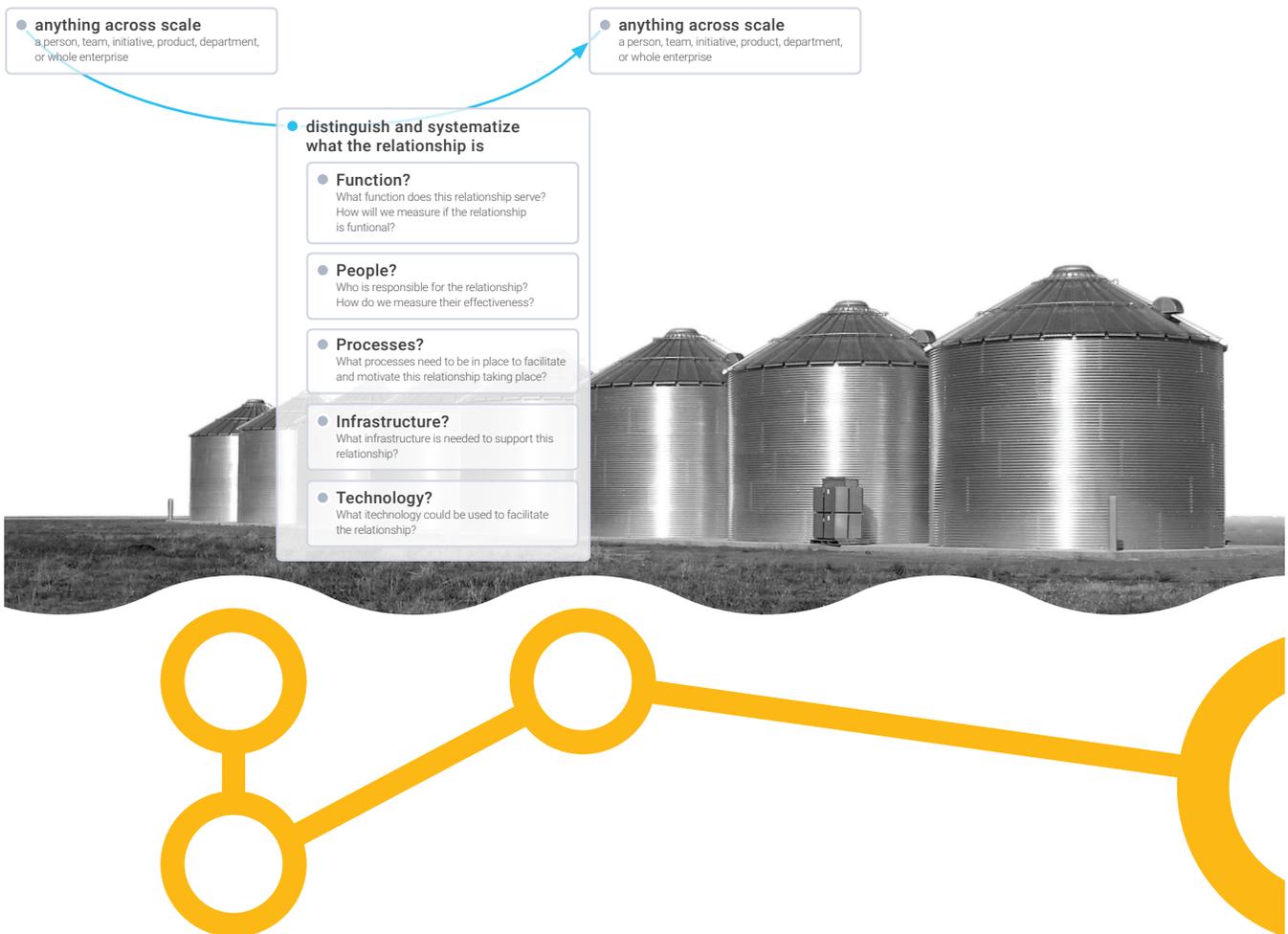
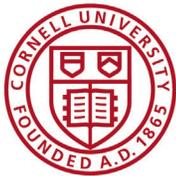




CONNECTING SILOS

Solving the problem of organizational silos using a simple systems thinking approach





Organizational silos lead to a range of harmful results from decreased employee engagement, and therefore, reduce organizational effectiveness.

Silos are the result of a naturally-forming need to distinguish between systems and their functions. How can organizations benefit from the need to divide tasks, employees, workflows, and functions to create manageable boundaries without succumbing to the negative effects of silos? How can organizations both differentiate and integrate different people, teams, initiatives, products, departments, divisions, and even enterprises to accomplish better workflows and better results? How can organizations inoculate themselves against silofication? Once a professional mountain guide, Dr. Derek Cabrera went on to study cognitive science, evolutionary biology, and systems science. His research cuts through the complexity of organizational design, leadership, and change provide organizational leaders with insight into systems thinking, systems leadership, and systems modelling, the topic of their research and their semester-long courses at Cornell University. Dr. Laura Cabrera, trained as a research translator, makes these powerful theories and formulas come to life in pragmatic tools, technologies, and frameworks that can be deployed for profound, immediate impact. This white paper offers a brief review of just one framework (RDS) of the Cabrerás' work with organizations of varied sizes and industries.

Worlds apart

They all work with their heads down between these five different places—they don't even think to look up from their silos.

—Fortune 100 Executive

A silo (etymology: Greek *σίρος* – *siros*, "pit for holding grain") is a structure designed to hold supplies such as grain or coal. In organizations, the term silo has negative connotations in which people, teams, initiatives, projects, products, whole departments or divisions, or even enterprises, are separated from each other, sometimes at great costs to organizational effectiveness and results.

In organizations, we create divisions and/or departments in order to break things down into smaller, more manageable chunks. Breaking things down in this way naturally creates boundaries which may or may not become silos. We create a boundary between sales and marketing in order to distinguish between their different functions. A boundary (whether for a small team or project or a large department or division) makes things easier to manage, the internal purpose more clear, and the internal finances remain discrete. Thus boundaries, in and of themselves, are valuable and necessary but this does not mean that divisions or departments need to become siloed. The point is that the presence of these boundaries is not what creates silos, but instead, it is the absence of relationships between and among functional areas that create silos.

The goal then is not to abolish the function of boundaries but to establish boundaries in such a way as to prevent them from become impermeable, impenetrable, or siloed. The solution is simple: the antidote to silos is *relationships*. There is a simple and scalable algorithm for decreasing silo-fication in your organization that involves four steps; (for which we use the acronym RDS):

R: Conceptualize a relationship

D: Distinguish (name) the relationship

S: Systematize the relationship

Fractal and Scaleable

This simple RDS algorithm can be used across scale fractally because the same simple steps can be applied across multiple levels of an organization. For example, you may be experiencing silos between; individual people on a single team, several teams, initiatives or product offerings, whole departments or divisions, or even independent enterprises in a conglomerate. Note that in the table below, each of the solutions are the same but the agents involved are different.



PROBLEM	SOLUTION
Individual people on a single team are siloed	RDS the <i>people</i>
Individual teams that need to work together are siloed	RDS the <i>teams</i>
A family of products and services are siloed	RDS the <i>products</i>
Separate initiatives within a department are siloed	RDS the <i>initiatives</i>
Functional departments within a division are siloed	RDS the <i>departments</i>
Separate divisions within an enterprise are siloed	RDS the <i>divisions</i>
Several enterprises belonging to a partnership are siloed	RDS the <i>enterprises</i>

Table 1: The RDS algorithm can be applied across scale

The Power of RDS

This RDS algorithm (born of the DSRP rules of systems thinking) is a simple and powerful way to conceptualize the relationships between anything. But, in the case of silos, we are often concerned with individuals, teams,

products, initiatives, departments, divisions, or enterprises. Let's take a look at how using systems thinking (DSRP) can give us a simple solution for reducing silos in our organization. Let's look at what we mean by an RDS (relationship-distinction-system).

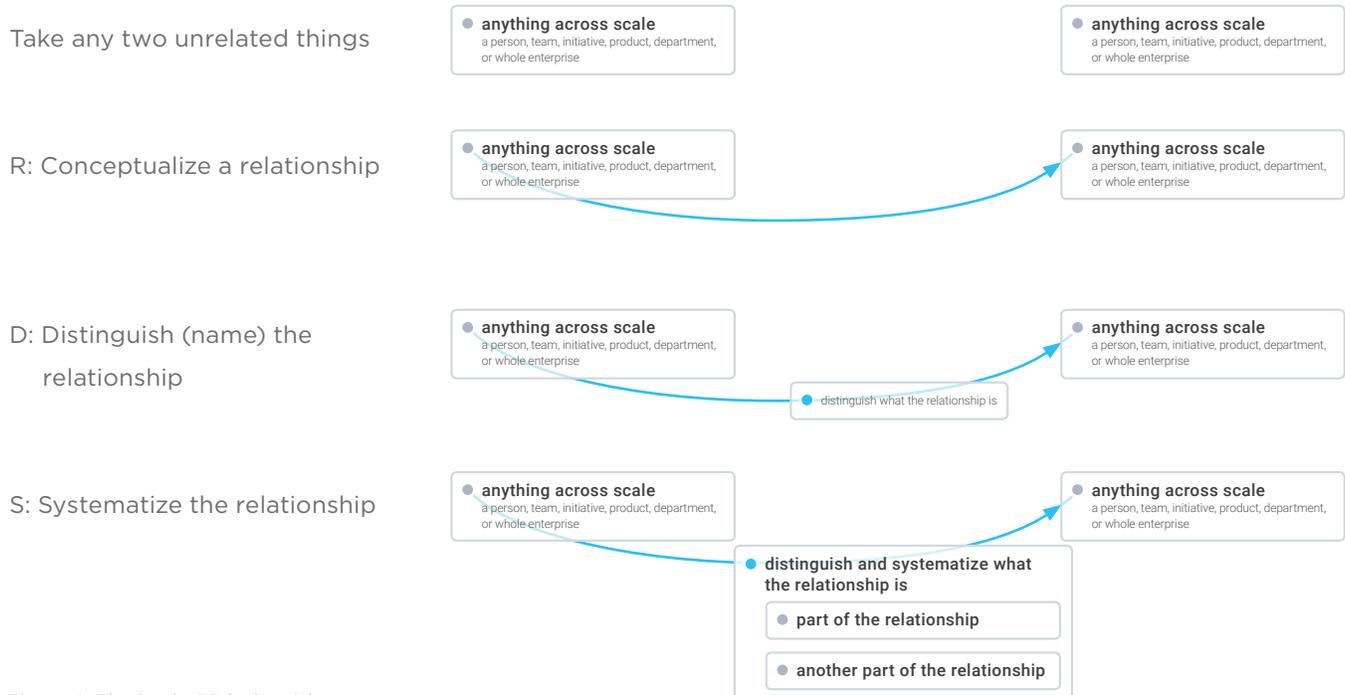
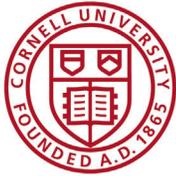


Figure 1: The basic RDS algorithm



Research in systems thinking and cognition shows that using RDSs increases metacognition (awareness) of the structural nature of relationships and in turn increases individual ability to align mental models with their real-world counterparts.

Systematizing a Relationship

The RDS must not remain conceptual but be formalized as a concrete system. This means allocating people, resources, or processes to be responsible for building, maintaining and evolving the relationships between functions, and also by allocating budgets and FTE (full time equivalents) to that effort. It might mean that the relationship between two divisions is a department, in and of itself, responsible for ensuring and providing the “connective tissue” between one division and another. This could be as simple as setting up weekly or bi-weekly check-ins, and meetings. *How* the relationship occurs is less important than *that* it occurs. When you think in terms of relating functional areas and avoiding silos, think in terms of function, people, processes, infrastructure, and technology (Figure 2).

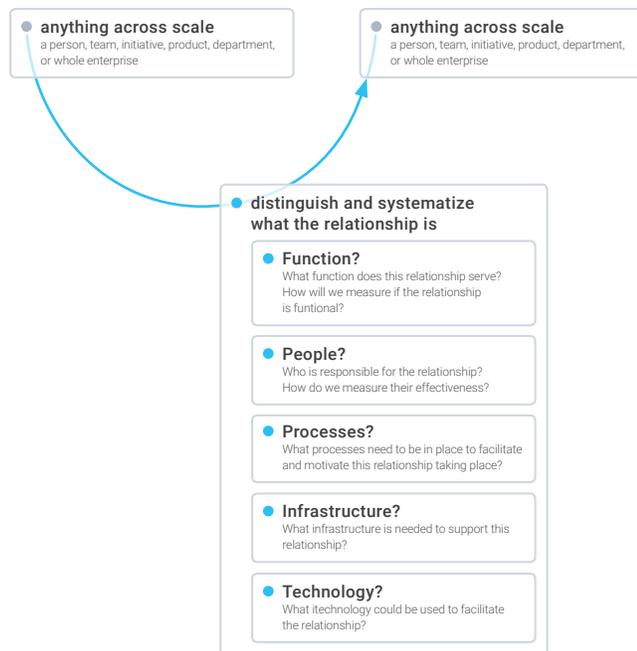


Figure 2: Systemizing an RD to make it an RDS

Silos Happen, RDS can Resolve them

Silos occur when of the authentic necessity for boundaries run amok. This process can be reversed with the creation of clear, systematized relationships among the divisions we make. What I’ve heard consistently from large and small organizations alike is that, “We have great people, but we need great people working together greatly.” Let’s see how silos occur.

Figure 3 illustrates the limited perspective of an initiative Lead, who tends to see things only from the perspective of their initiative. Their focus is naturally on their initiative—and on what they need to do to meet their goals. Of course, they are often aware that others’ initiatives exist (indicated by the transparency of the other initiatives), but tend not to see their work as connected to that of any other initiatives.

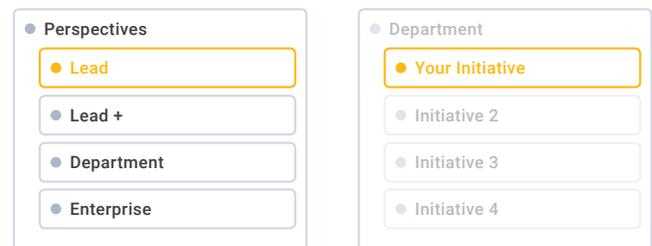


Figure 3: A limited perspective

In Figure 4, we take a slightly more sophisticated perspective. This Leader (let’s call her Lead+) takes a slightly wider perspective, where she sees the relationships (the Rs) between her initiative and the other initiatives.



Figure 4: RDs expand perspective



In Figure 5, we see that our Lead+ has moved to greater specificity about the nature of the relationships between her initiative and others. She has taken an even more sophisticated view by distinguishing (D) the relationships (Rs) and systematizing (S) them. In this case, the three relationships between her initiative and the others are formalized in the same way. In other scenarios these relationships could be distinguished and systematized differently. For simplicity sake, they are the same for this example. In Figure 5, the relationship has been systematized to include parts. For our example, we selected some simple ideas such as creating some shared mental models (perhaps goals or other processes of how the initiatives are related) as well as formal processes such as communication flows, formal collaboration, or bi-weekly check-ins.

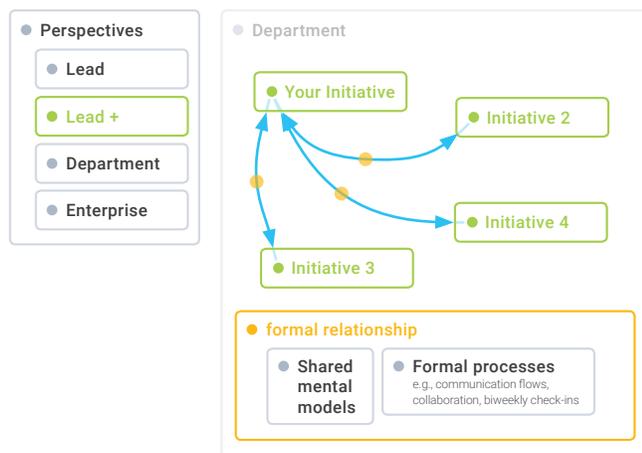


Figure 5: RDSs further expand perspective

Now Lead+ would need to convert these concepts into the real-world actions. First, let's say she gets together with another initiative lead to begin to explicitly formalize a relationship. This is accomplished by sharing calendars and bi-weekly meeting with key initiative staff, setting up a common channel for communications in Slack, or developing system maps for shared mental models and workflows.

This is the power of “structural thinking” that DSRP causes us to ask questions; the answers provide us with new insights and information.

The RDS model prompts us to ask:

1. R question: Is there a relationship between Initiative 1 and 2? Between 1 and 3? Between 1 and 4?
2. RD question: What are these relationships called? How should we name them?
3. RDS question: What are the parts of the relationship we need to operate a system with the explicit function of decreasing silo-fication of these two initiatives?

There are benefits to using this simple algorithm. First, as the relationship becomes formalized, each initiative's Lead (and involved staff) begin to know more about the other initiatives. As a result, they are more capable of taking the perspectives of the other Leads and/or initiatives. In their daily work, this perspective taking ability will have indirect---sometimes unmeasurable---positive, effects. Lead+ starts to better understand the other initiatives and begins including their perspectives in her thinking!

If instead of just one of the Leads acting as a Lead+ we are able to encourage all the team leads to relate to other initiatives, we see that this forms what we might call a new departmental perspective (Figure 6). Each Lead+ is taking a more departmental perspective because we are starting to see more of how things in the department interrelate—all through reifying RDSs.

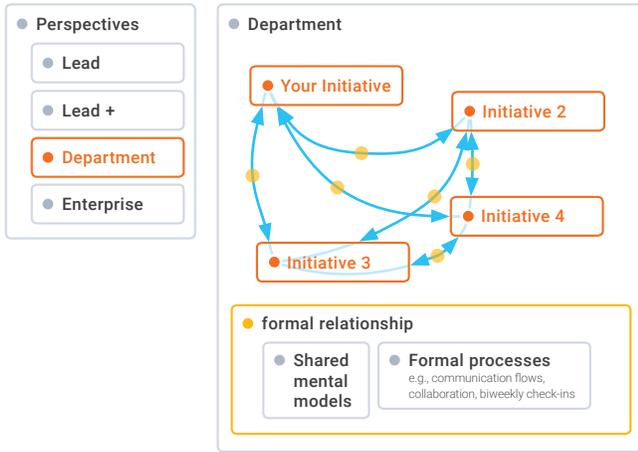
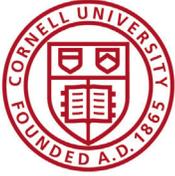


Figure 6: Departmental Perspective with RDSs between All Initiatives

As we described, this same RDS process can become an algorithm for action, further expanding a departmental perspective to an enterprise-level perspective. In Figure 7, instead of looking at the RDSs between initiatives or products, we are looking at the RDSs between whole departments.

As we increase the level of the RDS in terms of size (in this case from department to enterprise) we can expect that the reficiation (the real world manifestations) of these RDS will also increase in size, budget, FTE, infrastructure, etc. The RDS between two departments may be a department in and of itself, full of people entirely responsible for ensuring the relational functions of the system.

What we realize is that the very same structures and processes (RDS) lead to the same results at a higher level of scale. The information is different (departments instead of initiatives) but the process is structurally no different. The net effect is that across scale, we are better understanding how we fit within the whole!

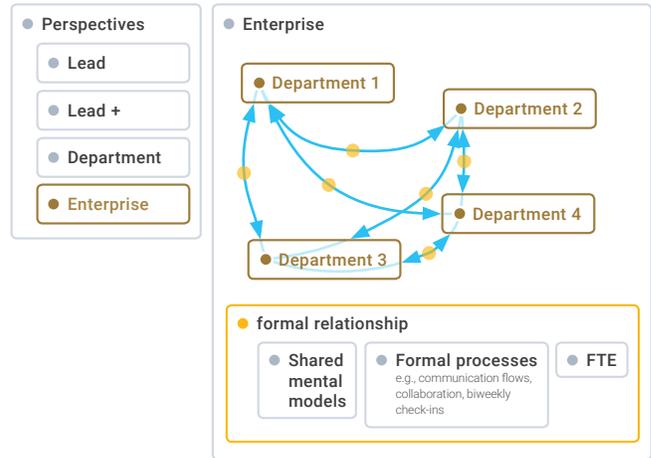


Figure 7: Enterprise Perspective with RDSs between All Departments

What did we do?

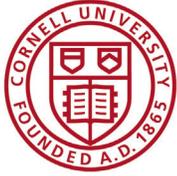
In summary, what did we do to decrease silos? In effect, we followed the basic rules of DSRP. We:

- D: Expanded the boundaries of the distinctions you were making
- S: Looked at parts of the whole and the whole as a part
- R: Looked for relationships, but then distinguished and even systematized them
- P: Took additional perspectives to reveal new distinctions, relationships and part-whole structure

Desilo with Shared Mental Models

One of the parts of the RDSs mentioned in the examples above was shared mental models.” Both organizational learning and organizational culture require shared mental models. Whether you are building culture at the organizational scale or building a new culture between two previously unrelated and siloed initiatives or departments, the culture you build will be the result of the meaning (mental models) you share.

Alongside formal RDSs, building a clear VMCL (Vision-Mission-Capacity-Learning) is another important step in building the often informal and unseen interconnective tissue that binds organizations together, transgresses the



boundaries of departmental or divisional structures, and decreases silos. When two or more people, initiatives, departments or divisions share the same clarity of Vision (goals, etc), Mission (action), Capacity (important systems), and Learning (building, sharing and evolving better mental models), this too has a profound effect on decreasing silos.

End Notes

¹ Cabrera, L., & Cabrera, D. (2016) "Learning Systems Thinking at the Graduate Level: A Case Study in Applying Systems Thinking to Public Policy." *Cornell Policy Review*.



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