

THE HARD FACTS OF SOFT SOCIAL SYSTEMS: A GENERAL SYSTEMS EXPLANATORY MODEL FOR

SCHOOLS AND WORKPLACES

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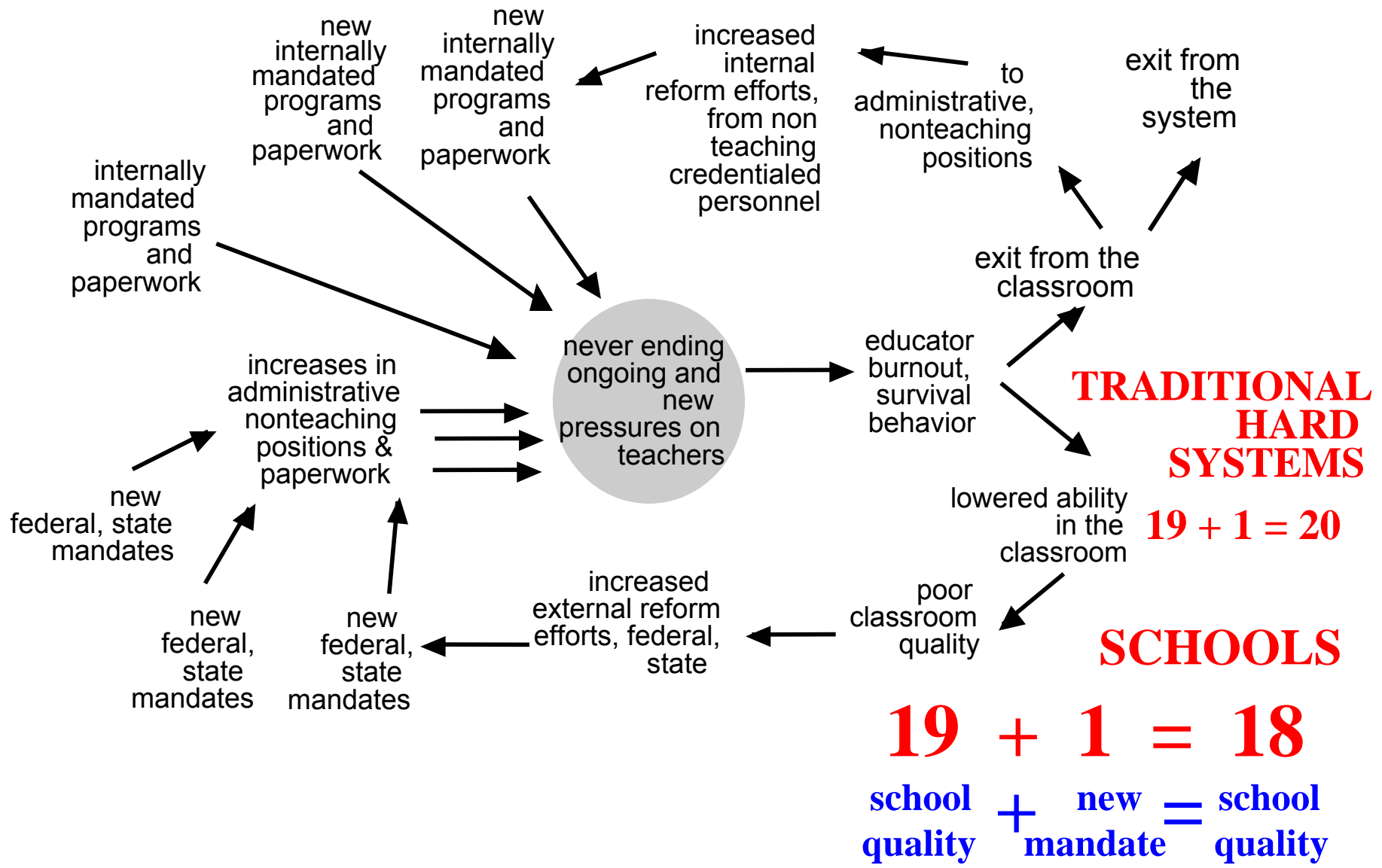
Science offers useful laws
and principles for
how *things* behave:
the *hard sciences*.

Science offers
conflicting
models for how
people behave:
the *soft sciences*



This paper identifies the *hard* facts of *soft* social systems: the laws and behaviors in a school, workplace, or social system in **three key parts**: **TPO** (to be revealed)

Cycle of Increasing Negative Outcomes



Paradigms: **Scientific (hard)** **Prescientific (soft)**

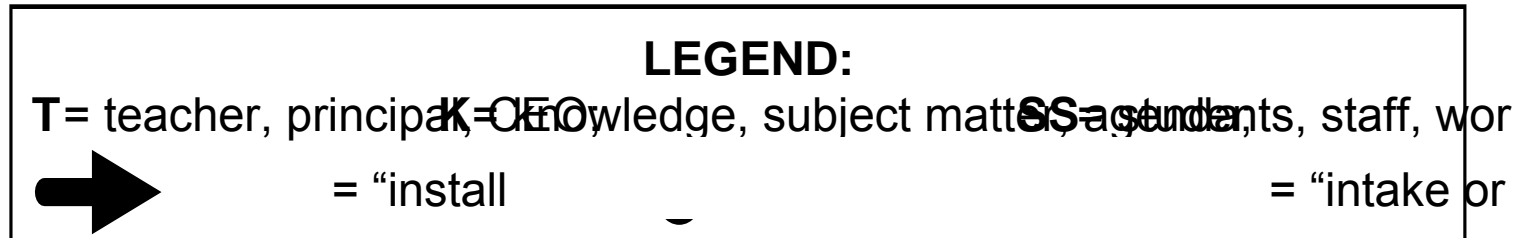
Old Paradigms

- The world is flat
- The sun revolves around the earth
- Some races are superior to others
- Men are superior to women
- Children should be seen and not heard (home)
- Children are empty vessels to fill (school)

New Paradigms

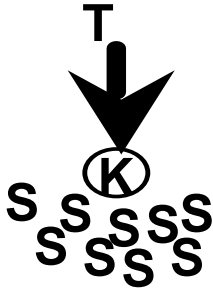
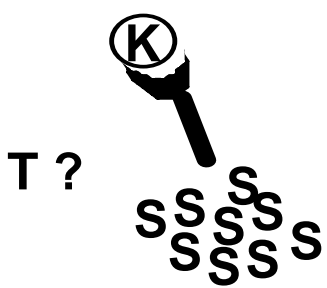
- The world is round
- The earth revolves around the sun
- No race is superior; diversity is valuable
- No gender is superior; diversity is valuable
- Children are active participants in the family
- Children are active participants in their learning

The Old and New Paradigms in Education and Management

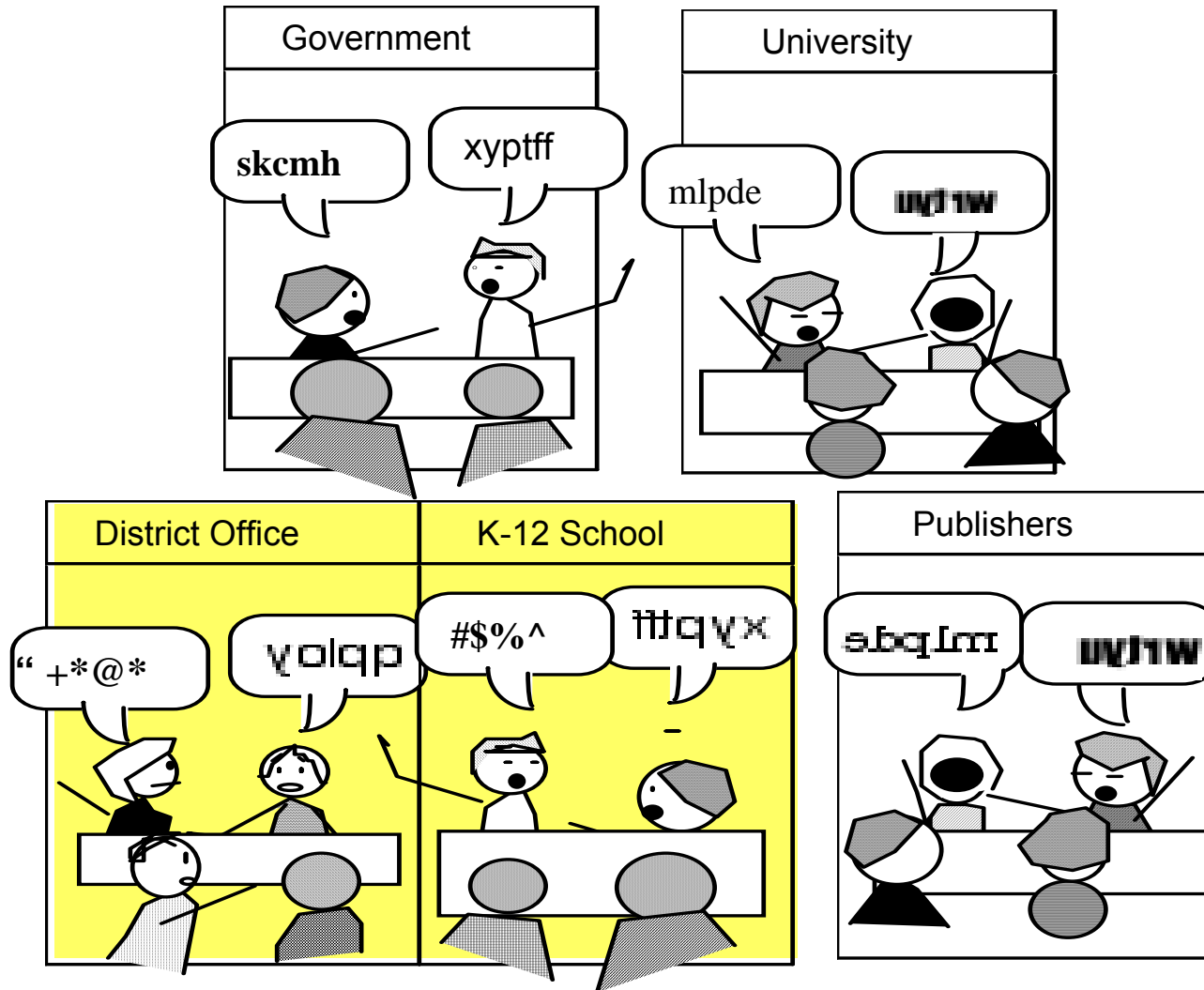


T installs K in SS.
Principal, CEO installs agenda
teachers, workers.
Old Paradigm

Top Down and Bottom Up as **Opposite Paradigms** in Management and Reading Theory

PARADIGM	MANAGEMENT THEORY	INSTRUCTION THEORY: READING
<p>Old Paradigm (out of favor)</p> 	<p>top down - the CEO (T) makes key decisions</p>	
<p>New Paradigm? (in favor)</p> 	<p>bottom up - the front line workers (SS) are involved in key decisions</p>	

Public Education Illustrated as The Tower of Babel



My Initial Findings as a Teacher Turned Detective

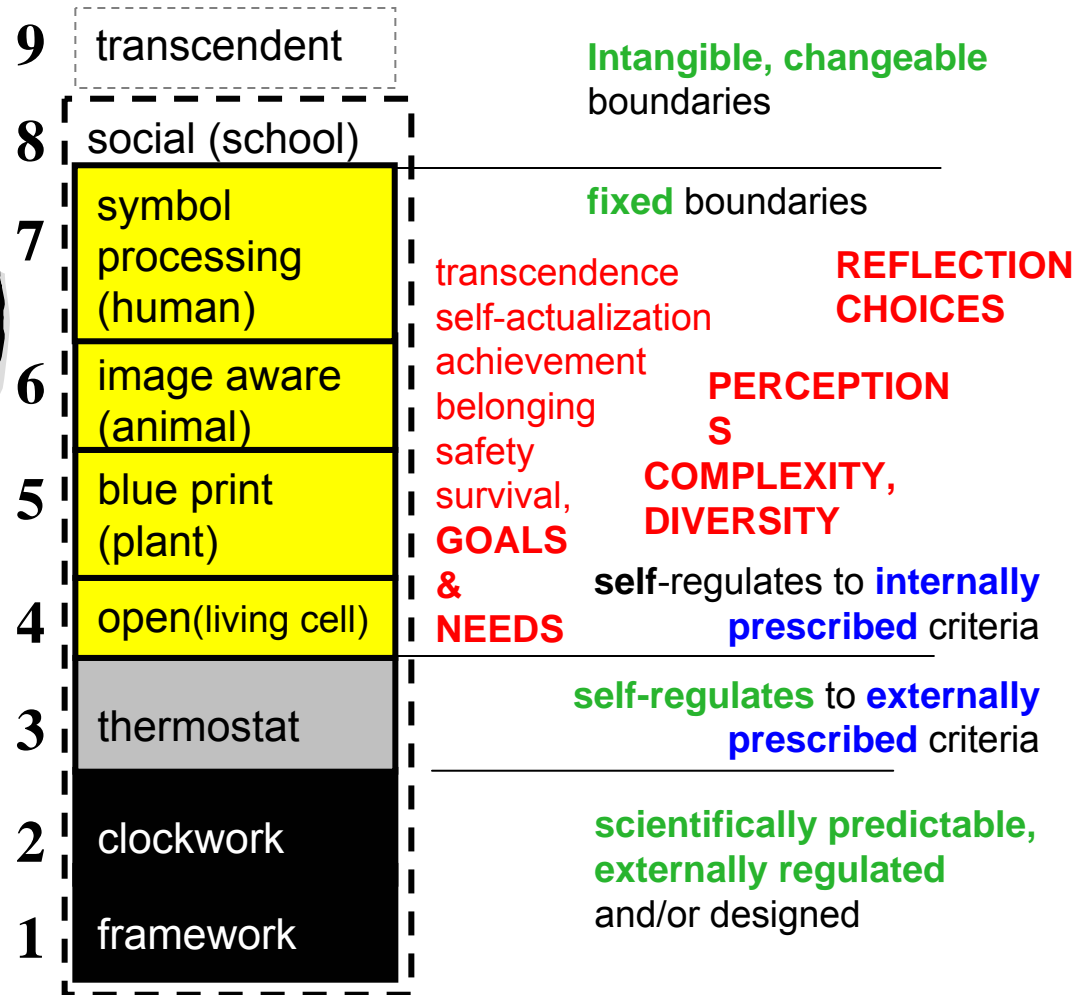
The Need:

A repeatable, verifiable, scientific paradigm to explain behavior in social systems in order to better understand and improve classrooms and meetings in schools, workplaces, communities, and so forth.

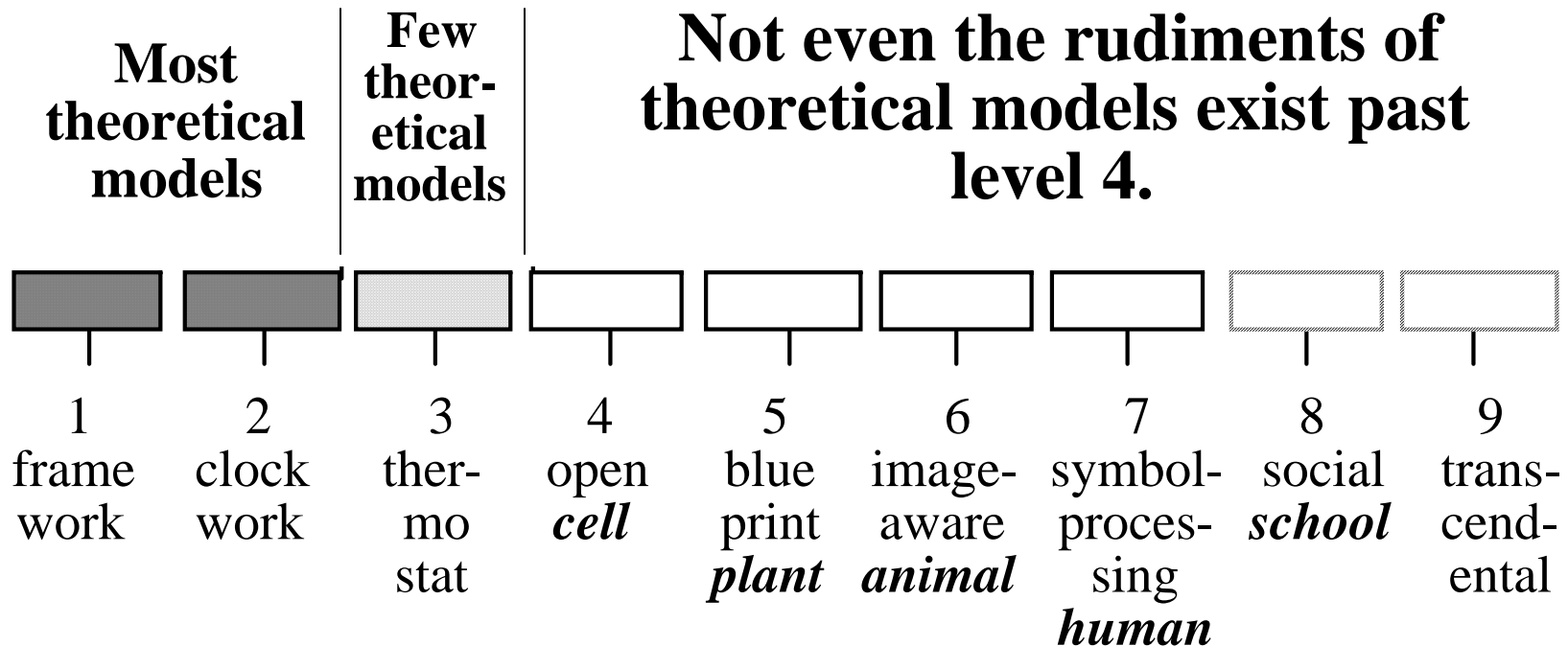
The Audience:

All school and social system decision makers: teachers, principals, superintendents, parents, students, theoreticians, researchers, lawmakers; CEOs, managers, employees; presidents, kings, citizens, and so forth.

Boulding's 9 System Levels To Explain School Behavior

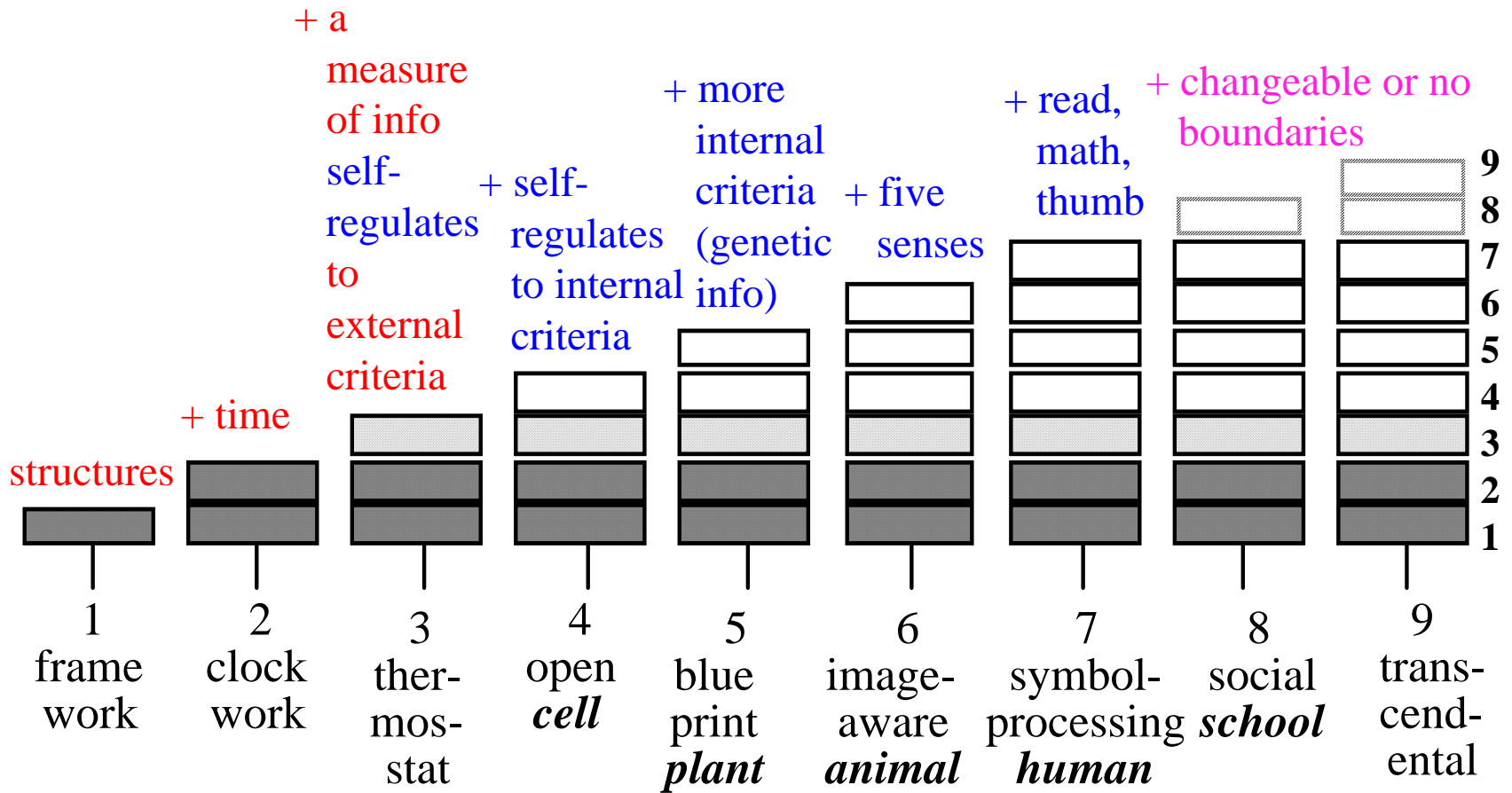


Boulding's 9 System Levels Linked to Organization Theory



This might be a top view of a theoretical representation

The Properties of Boulding's 9 System Types

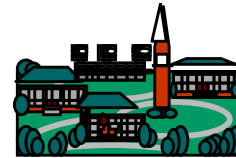
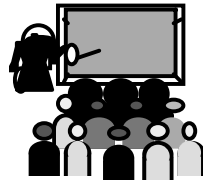
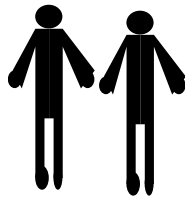
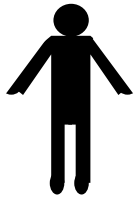


This might be a side view of a theoretical representation

Theoretical vs. Physical Representations

(p. 9, 10)

(p. 11)



Individual
level

Pair
level

Room
level

Building
level

Organization
or institution
level

World
level

(student,
teacher
or other
school
stake-
holder)

(student &
student;
student &
teacher;
student &
parent,
etc.)

(class-
room or
staff
meeting
room)

(school
building
or
district
office)

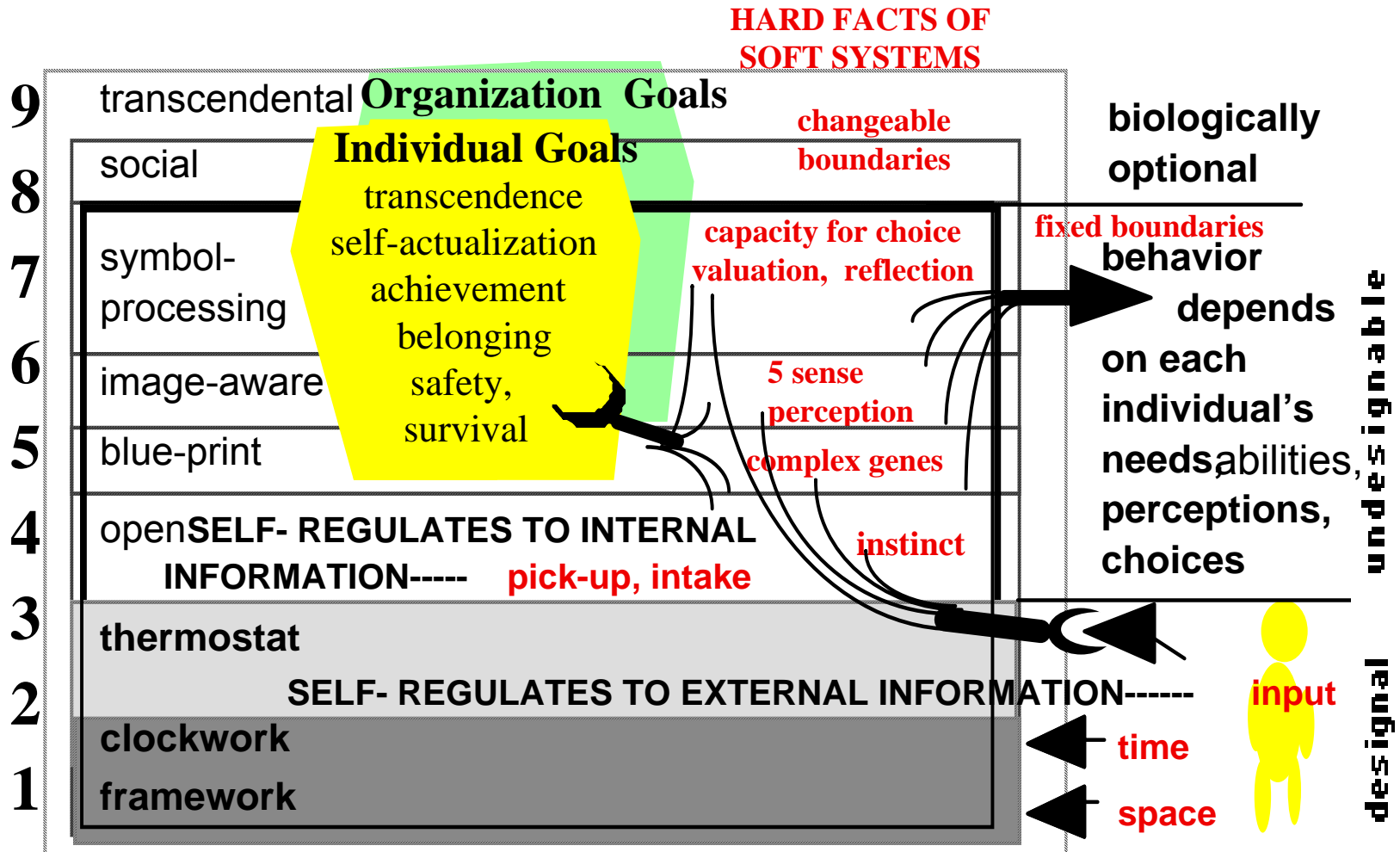
(school
&
environment)

(schools
and
education
in
the
modern
world)

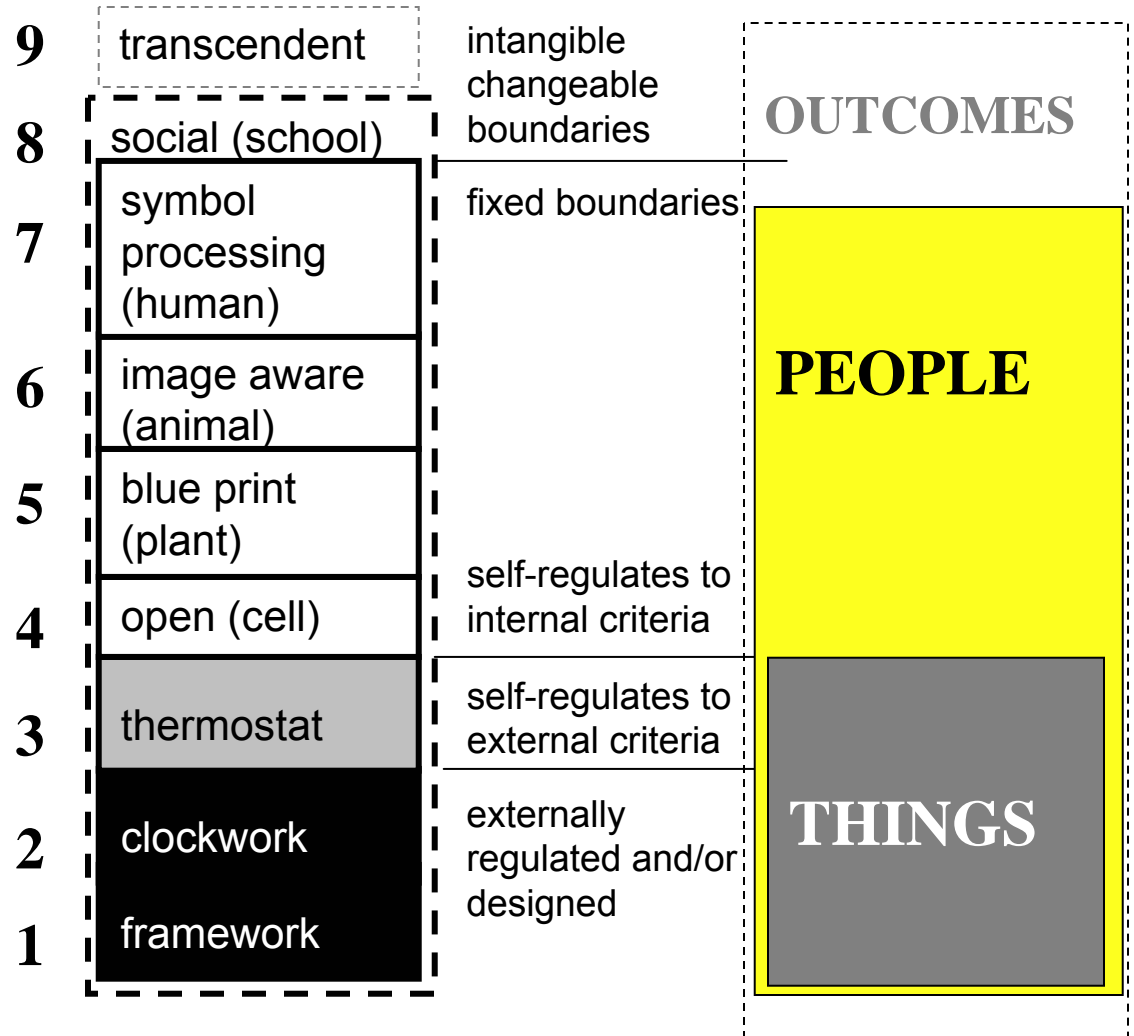
**(level 7
human)**

(<---level 8----- social systems----->)

The Power and Agency Within a Social System

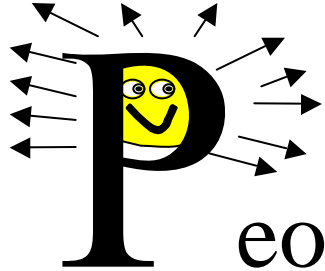


A Social System Theory for all School Decision-Makers



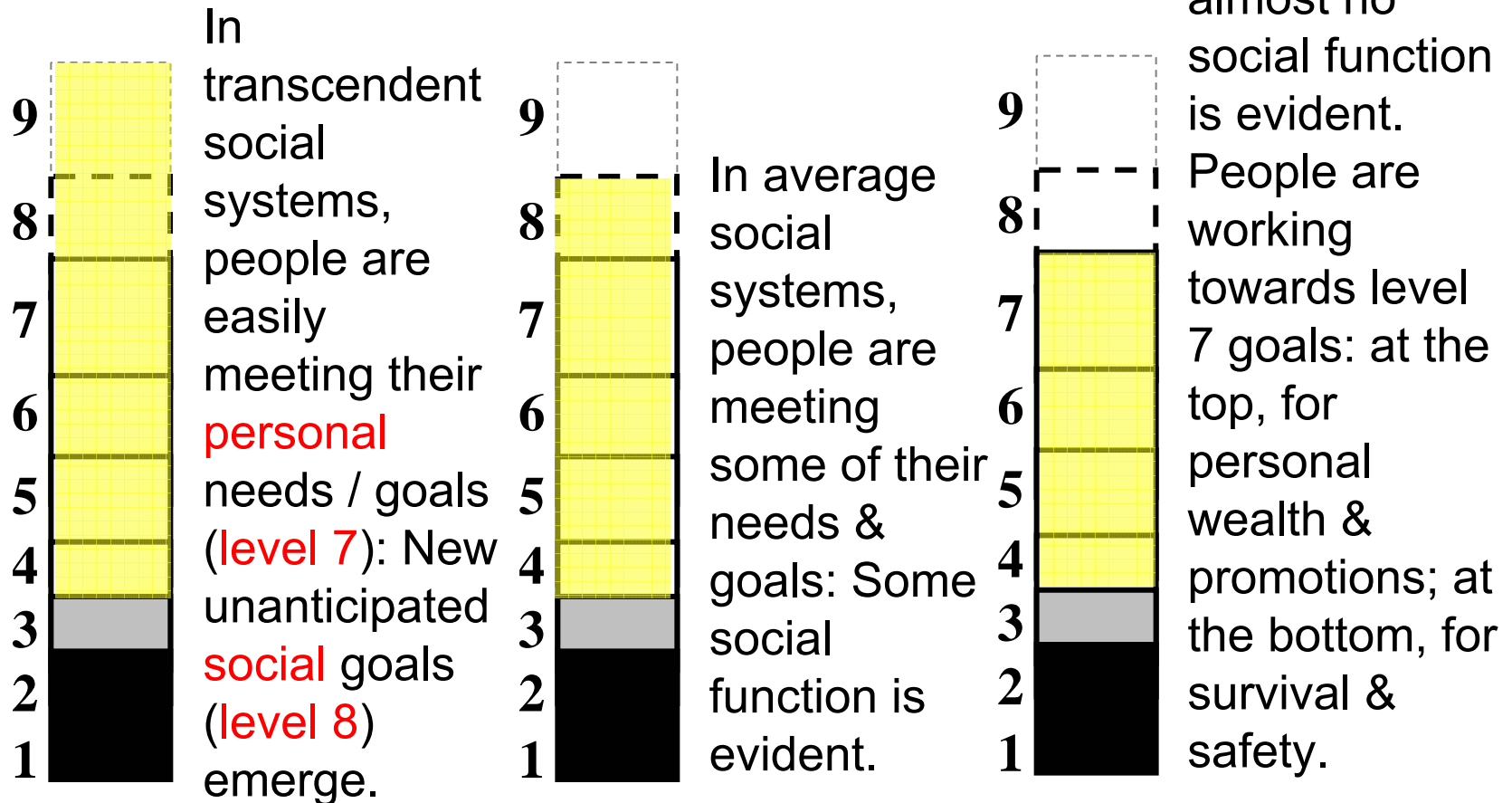
TPO Social System Theory for Everyone

Things

**P**eople

utcomes

A Close-Up of Outcomes



NEW SCIENTIFIC LAWS

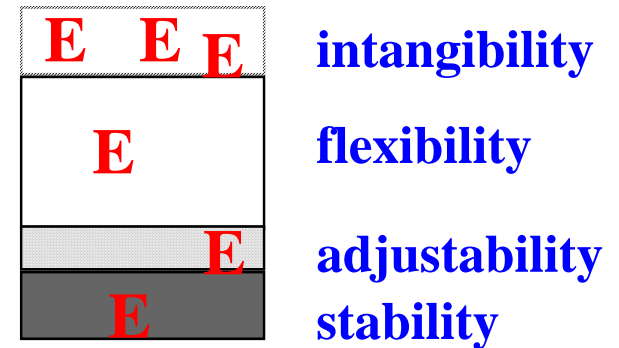
SOCIAL SYSTEM BEHAVIOR

In a social system such as a school or organization, the available resources or *THINGS* (levels 1-3) will be used by *PEOPLE* in the system to meet their own self-determined needs and goals (levels 4-7), according to their own individual interests and differences, whether inherent or developed (level 5), their own immediate perceptions from among conflicting stimuli (level 6) and their short or long term choices (level 7). It is a natural hard scientific fact (physics, not ethics) that *PEOPLE* must meet their individual needs (level 1-level 7) before the needs of the organization (levels 8-9) which determines *OUTCOMES*.

SOCIAL SYSTEM DESIGN

In a social system such as a school or other organization, *THINGS* (levels 1-3: resources, books, charts, buildings, schedules) must be designed and arranged so that *PEOPLE*, each at his/her own pace, can easily meet their self-determined **individual goals first (levels 4-7) and then their organization's goals for best *OUTCOMES* (levels 8-9).**

How People Might Use their Energy (E) in Four Paradigms of Social Systems



Boulding-Specifier
New Paradigm

TPO's Fit with Other Theory

School System Theory. McREL (McREL.org)

TPO = Technical, Personal and Organizational Domains, (from Cordell and Waters, 1993).

Socio-Technical Theory recognizes the interaction between people and technology in workplaces.

Socio (Personal and Organizational) -Technical (Technical)

Critical Systems Theory clarifies that decision-makers' viewpoints may not be simply plural, but coercive/conflicting. However, focusing on the imbalance in power may increase polarity. The TPO model avoids this issue by showing how to distribute resources, without illuminating the unequal distribution of resources.

5 Models of Activities for Large/Whole-Group Learning

LEGEND: L = Leader (teacher, meeting facilitator, employer);

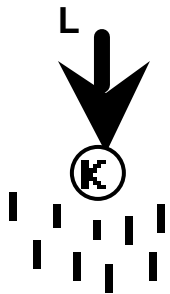
II = learners (students, employees);

K= knowledge, subject matter, opportunities for learning, classroom/work projects.

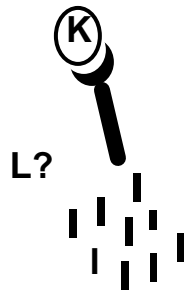
➔ = old paradigm instruction or new paradigm display;

New paradigm: —(= learning, pickup;

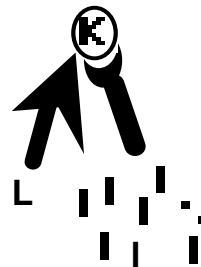
— = II; — = L



[A]
L
“installs”
K
in II.
**Old
Paradigm**



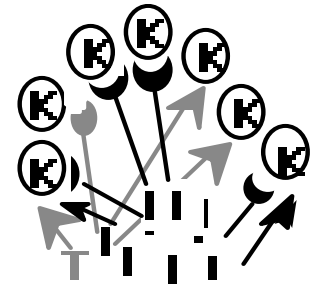
[B]
II direct their
own learning.
L’s role is
unclear.
**New
Paradigm?**



[C]
L displays K.
II pick up K
as ready.
**Boulding’s
social
system**



[D]
L designs, displays,
arranges, creates K in
multiple ways. II pick
up K as ready.
**Boulding
elaborated**



[E]
L is
learner too;
II take on
L roles.
**The
RoundTable**