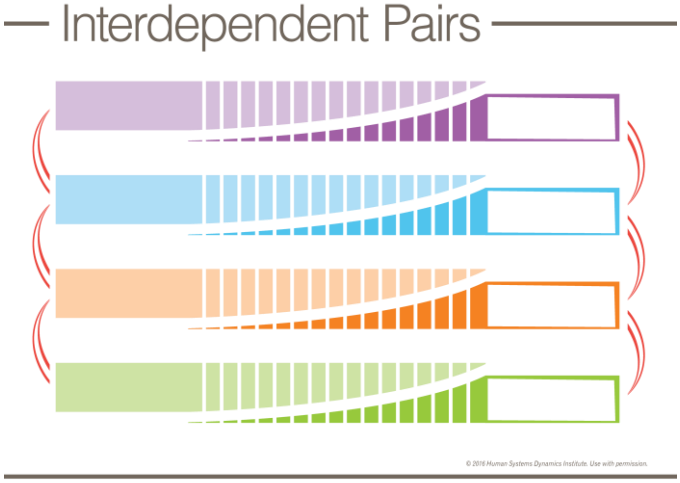
HUMAN SYSTEMS
DYNAMICS INSTITUTE

Interdependent Pairs

Description of Interdependent Pairs

Interdependent Pairs is a model and method that allows individuals and groups to explore the paradoxes that emerge from the complexity in their systems. In a complex system, there is very little that is all or nothing. The challenges that have you stuck are the ones where there is no clear one-way consideration. The stickiness of your issues comes because you move on shifting landscapes between the extreme positions on the questions you face.



What?

In our experience, unstable or unpredictable situations emerge from a framework of Interdependent Pairs. Examples include centralization or decentralization, long-term or short-term decisions, collaboration or independent work, optimizing the whole or the part. Barry Johnson, in his *Handbook of Polarity Management: Identifying and Managing Unsolvable Problems*, describes these pairs as polarities.

In a complex system, multiple polarities are at play at the same time, and they interact to make things even more complicated. Rarely do you operate at either extreme end of any pair. In less complex times, you could use phrases like "either/or" to describe a challenge or a decision. Then there was a recognition of the interdependent nature of some of these extremes in these polarities, and the movement was toward using "both/and" language. In highly complex systems, however, the more realistic picture is that the final critical factor actually lies along a continuum between the two extremes.

Nothing is intractable.

The next wise action for anyone is dependent upon the unique factors present in a given situation. Additionally, in complex systems, another sources of uncertainty lies in the fact that multiple polarities exist and are interdependent with each other. A movement along one pair to resolve one challenge can lead to radical transformation along another pair and create new, unintended challenges.

So What?

Leaders can use this model and method to explore the Interdependent Pairs that contribute to their own sticky issues. By looking at the dynamics of the patterns that shape their greatest challenges, leaders can identify the factors that are at play and the degree to which they influence each other. Issues like speed and quality make up one interdependent pair that any manufacturing leader has to consider. In today's competitive market, you cannot always afford to sacrifice quality for volume, but the tension always arises. Neither can you afford to take too much time creating the highest quality products. And it's impossible to have both! An item can be mass produced or it can be highly crafted over time. It's impossible for one item to have both. Another pair that challenges manufacturers is the idea of whether an item is intended for a single use or for longer lasting service. In issues of sustainability, this Pair becomes crucial.

So as a decision maker, you have to make a judgment about what is most fit for function at any given point in time. Mass produced, simple products that are for single use may not require the same level of quality that is required in an item that is intended to last a lifetime.

This is a pretty classic example of Interdependent Pairs, and it's relatively simple to consider. The challenge for you, as a leader, is to look more deeply into your system's sticky issues to identify the Interdependent Pairs that shape your challenges. Then, to use that understanding to inform your strategies and tactics.

Now What?

So when you feel stuck in your next challenge—you cannot see your next step, use Interdependent Pairs as a model to help you see where you are stuck and as a method to help you identify your next step.

- What are the sticking points that seem intractable? Where is the tension in the system preventing movement? Which of those points seem to be in direct competition or contradiction to each other? Where and how are those points interdependent with each other and with other points of tension you see?
- So what can you do to find the balance between the Interdependent Pairs you see? What wise action will leverage the points to your greatest advantage?
    - Now what action can you take to resolve the tension and move forward?

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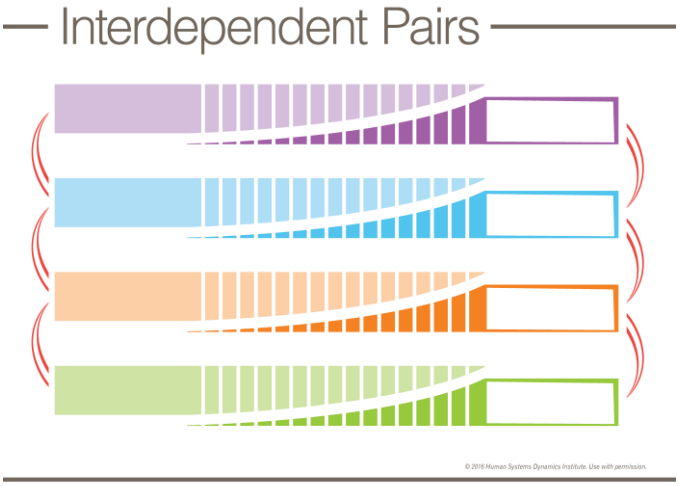
What is the Purpose of Interdependent Pairs?



Using Interdependent Pairs helps you see the relationships between and among the system tensions that keep you stuck. When you understand those relationships you have a better chance of using that tension to leverage productivity and performance across the system.

Here is an example from product development that represents this interdependent relationship among three such polarities. Effective product development efforts focus on dynamic relationships between:

- Quality and speed
- Quality and cost
- Cost and speed

It's simple to see how these pairs and their complex interdependencies could disrupt any simple plan for success. One decision might slide the product along the continuum from high quality toward low quality and increase along the continuum of speed. Slower production may enable higher quality, but it may also increase cost. When considered independently, any one of those decisions may be very difficult to make, but the interdependency with other pairs makes it even more challenging. The decision space becomes unstable because any single decision reshapes the relationships for all remaining decisions.

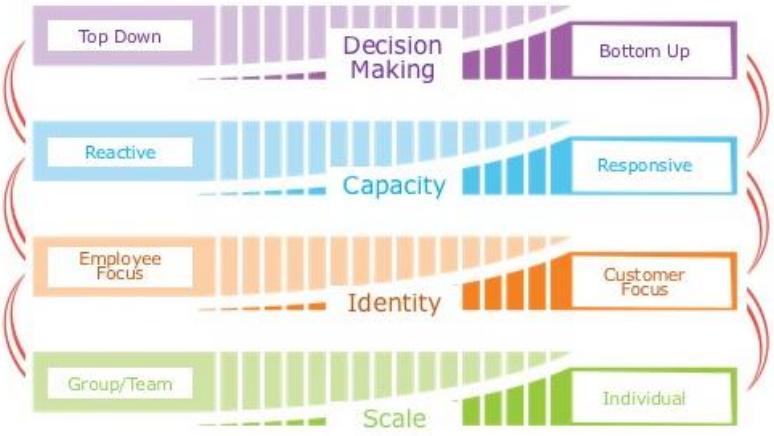
Finding the best balance in any such relationship is difficult. No simple formula will lead to that optimal solution. Trial and error that is based in deep understanding of the relationships between and among the pairs is the only viable strategy. That is why Adaptive Action is such a powerful tool in uncertain times because your decision making

is grounded in understanding those relationships and allows for short feedback loops that increase your agility in responding.

So What Benefit Do Interdependent Pairs Offer?

Ignoring, misunderstanding, or mismanaging Interdependent Pairs is one of the easiest ways to get stuck in a complex human system. Whenever there is an apparently intractable problem, there is a good chance that some dysfunctional interdependent pair is to blame. Once you find the pair and agree on a way to manage it, the intractable problem resolves itself into a series of decisions, which may be difficult, but at least they are not impossible.

Every situation has its own unique set of most important Interdependent Pairs. Consider this example of pairs that you might encounter in your change efforts. These show up in a variety of ways, but the dynamics are undeniable. Large-scale, system-wide change is often complicated by a set of Interdependent Pairs that we call System Change Dilemmas.



Both ends of each spectrum offer risks and benefits. Traditional wisdom focuses on the left, while recent innovations in leadership and management support the right. HSD and Adaptive Action allow you to make conscious decisions to find the place along the multiple continua that is the best fit to situation and purpose. As a result, you access the benefits of both and minimize the risks of either.

Now What Can You Do to Use Interdependent Pairs?

While these systemic dilemmas are common across systems, there is still no one answer to the challenges they pose. Each system is unique; each dilemma carries its own dangers, surprises, and gifts. The most effective path is to use Adaptive Action in cycles of inquiry to see (What?), understand (So what?), and influence (Now what?) the patterns generated by each dilemma individually and among them all as they interact.

Engage in Adaptive Action, considering each pair independently, and then examine their impacts on each other.

- **What?** Identify and explore each pair separately. Use the information you have at hand to develop a deep awareness of where your organization falls on the landscape of change.
- **So what?** Clarify the impact of each pair on the others. Shift one of the dilemmas and see how it might interact with each of the others.
- **Now what?** Consider your options for shifting conditions and analyze the possible outcomes of your action. Then act, and watch carefully as you step right back to the next What? of your Adaptive Action cycle.