

Ongoing Discussion “Thought Piece”

Prepared by

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InThinking Network**

MODELS FOR SUCCESS FACTORS OF VALUE, QUALITY AND COLLABORATION IN RESOLVING ENTERPRISE SITUATIONS

Arnold Goodman, Co-Founding Editor of ASA and Wiley *Journal on Statistical Analysis and Data Mining*

Depending upon the current situation in any *enterprise* (be it business, governmental, military, scientific or social network), the enterprise may be *solving problems*, *supplying products (including service and software)*, *directing projects*, or likely their combination. Fortunately, Figures 1 and 2 apply to all three processes in general. We explore *value* creation and *quality* management for those processes as well as their amplification, and perhaps even maximization, by *collaboration*. Why are value, quality and collaboration *needed more* today than ever? In the 21st Century, most of our enterprise situations are increasingly *complex*, flooded with *massive data*, or involved with numerous *disciplines* containing different *perspectives* on either the environment or its situation.

IBM provocatively stated in an advertisement: “*Stop selling what you have -- start selling what they need*”. Think beyond narrow aspects of any situation and satisfy the major needs of situation’s stakeholders (its users, owners, financiers, facilitators, consultants or directors). We should: attempt to use our *body* on easy tasks, *mind* to create value, *heart* to go beyond value, *soul* for improving the situation, and *spirit* for achieving a common success. Each situation will require its appropriate level of *attention* and *dedication*.

Since value creation is not part of a typical consultant’s *assuming the needs and given resources before satisfying those needs with convenient tools at hand*, we propose *model representations of value creation’s success factors*, to use with *situation’s stakeholders*:

- *Defining* actual stakeholder *needs* by progressing from an initial version to an agreed-on version by our gentle cross-examination
- *Identifying* most appropriate collection of *resources*, not necessarily those at hand, to advance a satisfaction of stakeholder needs
- *Designing* most promising *tools* to use on most appropriate collection of resources in satisfaction of agreed-on stakeholder needs
- *Satisfying* stakeholder *needs* with most appropriate resources and promising tools in the most cost/quality/time-effective manner
- *Checking* satisfaction *results* in the enterprise situation with sniff tests, sanity tests, reality tests, practicality tests and worth tests
- *Creating value* with interpretations of results to prepare for stakeholder decisions, stakeholder actions and stakeholder insights

Although increasingly many talk collaboration, almost no one knows what it is and: *how to coach it, evaluate it, manage it, plan it, or make it succeed*. Until we understand collaboration sufficiently better, we propose *model representations of its success factors*:

- *Connecting* to strive for a community of bonding relationships among stakeholders and also enhance the credibility among them
- *Communicating* to strive for a common language to increase the compatibility among stakeholder for creating value and quality
- *Contributing* oneself and one’s results to extend connecting and communicating toward committing, challenging and changing
- *Committing* to strive for common stakeholder goals plus their accomplishment and improvement by joint behavior and attitude
- *Changing* to be able to act for success through erasing fear, promoting pride, cooperation, leadership and everyone’s improving
- *Challenging* all to adopt new attitudes, mobilize success, steer success, overcome resistance and perform for transition to success

W. Edwards Deming’s 14 + 1 Principles are: (understand stakeholders), be constant in purpose, accept new concepts, price-in quality, always be better, do not depend on inspection, eradicate quotas, eliminate slogans, train on the job, erase fear, promote pride, cooperate across organizations, lead instead of boss, transform oneself and transform everybody. *Joseph Juran’s Trilogy* is to: identify stakeholders, define goals, determine requirements, develop features, generate processes, establish controls, focus upon vital few, break through new attitudes, mobilize for improvement, diagnose for improvement, steer towards improvement, overcome resistance, break through performance, and transition to new levels. Deming and Juran complement each other well and define *quality’s critical success factors*. Figures 3 and 4 summarize integration of Deming/Value/Juran and Deming/collaboration/Juran.

The steps from *listening* and *chancing it*, through *acting* and *trusting*, to *believing* and *having faith* are portrayed by Figure 5. Figure 6 adapts Ann Hermann-Nehdi’s “Whole Brain Thinking Model” by: reworking model, adding mind immune system (to both protect and imprison the mind by resisting or attacking unfamiliar ideas), relating value creation and collaboration to model, and describing a need to manage our mind immune system. Although we believe that we need to *think less* by depending on all of our methodology and technology, we actually need to *think more, more broadly, more deeply, more frequently and better in key enterprise situations*.

Since business, governmental, military and scientific enterprises all involve a social network, we include significant comments that apply to them in particular. Recent catastrophic crises (such as global financial meltdown and British Petroleum’s leaking well in the Gulf of Mexico) exhibit failures in social networks which are largely due to the failures in *value creation, quality management* and *regulatory collaboration*. Collaboration progress constitutes a *social network*, and analysis of social networks includes *collaboration graphs*. In addition, *process models* (such as those in Figures 1 and 2) would likely provide far more *usable and useful information* than typical network graphs. They are based upon our first process model for the cell’s protein cycle (Arnold F. Goodman, Cláudia M. Bellato and Lily Khidr, “The Uncertain Future for Central Dogma: Uncertainty Serves as a Bridge from (Genetic) Determinism and Reductionism to a New Picture of Biology”, *The Scientist*

Experience in Enterprises & Experiences in Thinking

Arnold Goodman, Co-Founding Editor, *ASA-Wiley Statistical Analysis & Data Mining Journal*

Experience in Enterprises

Power-spectral-density analysis of clear-air turbulence at *NACA* (→*NASA*)

Dominant error-sources of inertial-navigation for its *Autonetics*' inventors

Simulation, info systems & Apollo negotiation at *North American Space*

Senior Staff to *McDonnell-Douglas* Vice President of Information Systems

Management science, IT planning & user computer-cost-allocation at *Arco*

Capacity planning & performance + IT planning & safety at *LA County IT*

Co-Founder of Center for Statistical Consulting (→ Statistics Dept.) at *University of California at Irvine (UCI)*

Except for UCI, always lived in same organization as clients & collaborators

Experiences in Thinking

Bold thinking beyond brain's "immune system": *inside-the-box*, *outside-the-box* & *structural modeling* of complex situations by *checklists* & *scorecards*

Inside-the-box (of cell biology) thinking from *outside the box* (of statistics and systems) includes: 2004- first process or system model of DNA-protein-DNA cycle, exploring uncertainty in Nature's cycles of life & proposing a collaborative means to bridge huge gap between classical & systems biology

Outside-the-box thinking includes: 1962 (was it 1st?) use of mixed model to solve a regression problem where the error variance is unknown & variable, 1965 modeling of information-flow process beyond usual use of histograms, 1967- co-founding of annual symposia on interface of computing science & statistics, 1968 cataloging of consultants' statistical expertise for library use, 1983 generating computer cost-allocation budgets for users to accept/reject, 1988 dollarizing of future computer usage to justify buying new computer, 2000- value creation & collaboration in complex problems/products/projects & 2006- co-founding of *ASA-Wiley Statistical Analysis & Data Mining Journal*

Structural modeling of complex situations includes *checklists* & *scorecards*:

1961 evaluating statistical software, 1973- site selection of ATM & cosmetic studio locations, 1996- evaluating project-managing, 1998- modeling most-significant factors in patient-satisfaction, and 2000- modeling value creation & collaboration plus both their separate growth & their integrated growth

PROBLEM, PROD. & PROJ. VALUE CREATION

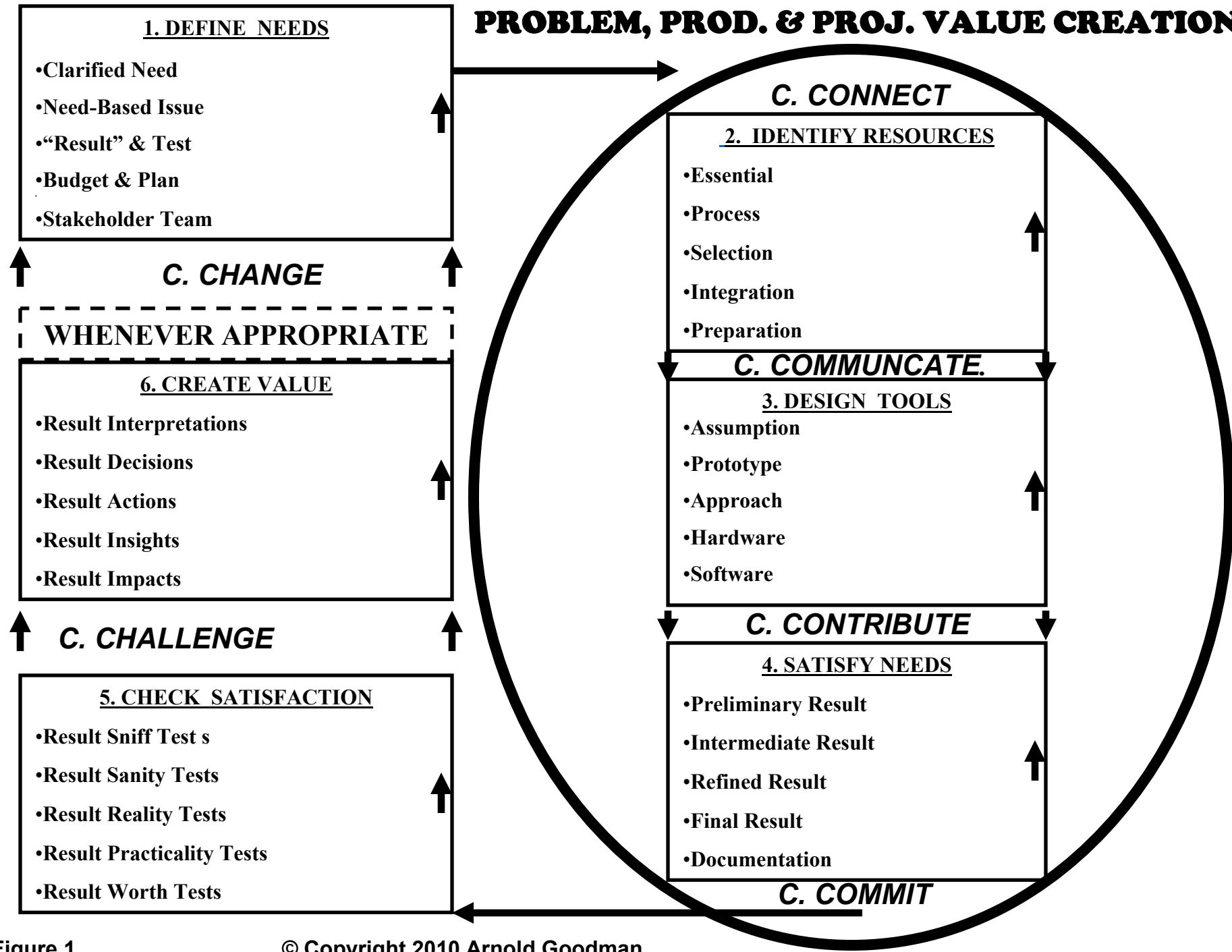


Figure 1.

PROBLEM, PROD. & PROJ. COLLABORATION

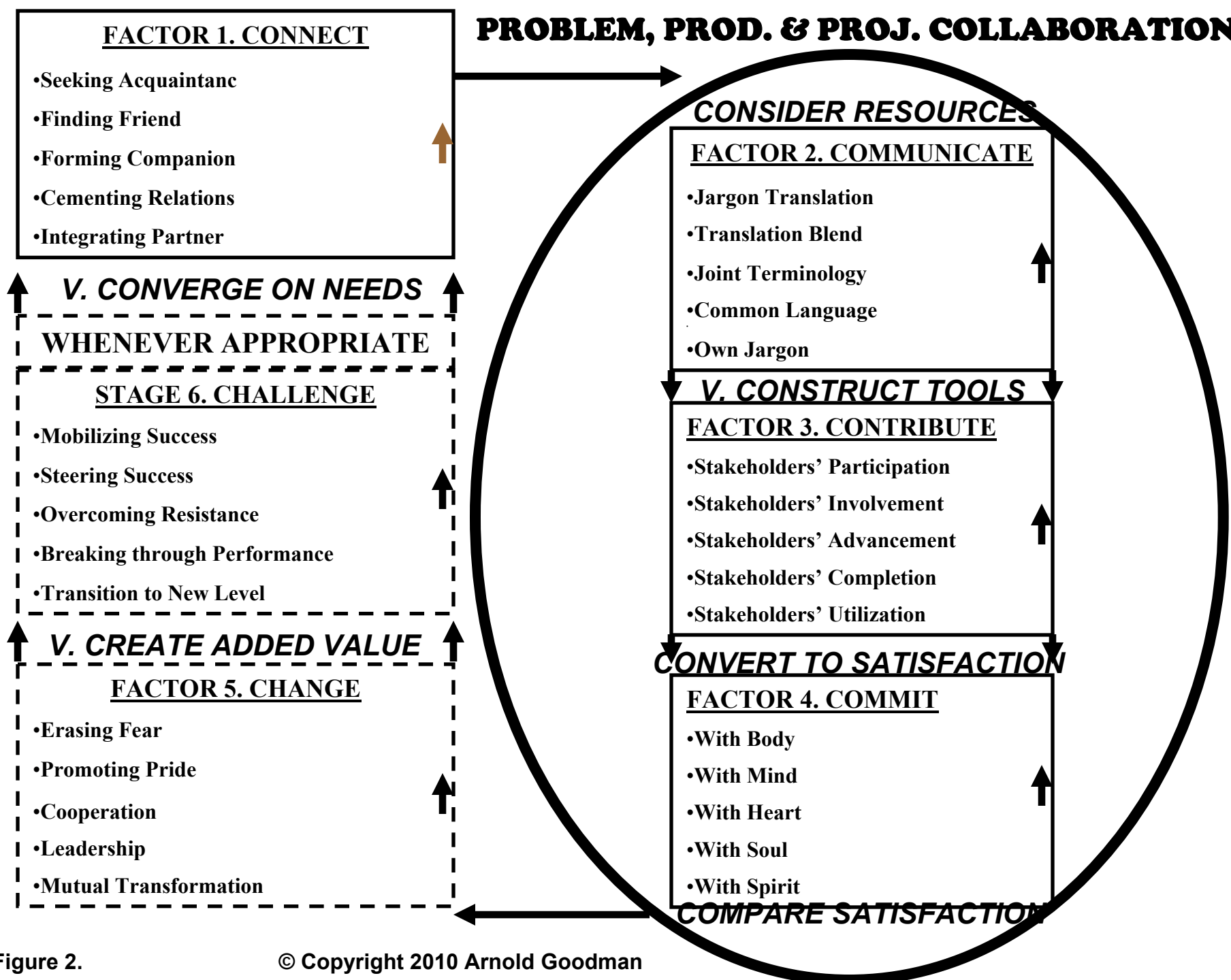
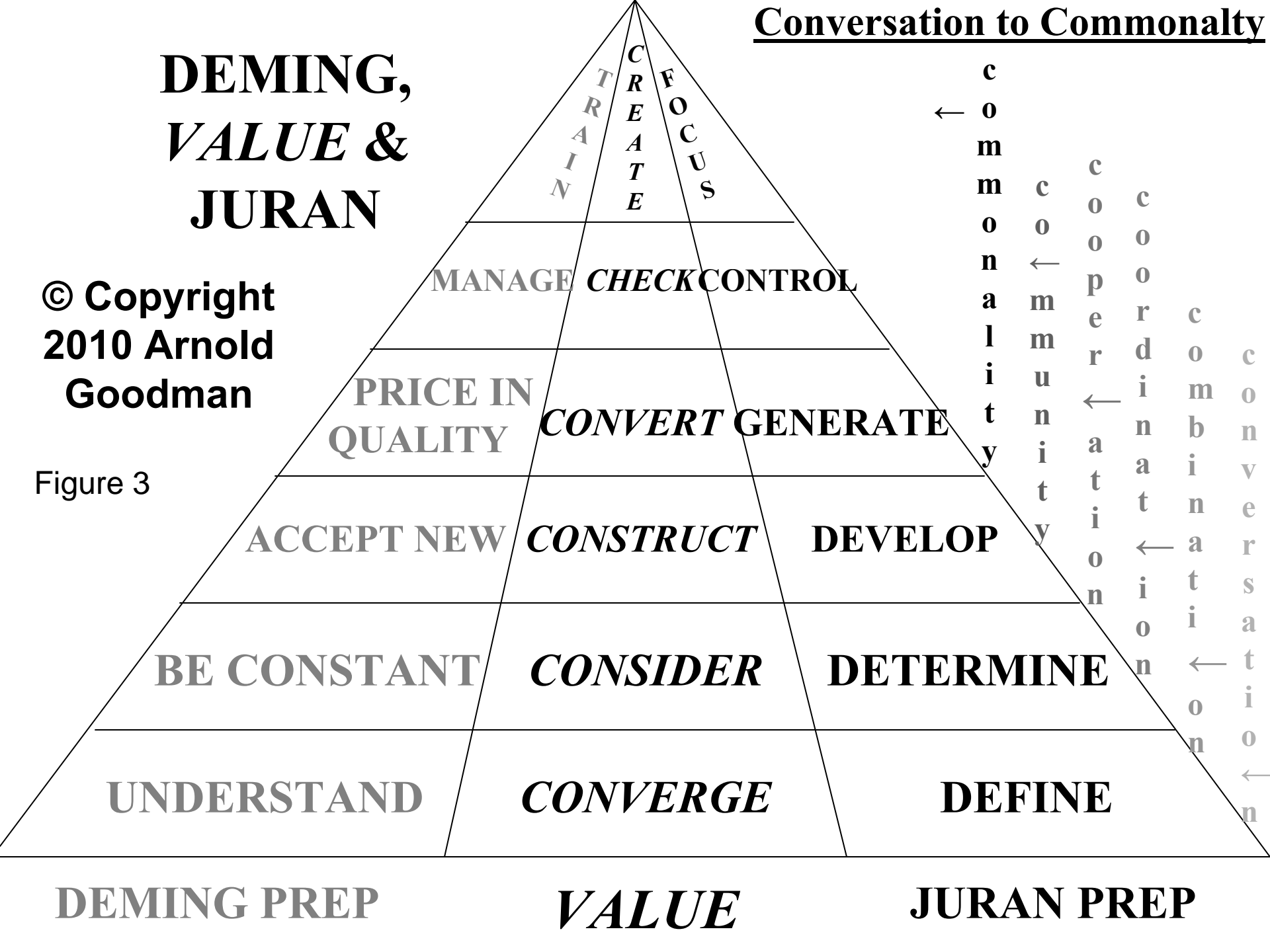


Figure 2.

**DEMING,
VALUE &
JURAN**

Conversation to Commonality



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CREATE
FOCUS**

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n**

MANAGE CHECK CONTROL

PRICE IN QUALITY CONVERT GENERATE

ACCEPT NEW CONSTRUCT DEVELOP

BE CONSTANT CONSIDER DETERMINE

UNDERSTAND CONVERGE DEFINE

DEMING PREP

VALUE

JURAN PREP

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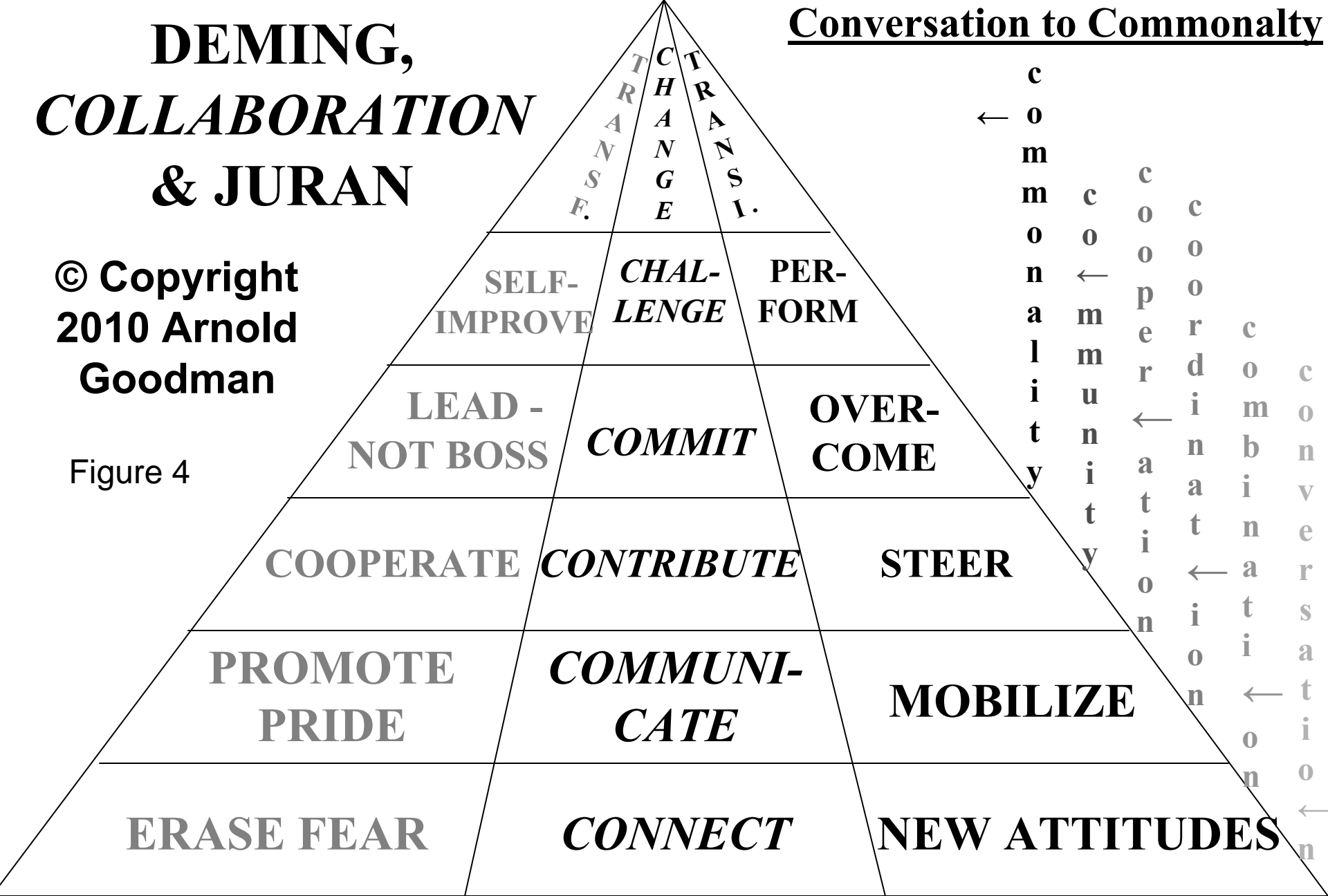
Figure 3

DEMING, *COLLABORATION* & JURAN

Conversation to Commonality

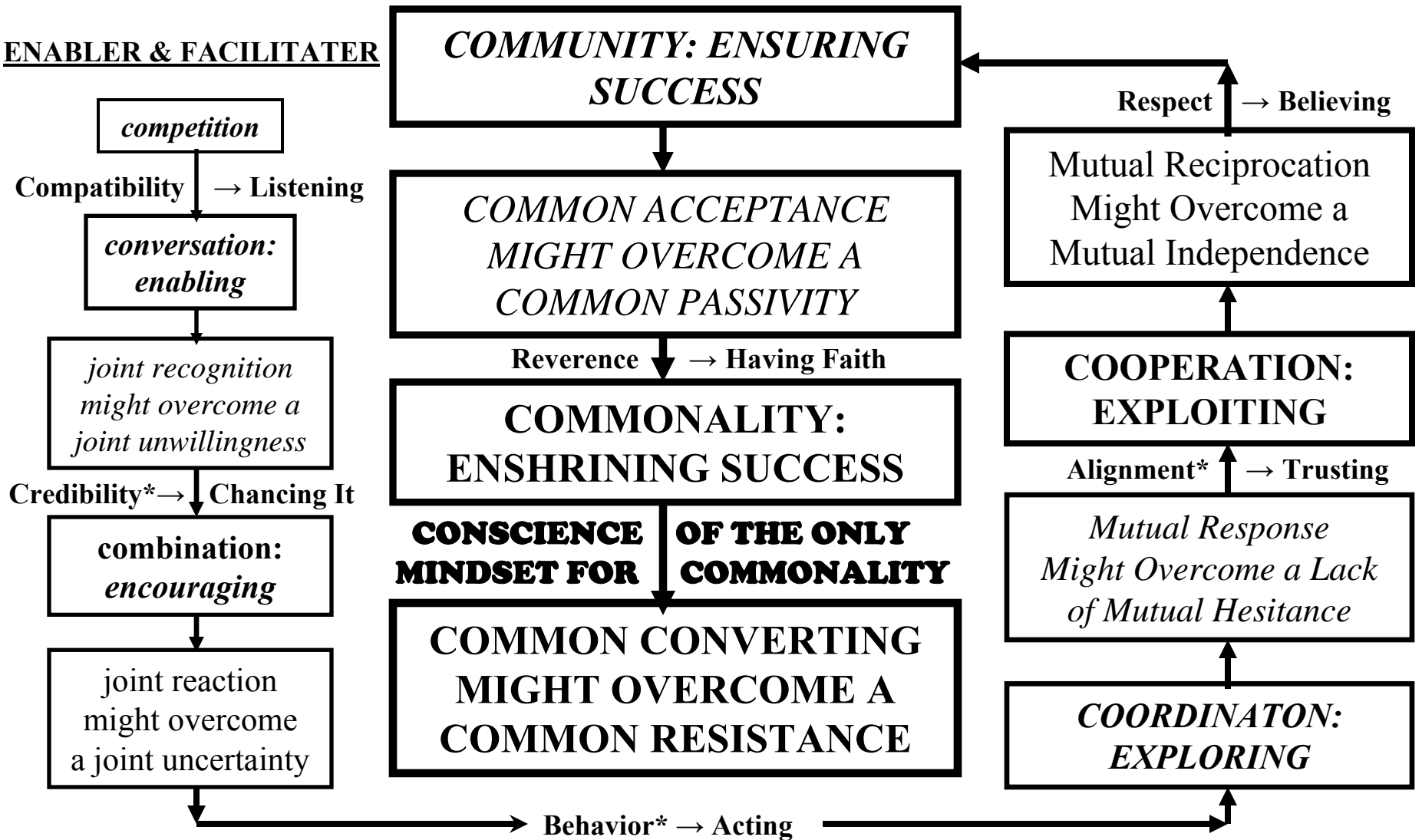
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Figure 4



DEMING ACTION *COLLABORATION* JURAN ACTION

LISTENING → CHANCING → ACTING → TRUSTING → BELIEVING → HAVING FAITH & COLLABORATION



* Trusting Enablers with a "*" are from Steven Covey with Rebecca Merrill, *The Speed of Trust*

MANAGE MIND IMMUNE SYSTEM TO BOOST VALUE, QUALITY & COLLABORATION

IMMUNE SYSTEM OF MIND

*Resists & Attacks 'Outside' Influences
Just as Immune System of Body Does*

SYNTHESIZING INFORMATION

**T
H
I
N
K
I
N
G**

UPPER LEFT
Exploits Patterns
for Relationships

UPPER RIGHT
Exploits Patterns
for Possibilities

LOWER LEFT
Explores Data
in Novel Patterns

LOWER RIGHT
Explores People
in Novel Patterns

**F
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L
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S**

ANALYZING INFORMATIVE PATTERNS

← 20TH CENTURY →
← VALUABLE CREATION →
PROBLEM SOLVING & PRODUCTION
CONVERGENT THINKING

← 21ST CENTURY →
COLLABORATION
DIVERGENT THINKING
SOCIAL NETWORKS

Figure 6. Immune System of Mind based upon Adapting Composition of *Whole Brain Thinking Model* (ann@hbdi.com)

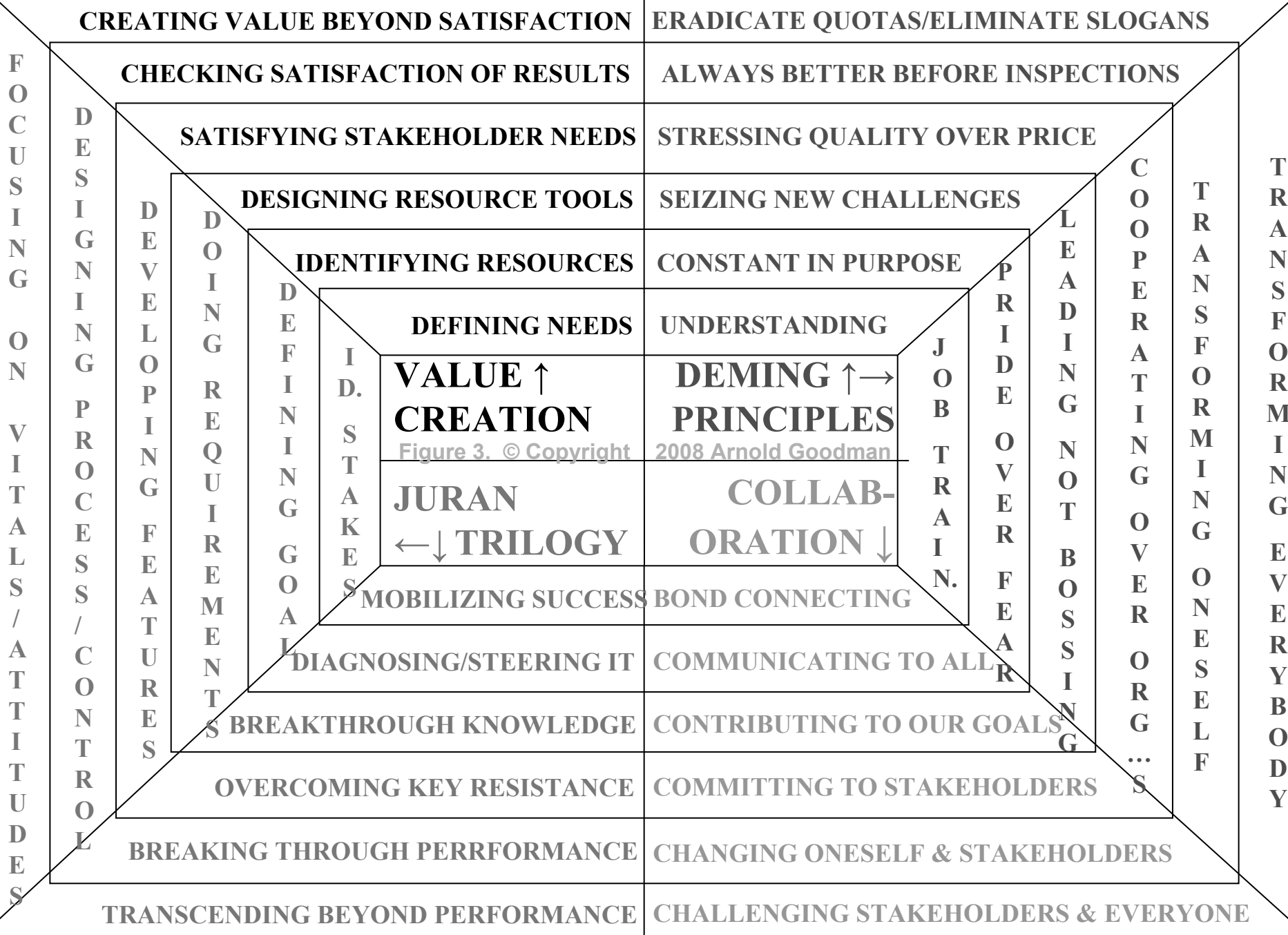


Figure 7. 1st Draft

VALUE CREATION, DRUCKER/PETERS & COLLABORATION

<u>VALUE CREATION</u>	<u>DRUCKER/PETERS</u>	<u>DRUCKER/PETERS</u>	<u>COLLABORATION</u>
DEFINING NEEDS: Needs → Issues → “Result?” & Test → Budget & Plan → Team	Organization to provide services/care for people/ do community service & right question → answer	Listen to engage, engage cultures, lead is a liberal art, it’s about people & future is outside window	CONNECTING: Acquaintance → Friend → Companion → Relation → Partner
IDENTIFYING RESOURCES: Essential → Process → Selecting → Integrating → Preparing	Look ahead to get value, basic resource = people, seek broad/deep/ethical & eyes window into soul	Listen before talking, learn well, stay in touch, triangulate among key approaches & tell story	COMMUNICATING: Translation → Blend → Terminology → Language → Jargon
DESIGNING TOOLS: Assumption → Prototype → Approach → Hardware → Software	Virtue = middle of vices (Aristotle), balance need vs reality, people centric & experiment fearlessly	Listen for respect, little courtesy + achievement = success & listen/learn to predict/create future	CONTRIBUTING: Participate → Involve → Advance → Complete → Utilize
SATISFYING NEEDS: Preliminary → Intermediate → Refined → Final → Documentation	Most tries wins, simplify the complex, perform in holistic/systems manner & reward over punish	Listen intensely + sweat details + share insights = a success & ‘timeliness’ may well follow ‘timely’	COMMITTING: Our Body → Our Mind → Our Heart → Our Soul → Our Spirit
CHECKING SATISFACTION: Sniff → Sanity → Reality → Practicality → Worth	Fail/forward/fast, HP MBWA, what everyone knows may be wrong & effectiveness > efficiency	Listen to stakeholders, stakeholders = market?, & appropriate change overcomes turbulence	CHANGING: Pride > Fear → Lead → Cooperate → Transform One → Transform Everyone
CREATING VALUE: Interpretations → Decisions → Actions → Insights → Impacts	Systematize the past & integrate into present to innovate for the future, but ‘hard’ is ‘very soft’	Talent + partnership = success, ‘soft’ is ‘very hard’ & stay angry to be an effective conscience	CHALLENGING: Mobilize → Diagnose/ Steering → Know → Perform → Transcend

Figure 8. 1st Draft