

# Rules for Composing Event Statements

8 March 2011

Version xx

# Outline of Parsing Procedure

- Compose event statements for all current and future events referenced in the document
- Identify causal connections between events that are expressed in the document
- Identify definitional connections between events that are expressed in the document
- Label event statements that are policy events
- Label event statements that are hypothetical events

# Outline of Parsing Procedure

- Compose event statements for all current and future events referenced in the document
- Identify causal connections between events that are expressed in the document
- Identify definitional connections between events that are expressed in the document
- Label event statements that are policy events
- Label event statements that are hypothetical events



# Definitions: Events

- **Future event** is any event in the document that describes a future situation.
- **Forecast statement** is any text in the document that refers to a possible future event
  
- **Current event** is any event in the document that describes a current situation.
- **Current statement** is any text in the document that refers to a possible current event.
  
- **Event statement** is text that we write to clearly articulate the event that is described in the document.
- **Current event statement** is text that we write to clearly articulate the current event that is described in the document.
- **Forecast event statement** is text that we write to clearly articulate the future event that is described in the document.

# Summary of Rules for Composing Current and Future Event Statements

- 1. Event statements should be created for all current and future events referenced in the document.***
- 2. Event statements should, where possible, be self-contained.***
- 3. Event statements should be composed using the language that appears in the original text.***
- 4. Event statements should state a specific time span even if the document is imprecise.***
- 5. Event statements should be constructed as non-conditional and non-causal statements.***
- 6. Event statements should simply assert that something is true or will be true. No probabilistic or transitional language should be included.***
- 7. When rules conflict, use best judgment to resolve conflict.***

# ***Rule 1: Event statements should be created for all current and future events referenced in the document.***

Document Text	Current Events	Forecast Events
1. United States-led counterterrorism efforts have seriously damaged the leadership of al-Qa'ida and disrupted its operations; however, we judge that al-Qa'ida will continue to pose the greatest threat to the Homeland and US interests abroad by a single terrorist organization.	1.1 By April 2006, United States-led counterterrorism efforts seriously damaged the leadership of al-Qa'ida..	
	1.2. By April 2006, United States-led counterterrorism efforts disrupted the operations of al-Qa'ida..	
		1.3 Al-Qa'ida will pose the greatest threat to the Homeland by a single terrorist organization during the April 2006 to April 2007 timeframe.
		1.4 Al-Qa'ida will pose the greatest threat to US interests abroad by a single terrorist organization during the April 2006 to April 2007 timeframe

This paragraph refers to four events. These are parsed as two current and two future event statements.

## Rule 2: *Event statements should, where possible, be self-contained.*

Document Text	Current Events	Forecast Events
1. United States-led counterterrorism efforts have seriously damaged the leadership of al-Qa'ida and disrupted its operations; however, we judge that al-Qa'ida will continue to pose the greatest threat to the Homeland and US interests abroad by a single terrorist organization.	1.1 By April 2006, United States-led counterterrorism efforts seriously damaged the leadership of al-Qa'ida..	
	1.2. By April 2006, United States-led counterterrorism efforts disrupted the operations of al-Qa'ida..	
		1.3 Al-Qa'ida will pose the greatest threat to the Homeland by a single terrorist organization during the April 2006 to April 2007 timeframe.
		1.4 Al-Qa'ida will pose the greatest threat to US interests abroad by a single terrorist organization during the April 2006 to April 2007 timeframe

Each event statement can be read and understood without referring to other statements. This usually requires repeating phrases from the original text multiple times. In this case the phrase “Al-Qa'ida will pose the greatest threat” is repeated in both 1.3 and 1.4.

## ***Rule 3: Event statements should be composed using the language that appears in the original text.***

Document Text	Current Events	Forecast Events
1. United States-led counterterrorism efforts have seriously damaged the leadership of al-Qa'ida and disrupted its operations; however, we judge that al-Qa'ida will continue to pose the greatest threat to the Homeland and US interests abroad by a single terrorist organization.	1.1 By April 2006, United States-led counterterrorism efforts seriously damaged the leadership of al-Qa'ida..	
	1.2. By April 2006, United States-led counterterrorism efforts disrupted the operations of al-Qa'ida..	
		1.3 Al-Qa'ida will pose the greatest threat to the Homeland by a single terrorist organization during the April 2006 to April 2007 timeframe.
		1.4 Al-Qa'ida will pose the greatest threat to US interests abroad by a single terrorist organization during the April 2006 to April 2007 timeframe

Although various parts of the original text may need to be compiled in new ways to create event statements, the language from the original text should be used to create event statements. Even if the original text is unclear, avoid introducing new words that potentially change the meaning of the original text. Leave it unclear. In this case, words and phrases such as “seriously damaged”, “disrupted the operations”, “greatest threat”, etc. may be hard to define with precision. They should still be included in the event statements.



## ***Rule 4: Event statements should state a specific time span even if the document is imprecise.***

Document Text	Current Events	Forecast Events
1. United States-led counterterrorism efforts have seriously damaged the leadership of al-Qa'ida and disrupted its operations; however, we judge that al-Qa'ida will continue to pose the greatest threat to the Homeland and US interests abroad by a single terrorist organization.	1.1 By April 2006, United States-led counterterrorism efforts seriously damaged the leadership of al-Qa'ida..	
	1.2. By April 2006, United States-led counterterrorism efforts disrupted the operations of al-Qa'ida..	
		1.3 Al-Qa'ida will pose the greatest threat to the Homeland by a single terrorist organization during the April 2006 to April 2007 timeframe.
		1.4 Al-Qa'ida will pose the greatest threat to US interests abroad by a single terrorist organization during the April 2006 to April 2007 timeframe

If the original document provides forecasts for a specific time period, then state that time period in each event statement. If the document is not precise (e.g. “in the relatively near future”) then assign a representative time period for that document.

## ***Rule 5: Event statements should be constructed as non-conditional and non-causal statements***

Document Text	Current Events	Forecast Events
5. Greater pluralism and more responsive political systems in Muslim majority nations would alleviate some of the grievances jihadists exploit.		5.1 There will be greater pluralism in Muslim majority nations during the April 2006 to April 2007 timeframe.
		5.2 There will be more responsive political systems in Muslim majority nations during the April 2006 to April 2007 timeframe.
		5.3 Some of the grievances jihadists exploit will be alleviated in Muslim majority nations during the April 2006 to April 2007 timeframe.

Here the document text refers to three distinct events where the first two events lead to (cause) the third event. In writing the event statement for the third event, the first two events should not be mentioned.

**Rule 6: *Event statements should simply assert that something is true or will be true. No probabilistic or transitional language should be included.***

Document Text	Current Events	Forecast Events
7. We assess that the global jihadist movement is decentralized, lacks a coherent global strategy, and is becoming more diffuse.	7.1 By April 2006, the global jihadist movement is decentralized.	
	7.2 By April 2006, the global jihadist movement lacks a coherent global strategy.	
		7.3 The global jihadist movement will be more diffuse during the April 2006 to April 2007 timeframe.
8. New jihadist networks and cells, with anti-American agendas, are increasingly likely to emerge.		8.1 There will be new jihadist networks and cells with anti-American agendas in the April 2006 to April 2007 timeframe.

Text item 7 asserts that the movement “is becoming more diffuse,” but the event statement simple states “will be more diffuse.” Text item 8 asserts “increasingly likely to emerge,” but the forecast event statement states “there will be.”

## Rule 7: *When rules conflict, use best judgment to resolve conflict*

Document Text	Current Events	Forecast Events
33. The loss of key leaders, particularly Usama Bin Ladin, Ayman al-Zawahiri, and al-Zarqawi, in rapid succession, probably would cause the group to fracture into smaller groups.		33.1 There will be a loss of key leaders in rapid succession during the April 2006-April 2007 timeframe.
		33.2 The merged Al-Qa'ida, Abu Mus'ab al-Zarqawi's network will fracture into smaller groups in the April 2006 to April 2007 timeframe.
34. Although like-minded individuals would endeavor to carry on the mission, the loss of these key leaders would exacerbate strains and disagreements.		34.1 Like-minded individuals would endeavor to carry on the mission in the April 2006 to April 2007 timeframe.
		34.2 There will be exacerbated strains and disagreements among like-minded individuals in the April 2006 – April 2007 timeframe.

Rule 5 says that event statements should not contain causal or conditional connections, so 34.1 and 34.2 do not mention the “loss of key leaders” from 33. But this violates Rule 2 which says event statements should be self-contained. 34.1 and 34.2 violate Rule 2 because the reference to “like-minded individuals” is senseless without referencing 33.

# Outline of Parsing Procedure

- Compose event statements for all current and future events referenced in the document
- Identify causal connections between events that are expressed in the document
- Identify definitional connections between events that are expressed in the document
- Label event statements that are policy events
- Label event statements that are hypothetical events



# Definitions: Causal Connections

- ***Causal precursor*** – Event A is a causal precursor of event B when the document claims, in any way, that the occurrence of event A directly increases the chances that event B will occur.
- ***Causal connection*** – If event A is a causal precursor of event B then events A and B are causally connected.

**Rule 8: For each event, list any events indicated in the document that are direct causal precursors.**

Causal Precursors

Document Text	Current Events	Forecast Events		
3. Although we cannot measure the extent of the spread with precision, a large body of all-source reporting indicates that activists identifying themselves as jihadists, although a small percentage of Muslims, are increasing in both number and geographic dispersion.	3.1 In April 2006, Activists identifying themselves as jihadists are a small percentage of Muslims.			
	3.2 By April 2006, activists identifying themselves as jihadists have increased in both number and geographic dispersion.			
		3.3 Activists identifying themselves as jihadists will increase in number during the April 2006 to April 2007 timeframe.		
		3.4 Activists identifying themselves as jihadists will increase in geographic dispersion during the April 2006 to April 2007 timeframe.		
4. If this trend continues, threats to US interests at home and abroad will become more diverse, leading to increasing attacks worldwide.		4.1 Threats to US interests at home will become more diverse during the April 2006 to April 2007 timeframe.		3.1, 3.2, 3.3, 3.4
		4.2 Threats to US interests abroad will become more diverse during the April 2006 to April 2007 timeframe.		3.1, 3.2, 3.3, 3.4
		4.3 There will be increasing jihadist attacks worldwide during the April 2006 to April 2007 timeframe		4.1, 4.2

Based on the reading of the original text, the phrase “If this trend continues, ...” implies that 3.1, 3.2, 3.3 and 3.4 are direct causes of events 4.1 and 4.2. In turn 4.1 and 4.2 are direct causes of 4.3.

# Outline of Parsing Procedure

- Compose event statements for all current and future events referenced in the document
- Identify causal connections between events that are expressed in the document
- Identify definitional connections between events that are expressed in the document
- Label event statements that are policy events
- Label event statements that are hypothetical events





# Definitions: Definitional connected

- ***Definitional precursor*** – Event A is a definition precursor of event B when event B is only meaningful if event A occurred.
- ***Definitional connection*** – If event A is a definition precursor of event B, then events A and B are definitional connected

**Rule 9: For each event, list any events indicated in the document that are direct definitional precursors.**

Causal Precursors



Document Text	Current Events	Forecast Events		
33. The loss of key leaders, particularly Usama Bin Ladin, Ayman al-Zawahiri, and al-Zarqawi, in rapid succession, probably would cause the group to fracture into smaller groups.		33.1 There will be a loss of key leaders in rapid succession during the April 2006-April 2007 timeframe.		
		33.2 The merged Al-Qa'ida, Abu Mus'ab al-Zarqawi's network will fracture into smaller groups in the April 2006 to April 2007 timeframe.		33.1
34. Although like-minded individuals would endeavor to carry on the mission, the loss of these key leaders would exacerbate strains and disagreements.		34.1 Like-minded individuals would endeavor to carry on the mission in the April 2006 to April 2007 timeframe.		33.1 D
		34.2 There will be exacerbated strains and disagreements among like-minded individuals in the April 2006 – April 2007 timeframe.		33.1 D

A definitional precursor simply means that the event statement doesn't make sense unless you look at the precursor event statement. In this case 34.1 and 34.2 refer to "like-minded individuals", which is meaningless unless you know the information in 33.1.

Definitional precursors are rare. Deal with them in two steps. First, state the forecast event as specified in the text, as was done for 34.1 and 34.2. Second, rewrite them consistent with Rule 2 (event statements should be self-contained). So, statement 3.4 becomes, "Like-minded individuals would endeavor to carry on the mission if there was a loss of key leaders in rapid succession during the April 2006 to April 2007 timeframe."

# Outline of Parsing Procedure

- Compose event statements for all current and future events referenced in the document
- Identify causal connections between events that are expressed in the document
- Identify definitional connections between events that are expressed in the document
- Label event statements that are policy events
- Label event statements that are hypothetical events



**Rule 10: For each event, indicate if it is a policy or decision recommendation.**

Document Text	Current Events	Forecast Events	Causal Precursors	
25. Exposing the religious and political straitjacket that is implied by the jihadists propaganda would help to divide them from the audiences they seek to persuade.		25.1 The religious and political straitjacket that is implied by the jihadist propaganda will be exposed during the April 2006 to April 2007 timeframe.	Policy	
		25.2 Jihadists will be divided from the audiences they seek to persuade during the April 2006 to April 2007 timeframe.		25.1

A policy or decision event is a recommendation of something the presumed consumer of the document should do. In this case the document was a National Intelligence Estimate and it appears to recommend that US policy makers adopt a course of action of “Exposing the religious and political straitjacket that is ... “

## Rule 11: For each event, indicate if it is a hypothetical event.

Document Text	Current Events	Forecast Events	Policy or Hypothetical?	Causal Precursors
33. The loss of key leaders, particularly Usama Bin Ladin, Ayman al-Zawahiri, and al-Zarqawi, in rapid succession, probably would cause the group to fracture into smaller groups.		33.1 There will be a loss of key leaders in rapid succession during the April 2006-April 2007 timeframe.	Hypothetical	
		33.2 The merged Al-Qa'ida, Abu Mus'ab al-Zarqawi's network will fracture into smaller groups in the April 2006 to April 2007 timeframe.		33.1
34. Although like-minded individuals would endeavor to carry on the mission, the loss of these key leaders would exacerbate strains and disagreements.		34.1 Like-minded individuals would endeavor to carry on the mission in the April 2006 to April 2007 timeframe.		33.1 D
		34.2 There will be exacerbated strains and disagreements among like-minded individuals in the April 2006 – April 2007 timeframe.		33.1 D

A hypothetical event is any event, other than policy events, which the document introduces as a purely hypothetical possibility. In this case the statement about the loss of key leaders seems to describe a hypothetical scenario rather than any kind of forecast.

The determination of whether an event is “purely hypothetical” is a judgment call. Don't agonize over this. The determination that something is hypothetical will not significantly affect accuracy analysis.

# FYI: How we use this partitioning

- Study Forecast Accuracy
- Study Accuracy of causal connections described in the document

# Study forecast accuracy

- Purpose
  - Measure calibration of forecasts expressed with varying degrees of certainty
- Method:
  - List all future events for which there are no hypothetical, policy or definitional precursors
  - People read the forecast document and then assign *inferred probabilities* to each listed future event
  - SMEs, who do not see the forecast document, retrospectively judge whether each event occurred
  - Calibration (and other standard measures) applied.

# Study accuracy of causal model

- Purpose:
  - Measure degree to which a claim that forecast documents helps policy makers understand the situation (e.g. key drivers) is true.
- Method:
  - Examine each causal connection ( $A \rightarrow B$ )
  - If A and B occur, label it accurate
  - If A occurs and B does not, label it inaccurate
  - If A does not occur and B occurs, label it irrelevant
  - If neither occurs, then label it accurate.