

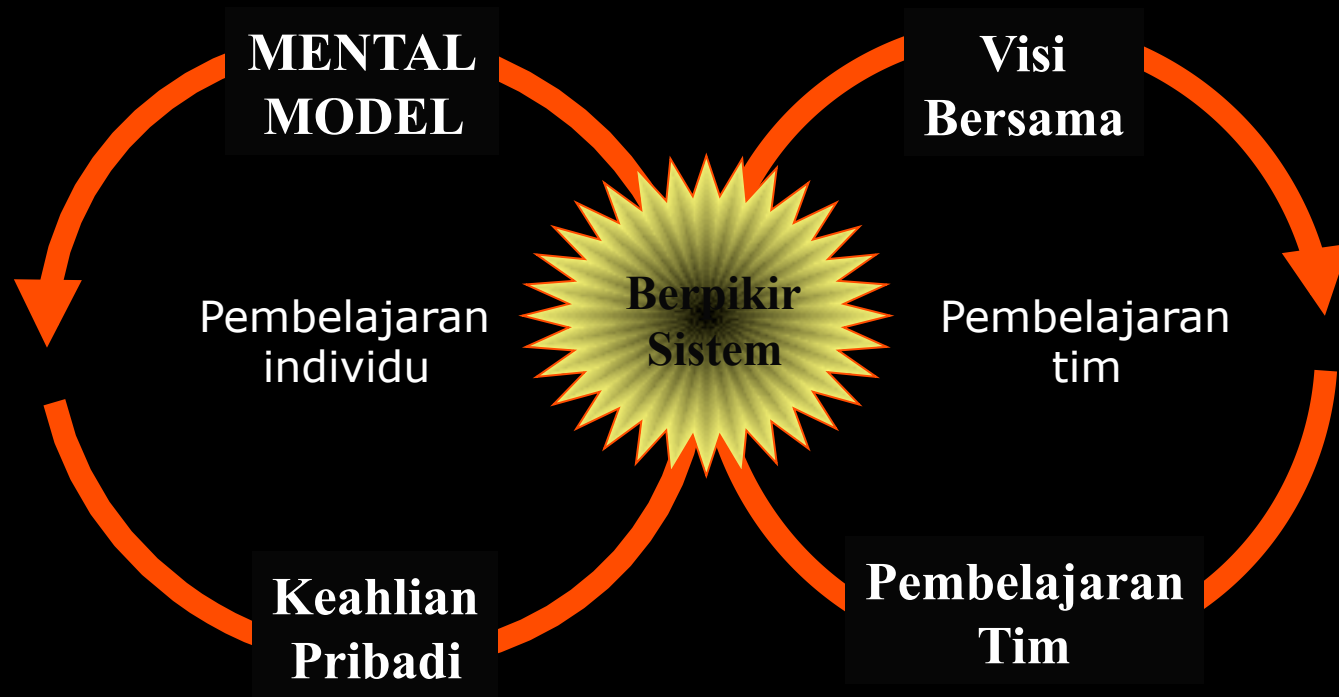
Berpikir Sistem



Motto

- ▣ Tidak ada salah dalam
 - bertanya,
 - berkomentar,
 - dalam berargumen
- ▣ Yang salah adalah kalau
 - tidak bertanya,
 - tidak berkomentar
 - tidak berargumen
- ▣ Silahkan tanya apa saja
 - Belum tentu saya bisa menjawab. Inilah diskusi kita

Learning through the fifth discipline



Tema Sistem

STRUCTURE

Influences

BEHAVIOR

Mengapa?

- ▣ Mengapa Orang Indonesia di Singapura menjadi disiplin? Mengapa orang Singapura di Batam spt kuda lepas kendali?
- ▣ Mengapa penyakit diare/ ispa/ DHF tetap ada?
- ▣ Mengapa Biaya Pelayanan Kesehatan meningkat cepat dibanding inflasi?
- ▣ Mengapa korupsi, meskipun ada KPK, tetap merajalela?
- ▣ Mengapa.....

Melihat seluruh persoalan



Melihat seluruh sistem



Organizational Systems

- ▣ All human organizations function as systems:
 - Households and communities
 - Non-profit organizations
 - Commercial organizations
 - Bureaucracies, etc., etc.
- ▣ These organizations are often characterized by recurring symptoms of dysfunction that Senge has identified as “Laws of the Fifth Discipline”

“The Laws of the Fifth Discipline”

Senge, Chapter 4

1. Today's problems come from yesterday's solutions.

E.g. medical specialty education

2. The harder you push, the harder the system pushes you back.

E.g. coercive family planning in China

3. Behavior grows better before it gets worse.

E.g. project success but program failure

“The Laws of the Fifth Discipline”

Senge, Chapter 4

4. The easy way out usually leads back in.

E.g. cash incentive schemes

5. The cure can be worse than the disease (shifting the burden).

E.g. welfare programs or donor dependency

6. Faster is slower.

E.g. Over ambitious bureaucrats

“The Laws of the Fifth Discipline”

Senge, Chapter 4

7. Cause and effect are not closely related in time and space.

E.g. Educating women for development

8. Small changes can produce big results - but the areas of highest leverage are often the least obvious.

E.g. Removing medical barriers to contraceptive access

“The Laws of the Fifth Discipline”

Senge, Chapter 4

9. You can have your cake and eat it too - but not at once.

E.g. Improving service quality is cost effective

10. Dividing an elephant in half does not produce two small elephants.

E.g. Helping mothers to plan their families but not their pregnancies

Hukum Disiplin Kelima

11. *There is no Blame !!*

- Jika kita berpikir sistem, maka **tidak ada orang luar**
- **Anda** dan **masalah anda** adalah bagian dari sistem itu (Peter Senge, The Fifth Discipline, p. 67)
- Contoh:
 - Anda dan global warming
 - Merokok adalah hak pribadi ?

Systems Thinking

- ▣ The “Fifth Discipline” - a discipline for seeing things whole.
- ▣ “Systems thinking is a ... body of knowledge and tools that has been developed ... to make full patterns clearer and to help us see how to change them effectively.”

Peter Senge: *The Fifth Discipline*, p7

Systems Thinking

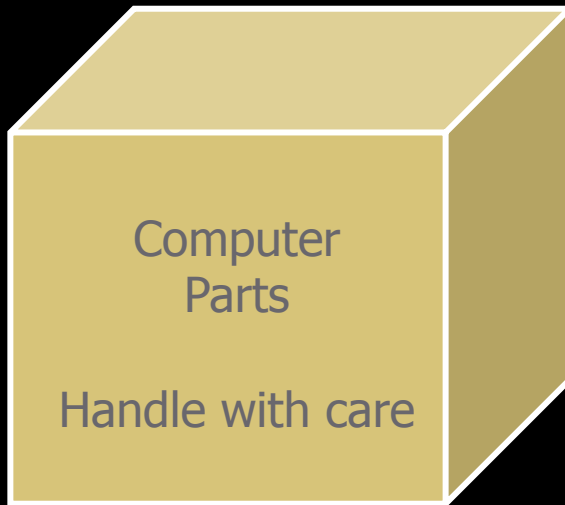
Systems *thinking*:

- ▣ looks at the whole,
- ▣ and the parts,
- ▣ and *the connections between the parts*
- ▣ studying the whole in order to understand the parts

Non-Systems Thinking

- ▣ *Reductionism*, which is the usual scientific (technical, managerial) approach, looks at the parts in order to try to understand the whole.

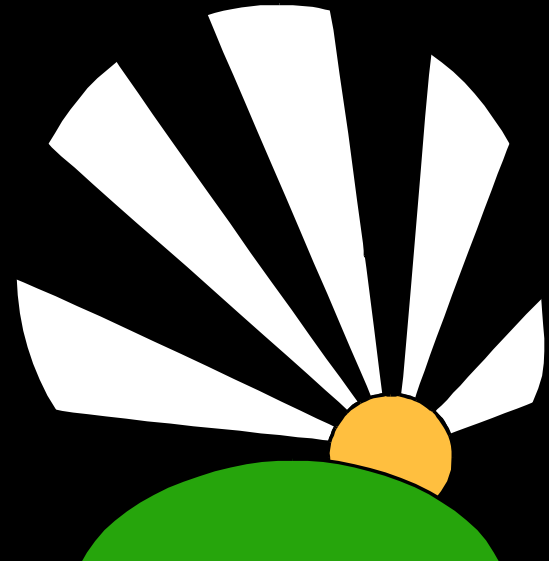
Which is a System, and Why?



Connections and feedback are key!

But what parts and connections are still missing from this picture?

MENGUBAH CARA BERPIKIR

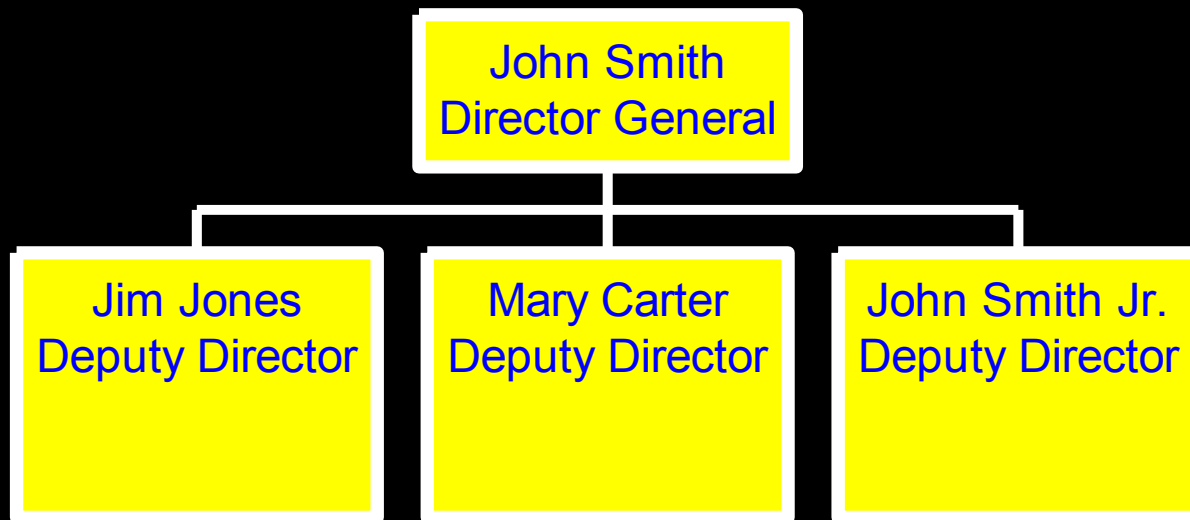


DYNAMIC



System Complexity

DYNAMIC

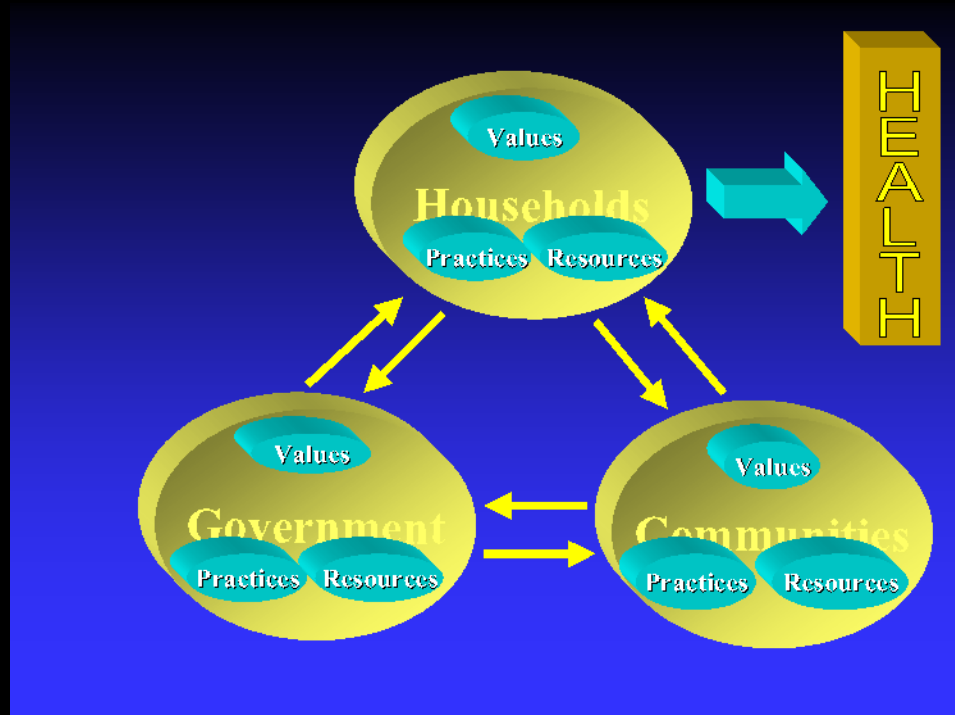


System Complexity

- ▣ A human organization has dynamic complexity because shifting one relationship not only affects all other relationships, but also because the character of individuals may change as well.
- ▣ This can affect morale, an emergent property of the organization.

System Complexity

DYNAMIC



System Complexity

DYNAMIC

▣ Some important features:

- Very complex systems are often very stable and resistant to change – *IS THIS GOOD OR BAD?*
- When changes do occur, however these can often be very sudden and dramatic

System Complexity

DYNAMIC

- ▣ Some important features: (continued)
 - Change may be easy if you know where to intervene, i.e., to apply *leverage*

System Complexity

DYNAMIC

- ▣ Some important features: (continued)
 - In human organizations, often the best leverage points are the mental models supporting the system.

Reflect, Discuss, Synthesize

- ▣ Mental Models Supporting Social Systems:
 - Household - Men should make all the decisions in the family; women's main roles in life are obedience, childbearing and child rearing
 - Organizational – Doctors should make all the decisions in the health care system; the role of others is to comply and implement these decisions.
- ▣ What might be some strategies to promote (leverage) health? Will these require material or non-material interventions?

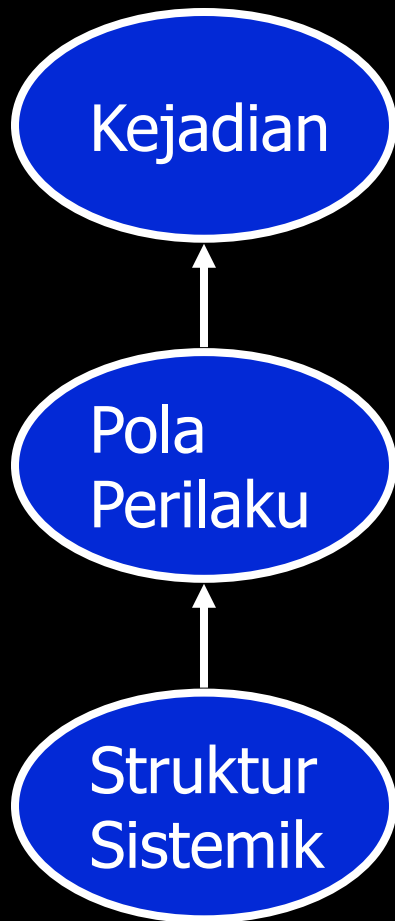
Bagaimana melawan sistem?

The World will not evolve past its current state of crisis by using the same thinking that created the situation."

Albert Einstein

Do you understand his words?

Lihat Struktur, Bukan Perilaku

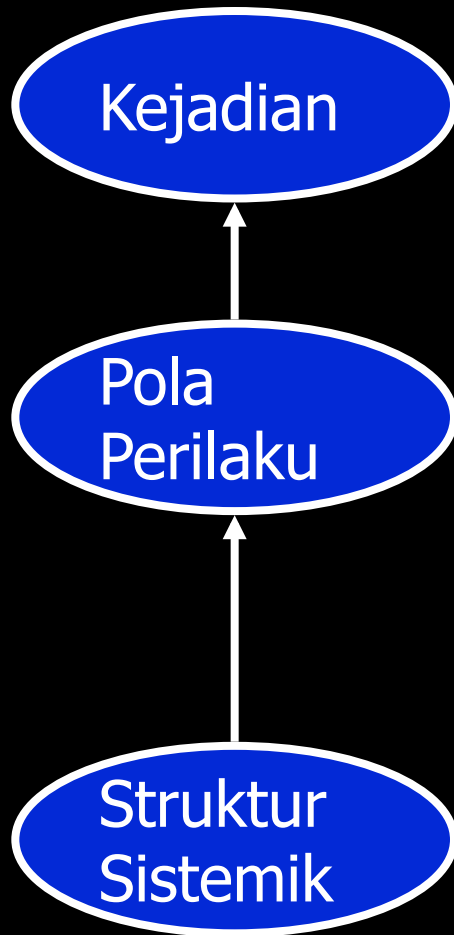


Reaktif – *perilaku*: Siapa melakukan apa kepada siapa dan mengapa?

Responsif – *Perilaku jangka panjang*: apa pola dari kejadian itu dalam jangka panjang ?

Generatif – Melihat *struktur sistemik*: apa penyebab dasar dari pola dan kecenderungan itu?

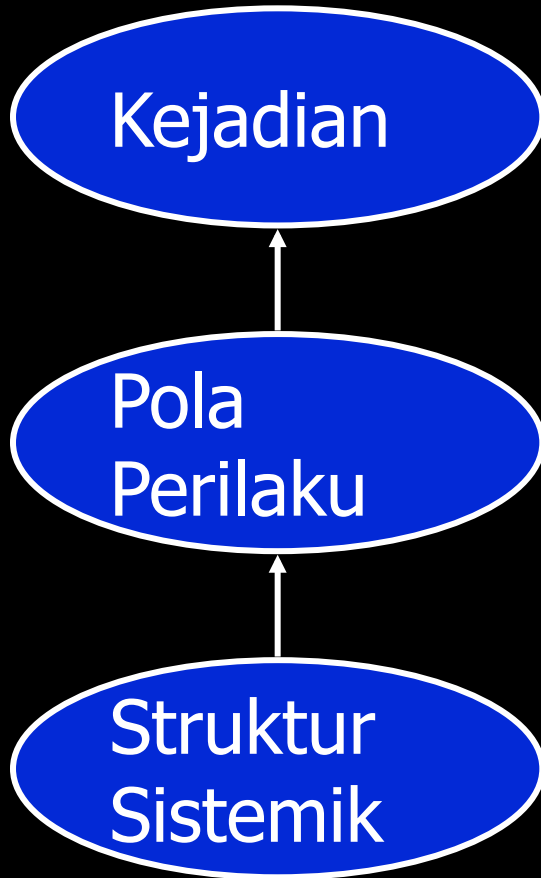
Perkelahian Anak Sekolah



Apa kejadiannya? –siapa berkelahi? Dengan siapa?

Bagaimana polanya? – Dalam 1 tahun terakhir berapa kali terjadi?, umumnya terjadi kapan? Bagaimana prosesnya

Apa struktur sistemik yang melatar belakangnya? – Mengapa sekarang mereka mudah berkelahi? Perubahan struktur demografi, sosial, ekonomi apakah yang menyebabkannya?



Deskripsikan masalahnya (cerita)

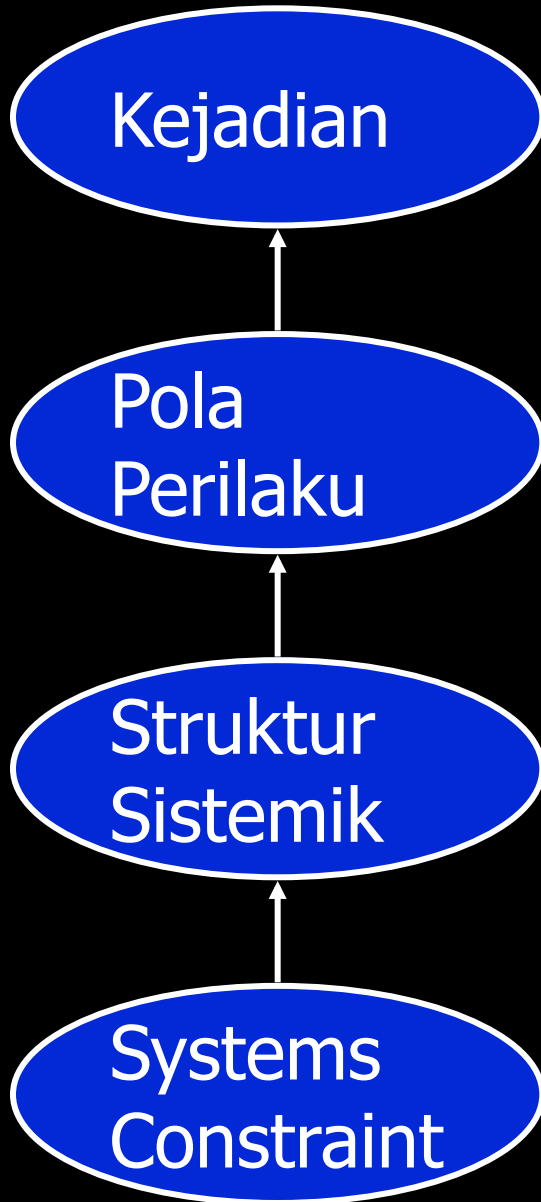
- Kenali variabel yang berperan

Lihat polanya

- Ambil 4-5 variabel utama
- Lihat dalam waktu yang panjang
- Adanya penguatan, keseimbangan, penundaan

Cari archetypenya

- Pola dasar mana yang paling cocok untuk masalahnya

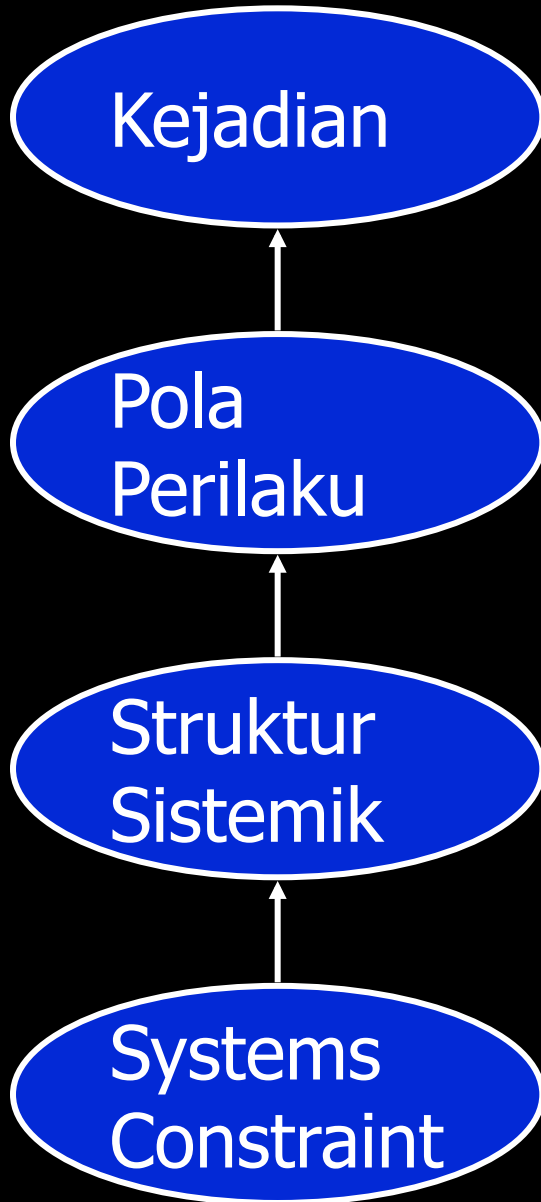


Reaktif – *perilaku*: Siapa demo?
Tangkap dan adili sesuai hukum

Responsif – brp kali demo tahun ini? Siapa saja, kapan saja, dimana saja?

Struktur – sub sistem mana saja yang terlibat, bagaimana rangkaian interaksinya

Generatif – apa nilai2 yang mereka perjuangkan? Apa paradigm yang mereka pakai/ apa akar masalahnya?



Reaktif – siapa diare? Beri terapi yang sesuai: infus,

Responsif – brp kali diare tahun ini? Siapa saja, kapan saja, dimana saja?

Struktur – sub sistem mana saja yang menyebabkan diare, bagaimana rangkaian interaksinya

Generatif – mengapa terus menerus diare? Apa paradigm yang mereka pakai/ apa akar masalahnya?

Refleksi

- ▣ No institution can possibly survive if it needs geniuses or supermen to manage it. It must be organized in such a way as to be able to get along under a leadership composed of average human beings.
- ▣ — Peter Drucker

Melihat bawah gunung es



Leverage

- ▣ To find the leverage point to change the system, you need to have a true/complete understanding of the system.
- ▣ The leverage point will be in the balancing loop (that promotes stability) not in the reinforcing loop (that promotes change).

Leverage The Mental Models

- ▣ Often the best leverage points are the *mental models supporting the status quo* in the social system;
- ▣ Changing the mental models requires non-material resources.

The last Law

- ▣ There is NO blame !

- “Systems thinking shows us that *there is no outside*; you and the cause of your problems are part of a single system.”

- ▣ Peter Senge, The Fifth Discipline, p. 67

STRUCTURE

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