

# RDS: RELATIONSHIP-DISTINCTION-SYSTEM

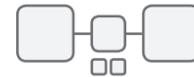
## Two simple steps to dramatically improve your thinking.

### 1. Realize that any two or more things can be related

Identifying the relationships between things is really important. A relationship can be physical and tangible (such as a cord is the relationship between my laptop and electricity), or physical but somewhat invisible (the relationship between a magnet and iron particles), or conceptual (the relationship between war and peace).



A relationship between two things



A Relationship Distinction System (RDS)

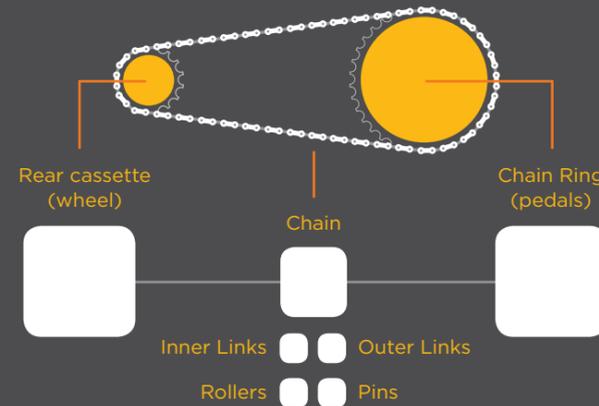
### 2. Make the relationship a distinction (identify what it is), and then identify the parts of the relationship that compose a system.

Whenever you draw a relational line between one thing and another, be sure to “zoom” into that line and ask yourself, “how would I distinguish that relationship? (add a square to the line) and identify the parts of a system to make your thinking even more robust. The process is called Relationship-Distinction-System or RDS.

Reprinted with permission. Cabrera, D. & Cabrera, L. (2015) Systems Thinking Made Simple: New Hope for Solving Wicked Problems. Odyssean. Ithaca, NY.

## RDS example 1

### Bicycle Drive Train



## RDS example 2

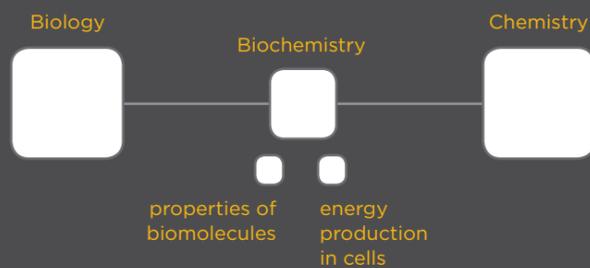
### The Earth, the Moon, & the Ocean Tides



## RDS example 3

### Biology, Chemistry, & Biochemistry

Is RDS an algorithm for interdisciplinary innovation? Emerging in the 1800s as a new scientific discipline, the relationship that formed between biology and chemistry is today its own distinct discipline (biochemistry) with its own distinct practitioners (biochemists), departments and degree programs, journals, conferences and associations (Biochemical Society). All of this emerged from a single RDS.



There are over 20,000 disciplines, fields and subfields in science. Like the Biochemistry RDS, any number of those disciplines could be combined to form a new field. In fact, many of the most innovative fields today are being born (bio-physics, econo-metrics, geo-physics, bio-technology, interaction design, etc.) as the result of an RDS.

## RDS example 4

### The World's Coffee Industry

For drinking one standard cup of coffee...we need about 140 litres of water, by far the largest part for growing the coffee plant. A standard cup of coffee is 125 ml, which means that we need more than 1100 drops of water for producing one drop of coffee.

UNESCO-IHE Institute for Water Education (2003) The Water Needed to have the Dutch Drink Coffee. A.K.Chapagain, A.Y.Hoekstra.

