

# Systemic Approaches to Conflict Transformation and Management

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# Outline

- 1 Introduction
- 2 Conflicts
- 3 Systems
- 4 Decisions

# 3 areas of study

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Peace Studies

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## 3 areas of study

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Peace Studies    Conflict Transformation  
and Management

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## 3 areas of study

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Peace Studies

Conflict Transformation  
and Management

Formal Tools of  
Decision Support

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# First questions

- What is Peace?
- How do we compare Peace to War?
- Is Peace absence of War?
- What type of Peace are we talking about?

# More questions

- What is a conflict?
- Who is involved in a conflict and why?
- What type of conflicts are we concerned about?
- What does it mean transforming a conflict?

# Even more questions

- What does it mean aiding to decide?
- What does it mean managing a conflict or a crisis?
- What type of tools are we talking about?



# History of Peace Studies

- 1948 University of Manchester, Indiana, USA
- 1957 University of Michigan, E. and K. Boulding, Journal of Conflict Resolution.
- 1959 PRIO (Oslo), J. Galtung, Journal of Peace Research, Peace Studies.
  - Cold War, Armaments' race, Nuclear Threat.

# History of Peace Studies

- Bradford University, Berghof Foundation, Many University training courses.
- Systemic Approach to Conflict Transformation and Management. Conflict Resolution.
- Negotiation, Mediation, Humanitarian Action, Crisis Management ...
- End of Cold war, new conflicts, new forms of conflict ...

# Criticisms

- Are peace studies a scientific (interdisciplinary) field or just an ideological (religious) standing?
- If yes, what is exactly the subject of scientific investigation?
- Are peace studies useful (practically used) or just ideology and pacifism?
- If they are useful, are they effective? Did they improve something?

# Scientific Neighbourhood

- Political Science, International Relations, Geopolitics.
- Economy, Political Economy and the Social Sciences.
- International law and Human Rights.
- Psychology, Interpersonal Conflicts and Cognitive Studies.
- Decision Sciences and Technologies.

# Case 1: South Africa

- African kingdoms;
- Dutch and Protestants colonisation, Boers war and the British empire;
- Independence and Apartheid;
- The Rainbow Nation.

# Case 1: South Africa

- Nation Building;
- Transitional Justice;
- Social conflicts maintained;
- From Solid Economy to Solid Economy.

# Case 1: South Africa

- Nation Building;
- Transitional Justice;
- Social conflicts maintained;
- From Solid Economy to Solid Economy.

Conflict transformed constructively

New conflicts remain though active.

## Case 2: Zimbabwe

- Cecil Rhodes and the British Empire;
- Independence of Rhodesia and Civil War;
- The “reign” of R. Mugabe;
- The Zimbabwe tragedy.



## Case 2: Zimbabwe

- From W vs B to B vs W;
- Social conflicts covered by tribal and ethnic violence;
- Institutions dissolved;
- From Solid Economy to Poverty.

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No conflict transformation

Destructive continuation of the existing conflict.

# General Overview

- Conflicts are natural and occur regularly.
- A conflict can be source of creation, innovation and progress.
- Violent conflicts are destructive both for the participants and the neighbours.
- Violence is not only physical action, but also absence of justice, of freedom, of means for life, it can be structural and considered as “normal”.

# Typologies

- Violent conflicts can have different territorial extension (national, regional, local), but can also extend beyond the notion of territory;
- Violent conflicts can be of different intensity;
- Violent conflicts can be justified with different motivations (religion, nationalism, access to natural resources, history, defence to ... etc.);
- Violent conflicts can be asymmetric.

# Our perspective

- Conflicts can be transformed;
- Conflicts can be managed and conducted constructively;
- Conflicts can be studied and modelled;
- Beyond any ethical, ideological or moral stand, a constructive exit from a conflict is “rational” and “beneficial”.

## Some consequences

- There is a subject of scientific investigation and this is interdisciplinary.
- We are going to adapt a formal approach in approaching this subject of study;
- We are going to privilege a pragmatic approach in exploring how to manage and transform conflicts.

# What does it mean formal?

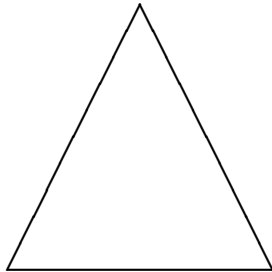
- Use of formal languages (minimising ambiguity).
- Abstract languages and instantiation.
- Scientifically critical.
- Pretending to introduce a dimension of rationality.

# What does it mean pragmatic?

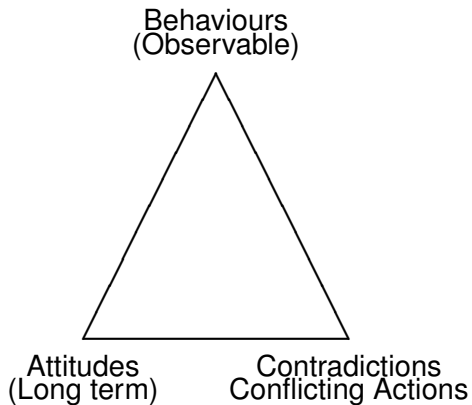
- Think before acting.
- Think rationally before implying emotions.
- Take care of the time horizon even at long term.
- Adopt a systemic view of the conflict.
- Implement second order changes.



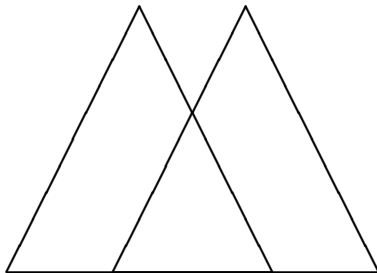
# Galtung's Triangle



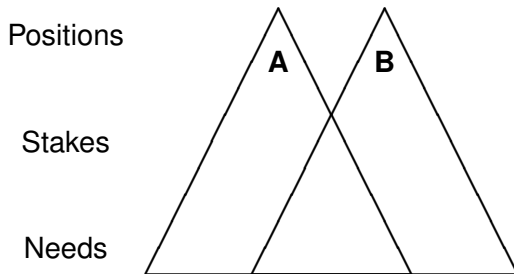
# Galtung's Triangle



# Ramsbotham's Model

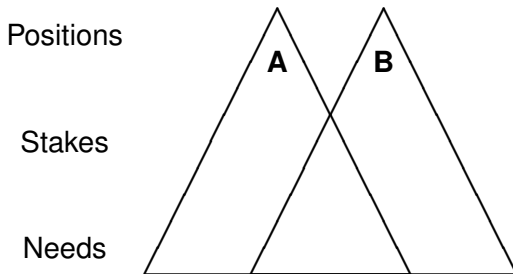


# Ramsbotham's Model



## Ramsbotham's Model

If **A** and **B** have different positions, does not mean they do not share needs and stakes.



# Our questions

- Where is the conflict coming from?
- Who is involved in the conflict?
- Why these entities are involved in the conflict?
- What really matters for the participants in this conflict?
- What can and should change?

# Our objectives

- Absence of violence and destruction (negative peace).
- Establishment of justice, freedom, prosperity, personal and collective accomplishment (positive peace).
- Sustainable peace (long term and for all the parts involved).

# What is a system?

A collection (set) of items such that:

- they interact between them;
- the behaviour of the system is different from the items within it, considered alone;
- there is a boundary, separating the system from the rest of the world;
- there exist feedback loops to the system itself;



# Different types of systems

- Open and closed systems.
- Controllable, unpredictable and chaotic systems.
- Natural and Artificial systems.
- Allopoietic, autopoietic and evolutionary systems.

# A useful concept

## Systems modelling and management

Using the concept of system we are able to show how different parts interact between them allowing the emergence of a behaviour (of the system) otherwise inexplicable.

# Examples of systems

- A car
- A city
- A family/group
- A market
- A team/production unit/administration
- A conflict ...

# Conflict as a system

## Narrative of A

A is afraid of B because it became independent from B two centuries ago.

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## Narrative of B

B is afraid of A because it has been established despite the actions of A against B one century ago.

# Conflict as a system

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## Narrative of B

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## Consequences

A arms itself because of its narrative and thus, confirms the narrative of B. B arms itself because of its narrative and thus, confirms the narrative of A. The two narratives are mutually confirmed and push to a never ending arming rush.

# Conflict as a system

Arming A and B will not prevent a violent conflict between them

Instead increases the probability of using the available arms (historically proven). Arming A and B decreases the welfare for both A and B increasing the animosity of people A against B and people of B against A.

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A and B do not exist

In reality the two narratives conceal the fact that B of narrative A does not exist any more and A of narrative B does not exist any more.



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Consequences

However, stopping rearming and installing a dialogue is necessary, but not sufficient, because of the broader system within which this conflict is positioned.

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Change 2

Modify how the values of one or more parameters can be modified.

# Example

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This has a severe negative impact upon the social life of the community.

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Stop selling alcohol drinks and arrest the drunk men.

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There are too many drunk men, mainly the week-ends

This has a severe negative impact upon the social life of the community.

Change 1

Stop selling alcohol drinks and arrest the drunk men.

Change 2

Organise free drinking events educating the participants to responsible drinking.

# What do we need?

- Identify the parts;
- Identify the interactions;
- Characterise the interactions;
- Trace the boundary;
- Identify the external world and the feedback loops (if any).



## Example, (Richardson model)

*A* and *B* are two countries

$G(A)$  and  $G(B)$  being the two governments and  $P(A)$  and  $P(B)$  the two populations, the stakes being the security  $S(A)$  and  $S(B)$  and the welfare  $W(A)$  and  $W(B)$  of them.

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Let  $x$  and  $y$

be the arming expenses of the *A* and *B* respectively.

# Graphical representation

$P(A)$

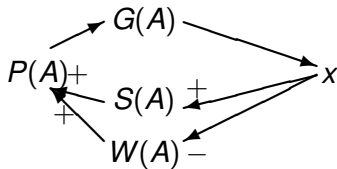
$G(A)$

$S(A)$

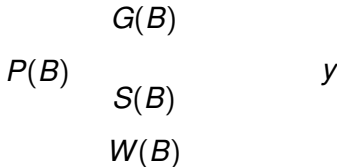
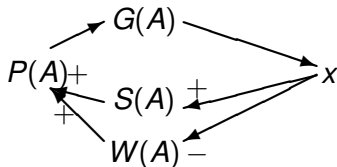
$W(A)$

$x$

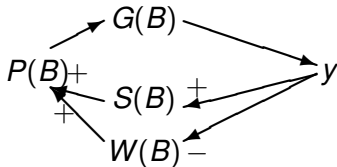
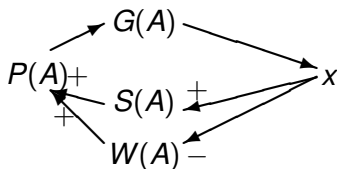
# Graphical representation



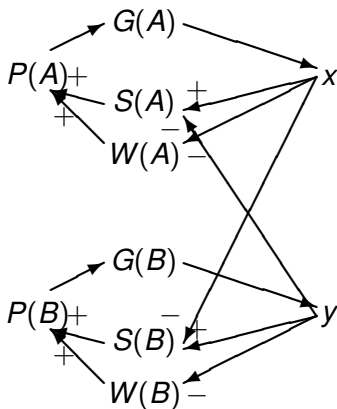
# Graphical representation



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# Graphical representation



## Some equations

$$\frac{dx}{dt} = ky - \alpha x + p$$

$$\frac{dy}{dt} = kx - \beta y + q$$

### Where

$k, l$  are security coefficients

$\alpha, \beta$  are welfare coefficients

$p, q$  are constants of “animosity”



## Some first considerations

- If “animosity” is positive it contributes to increase investing in “arms”. If it is negative it contributes in diminishing arms race.
- The higher the feeling of insecurity and the more the population will accept arms spending despite welfare reduction.
- Countries with a high welfare and strong democratic institutions will be less keen to accept high spending in arms.

## Things missing

- International context.
- Internal conflicts.
- Network of relationships.
- Communications patterns.
- Bounded options of changing

## More about systems

- When we observe a system we become part of the system.
- When we model a system we need to fix where the observer/modeller stands.
- When we model a system we need to know for which purpose we do it.
- When we model a system we need to acknowledge that we only model part of the reality and not the reality.
- We need to know how communication designs the system.

# Pragmatics of human communication

- You cannot not communicate.
- Each communication carries a content and a relationship.
- The nature of the relationship depends on the punctuation of the communication pattern.
- Communication follows “analogies” and “information”.
- Communication can be symmetric (between peers) or complementary.

# What is a decision?

## A decision is

an irreversible allocation of resources to a set of potential actions

- Resources.
- Actions.
- Responsibility.

# What is a problem?

## A problem is

an existing allocation of resources which is “unsatisfactory” for somebody, this insatisfaction being expressed.

## Not everybody has the same problem

Satisfaction, perception of (in)satisfaction and expression of (in)satisfaction are subjective.

# What is a decision process?

A decision process is

the activities of a “decision maker” in order to establish a new allocation of resources satisfying her.

- Intelligence.
- Design.
- Choice.

# What is a decision aiding process?

A decision aiding process is

the activities occurring between a “client” (asking) and an analyst (offering) an advice about a decision process (where the client is implied).

Consensual construction of cognitive artifacts

- Representing the problem situation.
- Formulating a decision problem.
- Formulating a recommendation legitimating action.



# What is a problem situation?

A model where we emphasise:

- Participants/Stakeholders.
- Objects/Stakes.
- Resources/Commitments.

# What is decision power?

## Decision power is

the ability of an entity, involved in a decision process, to conduct the process towards a certain outcome.

## Decision power implies responsibility

An analyst is part of a decision process, it influences the outcome, but has no decision power, because has no responsibility. The same applies to many other actors of the decision process.

# What is a collective decision process?

## A collective decision process

is a decision process where decision power (and responsibility) is distributed among several participants.

## To be noted:

- Collective does not mean cooperative.
- Collective does not mean sharing information.
- Collective does not mean communicative.

# What is a conflict?

A problem situation within a Collective Decision Process about:

- Sensing and perceiving a problem.
- Formulating a problem.
- Modelling a problem.
- Solving a problem.
- Integrating the feedback after a problem is handled.

## Professional remarks

### As analysts implied with conflicts transformation and management

- We are not interested in interpersonal conflicts.
- We are not interested about conflicts constructively conducted.
- We are not conducting conflicts but aiding to do so.
- We are involved in the process, but not in the conflict.
- We should always remember that we pursue a constructive outcome of the conflict.

# Problem situation

A conflict is a system for which we need to identify:

- The stakeholders.
- Their stakes.
- Their commitments.
- Their interactions and relationships.
- The impact of time.

# Problem formulation

If the problem situation is validated with the client then we need to formulate a decision problem

- Potential actions to undertake.
- Attributes describing or assessing the actions.
- A precise problem statement.

## Critical points

- How do we construct the potential actions?
- How to make out of such actions a policy?
- How these actions make a global sense and why are they going to contribute transforming the conflict?
- Will this be a change 1 or a change 2?



# What is a cognitive map?

- A graph where nodes are actors/objects/resources;
- where “positive arcs” (denoted with a +) represent a positive/proportional impact/relation;
- where “negative arcs” (denoted with a –) represent a negative/inverse impact/relation.
- Cognitive maps are models of how we do perceive reality.

## More about cognitive maps

- Arcs are not inferences.
- Arcs are not necessarily causal relations.
- Nodes can be of several different types.
- Cognitive maps are a model of how one or more stakeholders perceive the problem situation.

# Violence cycles

Armed  
Groups

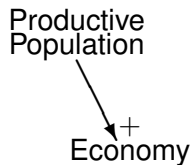
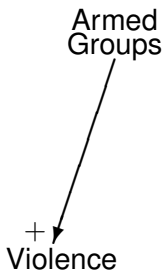
Productive  
Population

Violence

Economy

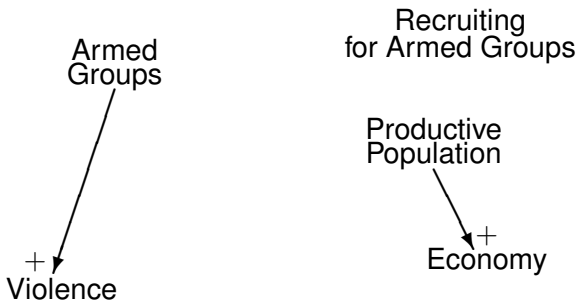
Bartolucci and Gallo, 2017

# Violence cycles



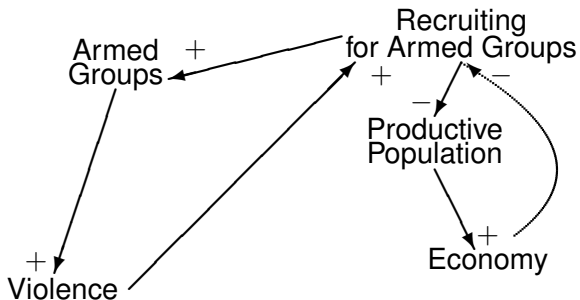
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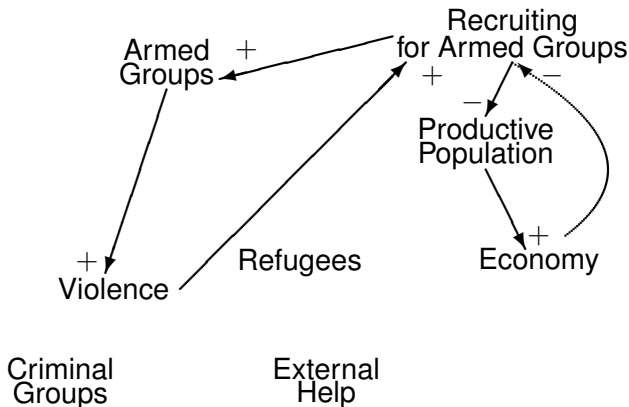
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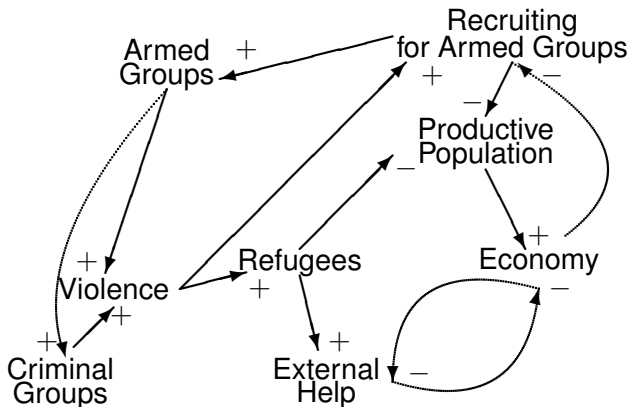
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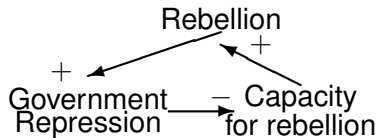
# Ethnic Rebellion Cycles

Rebellion

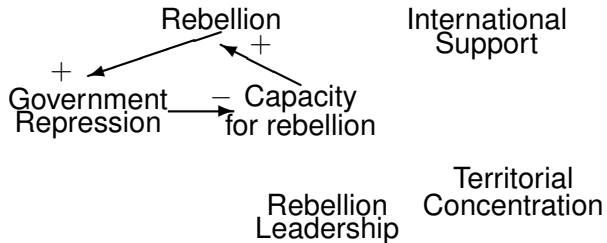
Government  
Repression

Capacity  
for rebellion

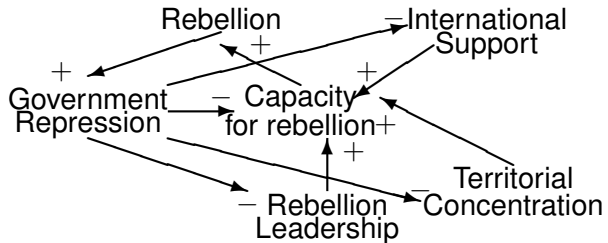
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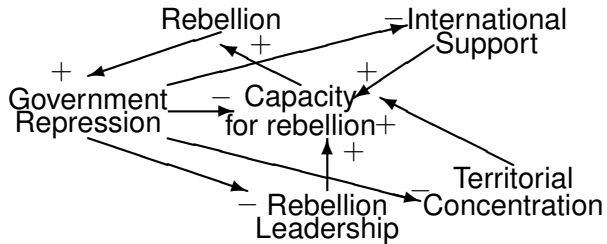
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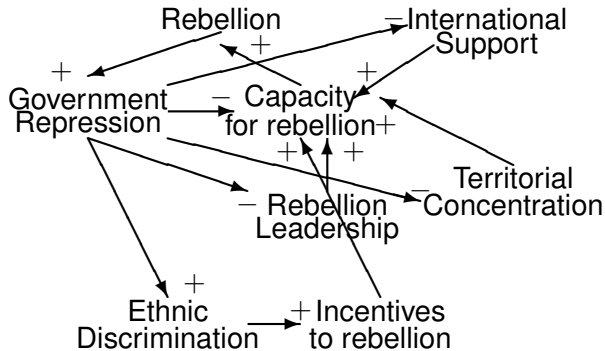
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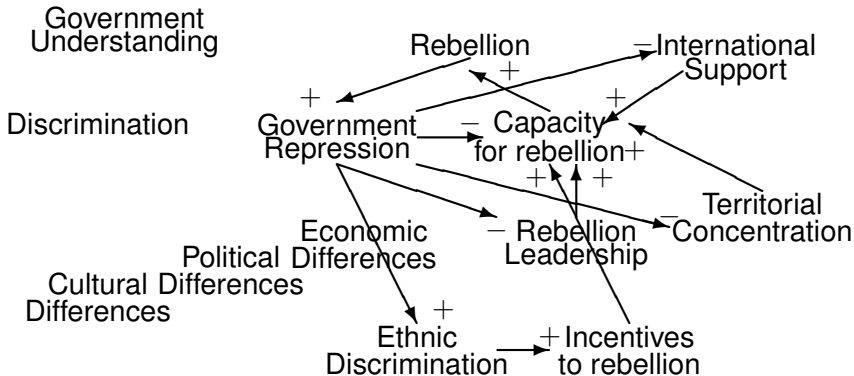
Ethnic  
Discrimination

Incentives  
to rebellion

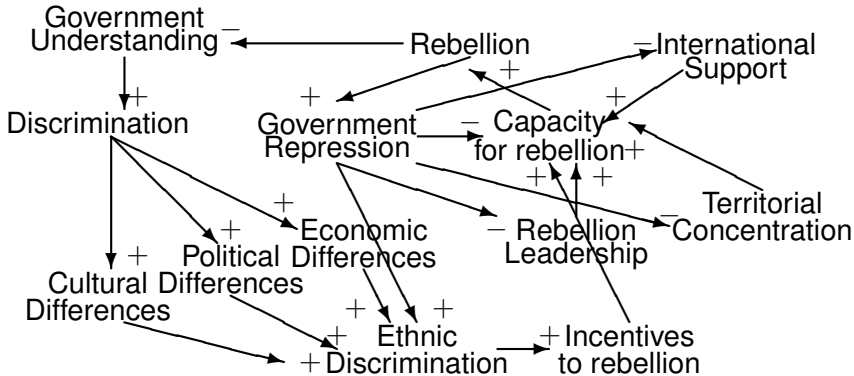
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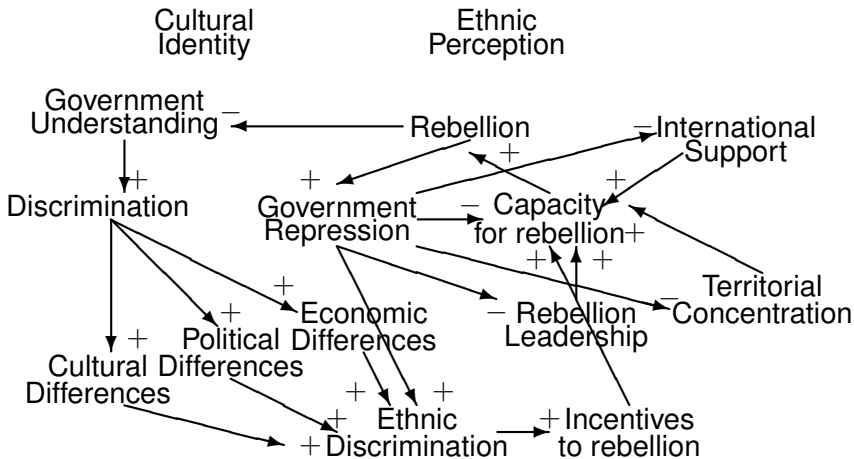


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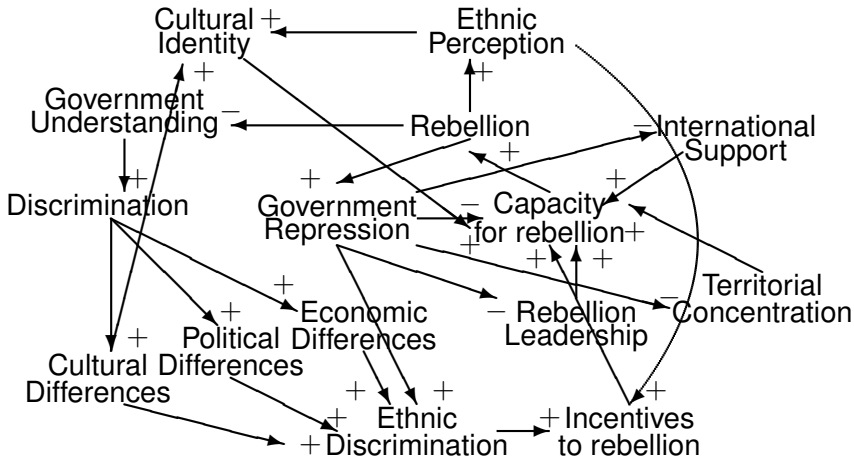




# Ethnic Rebellion Cycles



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