



From Goal-Achievement to the Maintenance of Relationships: Extending Business Process Models with Homeostasis and Appreciation

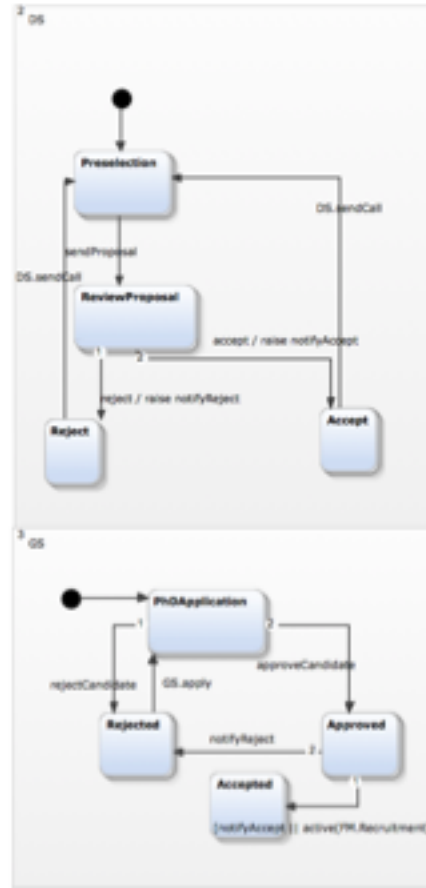
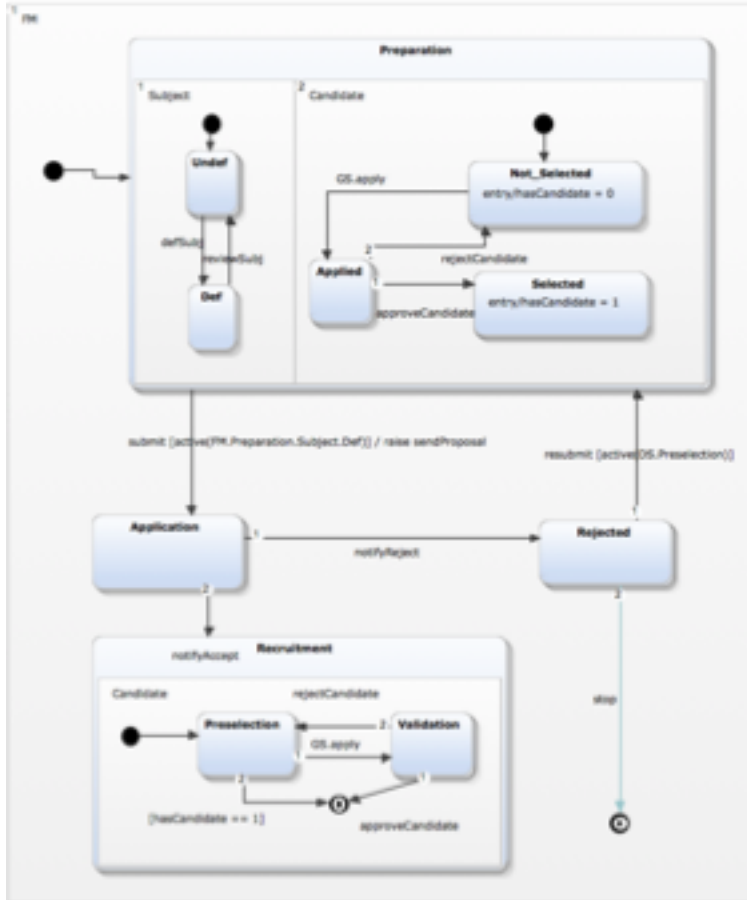
Irina Rychkova
Gil Regev



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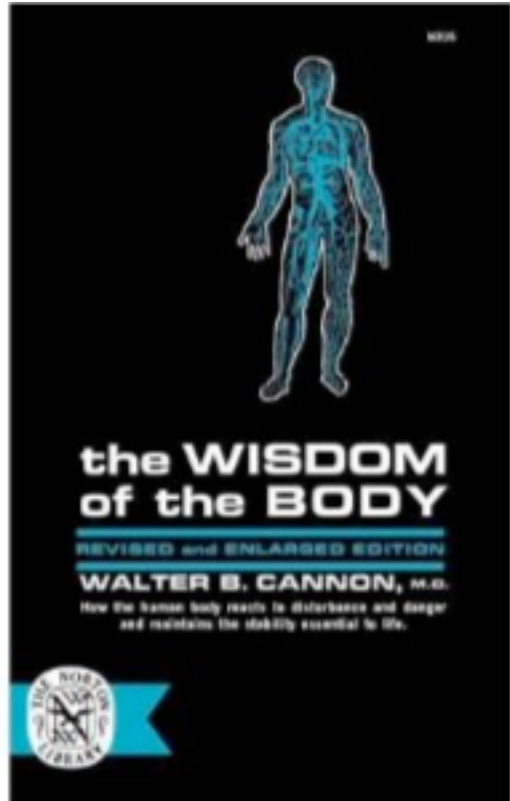
Traditional Business Process Models



Deterministic
Mechanistic
No place for mindset

Where is the “Socio” part
of the Socio-Technical
approach?

Homeostasis



“The Living being is stable,

It must be so in order not to be destroyed, dissolved or disintegrated by the colossal forces, often adverse, which surround it”

“Organisms composed of **material which is characterized by the utmost inconstancy and unsteadiness**, have somehow learned the methods of **maintaining constancy and keeping steady** in the presence of **conditions** which might reasonably be expected to prove **profoundly disturbing.**”

Source: Cannon W.B. The Wisdom of the Body

Goal-Orientation

Behavior, Purpose and Teleology

Arturo Rosenblueth; Norbert Wiener; Julian Bigelow

Philosophy of Science, Volume 10, Issue 1 (Jan., 1943), 18-24.

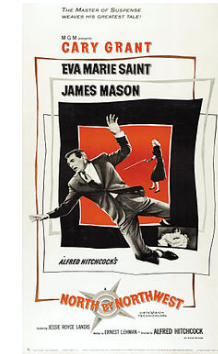
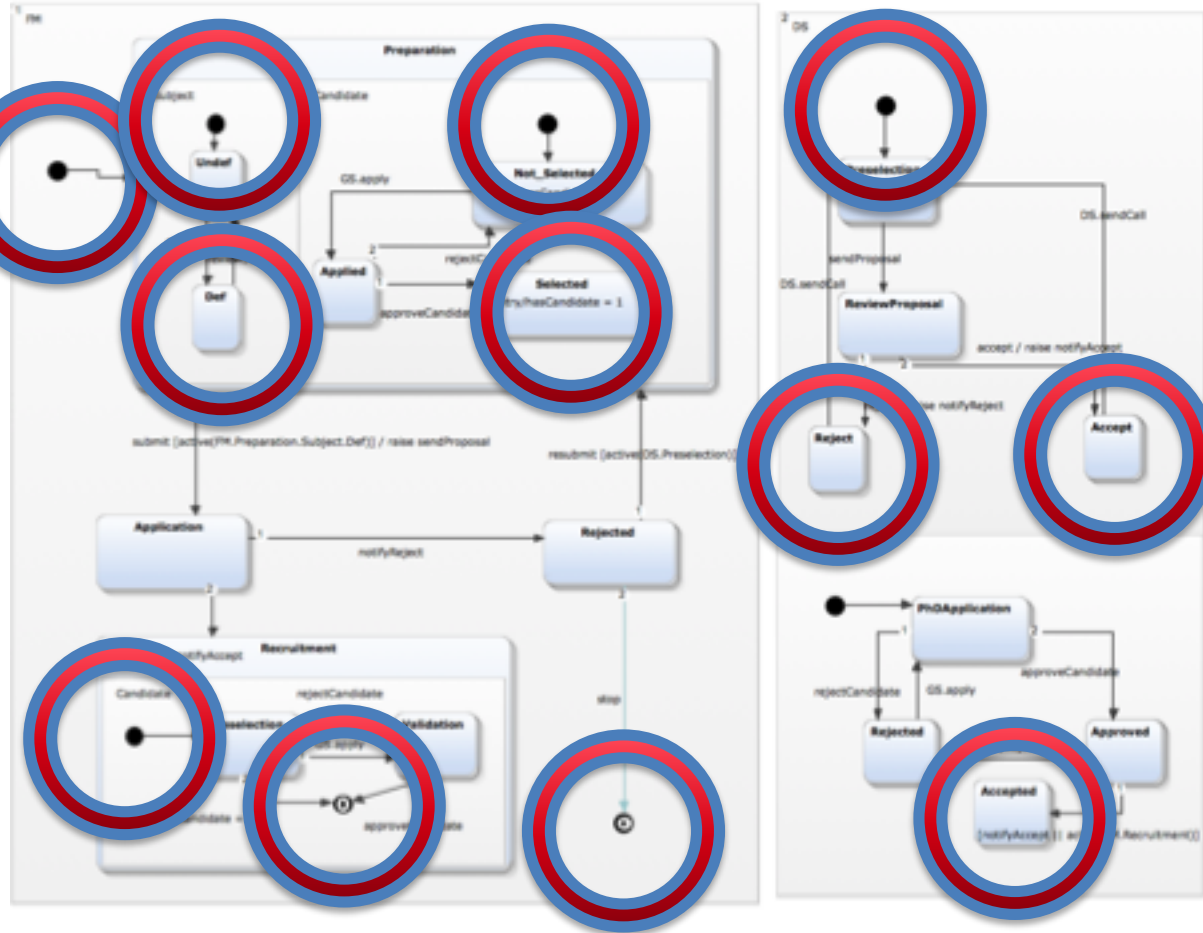
This essay has two goals. The first is to define the behavioristic study of natural events and to classify behavior. The second is to stress the importance of the concept of purpose.

Given any object, relatively abstracted from its surroundings for study, **the behavioristic approach consists in the examination of the output of the object and of the relations of this output to the input. By output is meant any change produced in the surroundings by the object. By input, conversely, is meant any event external to the object that modifies this object in any manner.**

Active behavior may be subdivided into two classes: purposeless (or random) and purposeful. The term purposeful is meant to denote that the act or behavior **may be interpreted as directed to the attainment of a goal—i.e., to a final condition in which the behaving object reaches a definite correlation in time or in space with respect to another object or event.** Purposeless behavior then is **that which is not interpreted** as directed to a goal.

Final state, goal, purpose

Finality is Everywhere



Source: Wikipedia

Two Worldviews

Cybernetics

- Final state
- Goal
- Purpose
- Objectives
- Change

Homeostasis

- Constancy
- Steady state
- Identity
- Maintenance
- Disturbances

Appreciation

Geoffrey Vickers

From Wikipedia, the free encyclopedia

Sir **Charles Geoffrey Vickers** VC (13 October 1894 - 16 March 1982) was an [English](#) lawyer, administrator, writer and pioneering [systems scientist](#). He had varied interests with roles at different times with the [London Passenger Transport Board](#), [Law Society](#), [Medical Research Council](#) and [Mental Health Research Fund](#).

He also had a distinguished military career, being awarded the [Victoria Cross](#) in World War I while serving in [The Sherwood Foresters \(The Nottinghamshire and Derbyshire Regiment\)](#), and in World War II he was Deputy Director General at the [Ministry of Economic Warfare](#), in charge of economic intelligence and member of the [Joint Intelligence Committee](#).

He was knighted in 1946. The [Sir Geoffrey Vickers Memorial Award](#) has been presented by the [International Society for the Systems Sciences](#) every year since 1987 in his memory.

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Biography

[\[edit\]](#)

Sir Charles Geoffrey Vickers	
13 October 1894 - 16 March 1982 (aged 87)	
 <div>Geoffrey Vickers in 1973</div>	
Place of birth	Nottingham, England
Place of death	Goring-on-Thames, Oxfordshire
Allegiance	 United Kingdom
Service/branch	 British Army
Rank	Colonel
Unit	The Sherwood Foresters
Battles/wars	World War I <div></div> World War II
Awards	 Victoria Cross <div></div> Croix de Guerre (Belgium)
Other work	Systems scientist

Regulation vs. Goals

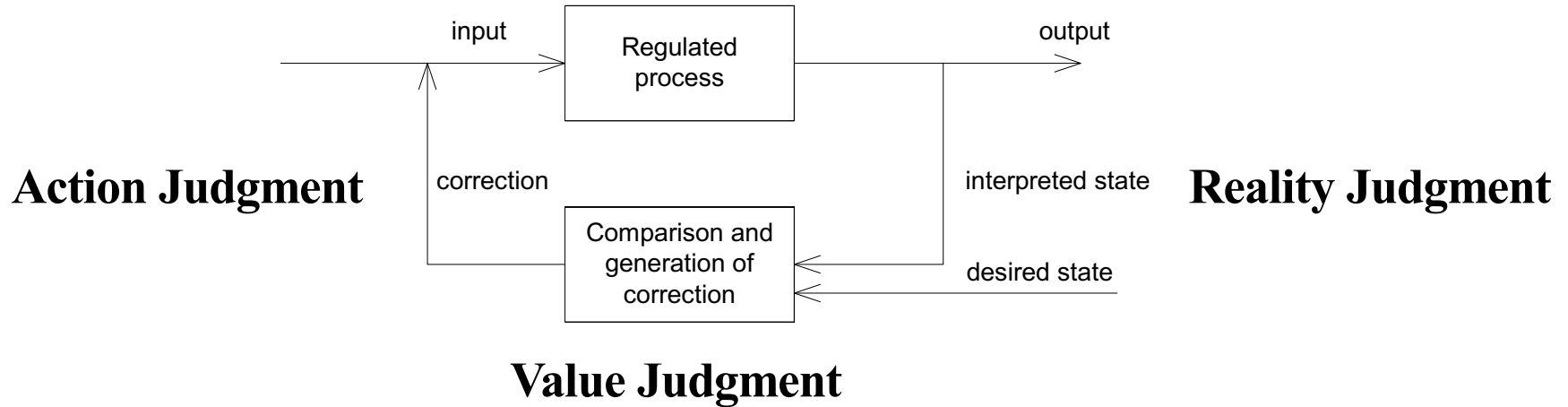
Stability vs. Change

Appreciative System

Source: Wikipedia

I do not accept the view that all norm-holding can be reduced to the pursuit of an endless succession of goals.

Vickers's Appreciative System

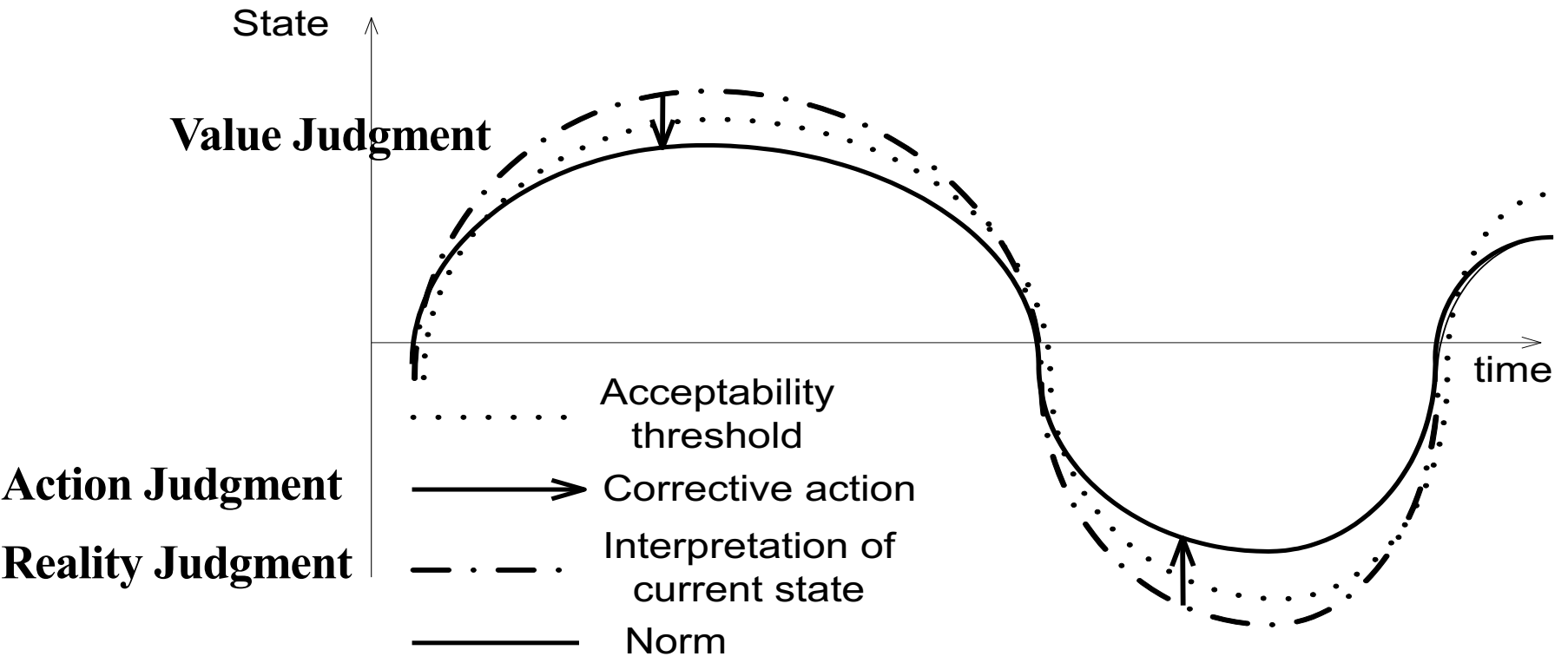


Readiness to See (Reality Judgment)

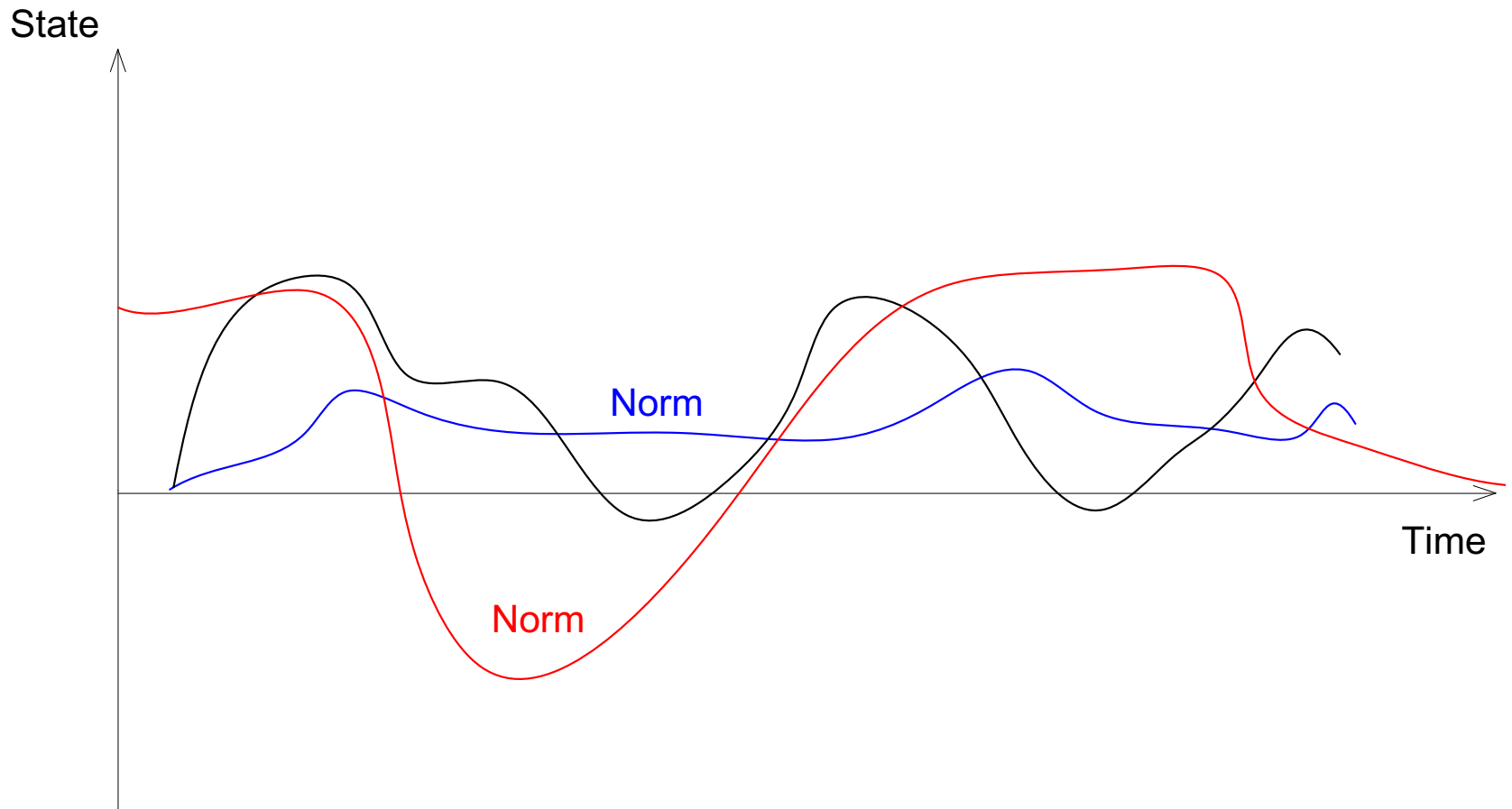
Readiness to Value (Value Judgment)

Readiness to Act (Action Judgment)

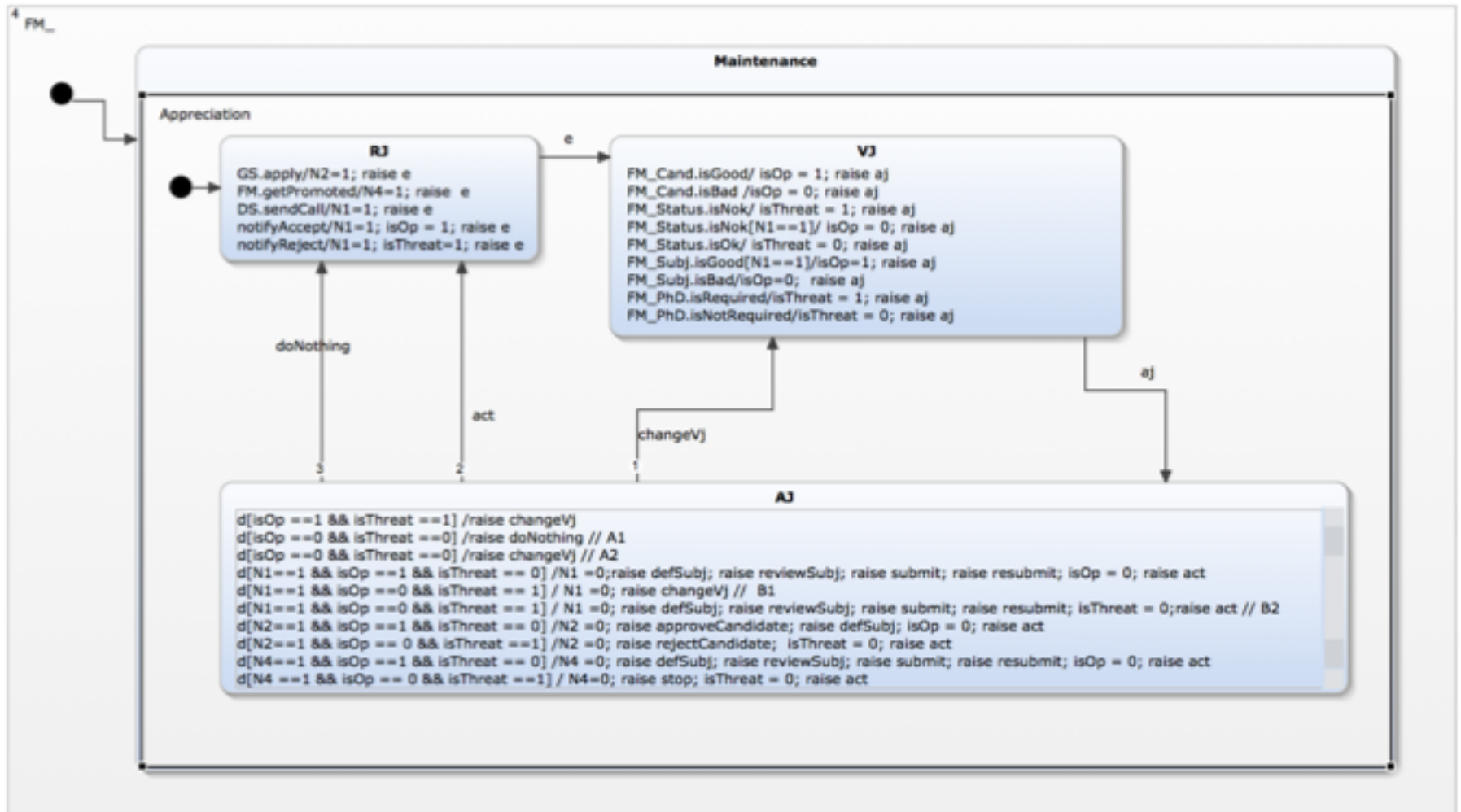
Norm Holding



Norm Holding



Appreciative Model



Preliminary Summary

- Continuity depends on regulation; stability, not change, requires explanation
Vickers, Sir, G., Policymaking, Communication, and Social Learning, 1987
- It can be done with statecharts and Yakindu