellalan's) own territory. If he decided to go on the offensive, his better outcome would come if Dutthagamani himself brought his troops on a campaign into Rajarata that is if the latter also followed his own attack option. Carrying out an attack in Rohana would be the least rewarding, even if Dutthagamani stayed in his kingdom. The reasons for this have been already discussed. These arguments suggest the following preference order for Ellalan.

| <b>Ellalan's Preferences:</b>    |                        |                        |
|----------------------------------|------------------------|------------------------|
| <i>Retreat if</i>                | <i>Wait if</i>         | <i>Early strike if</i> |
| Dutthagamani stays in Rohana (1) | Dutthagamani stays (6) | Dutthagamani stays (3) |

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| Dutthagamani attacks (2) | Dutthagamani attacks (5) | Dutthagamani attacks (4) |
|--------------------------|--------------------------|--------------------------|

Note that I have allocated numbers instead of letters of the alphabet, whereas in the previous game I had used letters from the alphabet. It seems better to do so because numbers would prove to be less confusing. The numbers reflect ordinal positions of the outcomes for each player, in this case Dutthagamani and Ellalan. Such an ordering system does not imply an interval scale, so the best option with number 6 does *not* mean that it carries six times the value of the worst option 1.

**Figure 3 (here)**  
**Dutthagamani-Ellalan Game**

Taking account of these points we can now introduce the game into a normal matrix form as given in Figure 3. There are two actors, one of whom has three and the other has two strategic options we have a two by three matrix. Each of the six cells has two numbers, which represent the ordinal preferences of each player. Again, as mentioned earlier, conventionally the row player's outcomes are placed before the outcomes of the column player's outcomes in each cell.

The figure summarizes what we have already discussed above. Retreat is Ellalan's worst strategy, since he can expect to receive his two worst outcomes (5,2 & 6,1). He will therefore not rationally exercise that option. Dutthagamani will therefore have to forego his best two outcomes since they coincide with Ellalan's worst returns. This leaves us with four cells. Among these we note that Dutthagamani has his worst outcomes if he acts on his "stay" option. As a rational actor he will not stay in Rohana. He therefore will use his "attack" strategy. Given this certainty, Ellalan has two choices to make, namely, "strike early" or "wait". As argued earlier waiting would appear to be more rewarding. He will therefore exercise his wait option. The *equilibrium* point for this encounter is in the top middle cell of the above matrix. If either player moves from this position, they will get or can receive worse outcomes in relation to the other player.

What information do we gain from game-analysis? The representation of the conflict in game-matrix form gives us some information. It tells us that once we know that Ellalan will not retreat, Dutthagamani viewing his options in the light of information about Ellalan's strategies (as well as his own)

discovers he has a dominant strategy. A dominant strategy is one where the player will get more than or at least as much as what he would get using any other strategy. In this case Dutthagamani's attack strategy is *strictly* dominant because he cannot expect better outcomes by changing his strategy to "stay".

Ellalan also has a strictly dominant strategy: to wait whether Dutthagamani mobilized or not. His best outcome would occur if he stayed while Dutthagamani also stayed. His wait strategy would still be strictly dominant because he would get better outcomes than through a strike strategy.

Given all the information about Dutthagamani's options Ellalan knows that Dutthagamani is going to use his dominant strategy. If he decided to strike while Dutthagamani attacked he would then receive his second-worst option. The alternative is therefore to play the waiting game. This brings him his second best outcome found in the upper left-hand cell. Thus Dutthagamani gets his best outcome and Ellalan gets his second best outcome by following the attack strategy. This is a rather odd thing to envision because the historical solution is tragic. Ellalan meets his death by following this strategy. He may not have gone into battle thinking that this would be the result. But all warriors know that death in battle is a real possibility and hence he may have chosen between honorable and ignoble death. As a warrior king, death on the battlefield would be an honorable one. Indeed, he did make a wise choice, because the victorious Dutthagamani honors his enemy (ibid.:633).

Being victorious in battle, he, with chariots, infantry and cavalry, brought Lanka under one parasol and entered the city. Announcing by the beat of the drum, in the city, he had the people for a radius of a yojana assembled and paid homage to the king Elara. At the place where the body fell, he had it cremated in a pyre. He got a cetiya built there and ordered reverence.

By that order of reverence, even today, the lords of Lanka, approaching that area, silence their music.

### **Conclusion: The Advantage of Game Analysis**

The story of Dutthagamani, which is used today in the context of Sinhala-Tamil animosity, contains events that are amenable to game-theoretic analysis. Two of these events were considered here. Different versions of the story in various chronicles have commonly contextualized Dutthagamani's actions in terms of his religious loyalties. We could not expect monastic scribes, who wrote the chronicles, to do anything less than this. But the argument that flows out of game-theoretic logic suggests that *regardless of ethnic or religious loyalties rational rulers would have gone to war under the circumstances*. It appears that Dutthagamani's preference order was indeed influenced by his religious

beliefs, but it is also possible that, being politically astute, he acted out his preferences as *if* he held these beliefs when he did not truly do so, in order to mobilize support for his efforts. The game theoretic analysis reveals some concord between two preference orders, that of Dutthagamani and that of the *Sangha*, but this occurrence might have *different structural motivations*. Because of their different locations in the power structure each sought a goal that would give them security. We could conclude that under the circumstances even a non-Buddhist Dutthagamani would have gone to war. Similarly his opponent the Tamil Hindu Ellalan would have played the waiting game even if he were not a Tamil Hindu.

If this is so, then in what way can this event be characterized as an ethnic event? One of the important findings of rational choice theories is that rational individual encounters have effects on the collectivity. Even though the kings in this battle are rational players taking account of individual preferences, the consequences of the battle are visited on more than the immediate actors. The battle had an effect on the society of the time, and especially on the *Sangha*. As Heinz Bechert (1970) argued, the *Sangha* itself was a rational political actor that was required to justify its actions in terms of religious ideology. This justification led to later valorizing of the battle with ethnic content and the interpretations of this battle eventually came to influence Sri Lankan politics and ethnic relations.

## Notes

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1. The chronicles and most scholarly considerations of this event refer to Ellalan as Elara. The Tamil version of Elara is Ellaalan (pronounced Ellaalan). I have chosen to use the Sinhala usage for Dutthagamani (instead of the Tamilized version Tutthagamani) and the Tamil Ellalan (instead of the Pali-Sinhala version Elara).
  2. At a ceremony when they were ten and twelve years old, Dutthagamani and his brother were asked to promise that they would not fight the Tamils. Both brothers refused to do so. Dutthagamani goes to his bed and lies down in a curled position. When the queen asks him why, he says that he cannot stretch himself with the Tamils to the north and the ocean to the south. See Mv 1989 22:78-86 p615-616.
  3. When the king refuses permission for the warrior prince to fight the Tamils, Dutthagamani states, " If my father were a man, he would not speak like this. Therefore, let him wear this" and sends the king a female ornament. The king angered by this threatens to bind him up so as to protect Dutthagamani from his own ambitions. Mv 1989 24:3-7 p625.
  4. This series of events is preceded by a minor war with his brother Tissa. Mv 1989 24:14-58.
  5. Dutthagamani fights a series of battles before he finally meets Ellalan. These are described in Mv 1989 25:7-51 p629-632.
  6. Mv 1989 25:55-75.