Linking Creativity with Psychological Type.

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ABSTRACT

Linking Creativity with Psychological Type

This project reviews the author's discoveries linking creativity with psychological type and Keirsey’s Temperament theory. These form the foundation of her newly published work, Creativity and Personality Type: Tools for Understanding and Inspiring the Many Voices of Creativity (2001).

Facilitators often design and lead creative problem solving sessions that match their own style without awareness that group and client needs may be different. When that occurs, participants are less able to fully engage. Cognitive process and motivational drives described though psychological type and Temperament frameworks show how this may be so. Recommendations are given for facilitators to maximize their impact in meaningful, responsible and strategic ways.

This project also documents the journey of writing the book including the nuts-and-bolts stages, key learnings and insights into personal creativity.
Linking Creativity with Psychological Type

A Project in
Creative Studies

by

Marci Segal

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Marci Segal, Candidate

May 12, 2001

Dr. Gerard Puccio, Advisor and Director
The Center for Studies in Creativity
DEDICATION

To the patient ones.

ACKNOWLEDGMENTS

A special thanks to Drs. Gerard Puccio and Ruth B. Noller.
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Creativity is often treated holistically and generally. Prescriptions about 'how to be more creative' are given daily with little consideration that some people and not others may more easily apply one method or approach.

Rhodes (1961) outlined four themes around which writings in creativity had centered. These are now used as keystones delimiting the scope of creativity for research and application: person, process, product and press or influence of the environment on each.

Swiss Psychologist Carl Jung's theory of personality type (Jung, 1923; Myers & McCaulley, 1976; Myers & Myers, 1980; Myers, McCaulley, Quenk, & Hammer, 1998) together with American Psychologist David Keirsey’s Temperament theory (Berens, 1999, 2000; Keirsey, 1984, 1999) provide portals for creativity researchers and practitioners to appreciate different approaches and inherent attitudes and energies used to arrive at a 'new and relevant' product - when we consider the person as a first entry point into understanding and inspiring creativity.

A person’s inherent cognitive processing and motivation to initiate change can influence the choice of creative processes to use to achieve breakthrough solutions. Further, the definition and measurement of a product’s creativity and the nature of the environment that encourages individuals to be at their creative best may also be unique rather than generalizable to the whole.
Purpose

The purpose of this project was:

- To demonstrate links between the theories of psychological type with studies in creativity,
- To demonstrate how frameworks of psychological type can be applied to fine tune creative problem solving facilitation methods, and approaches, and to anticipate expectations of outcomes, and
- To outline the journey of becoming an author and highlight personal learnings.

Section One reveals the underpinnings of psychological type theory, focusing on Jung’s cognitive processes and how these can be derived from the 16 type personality codes revealed through the Myers-Briggs Type Indicator (MBTI). Keirsey's Temperament theory, based on social needs and inherent motivations is also explained. Benefits for applying these frameworks to facilitating CPS for are listed, as are recommendations for CPS facilitators.

Section Two outlines the history of the author's journey of writing the book Creativity and Personality Type: Tools for Understanding and Inspiring the Many Voices of Creativity (2001).

Section Three summarizes key learnings, including the emotional awareness, which emerged while writing the book. It finishes with personal insights into the author's creative process.
SECTION 1

LINKING CREATIVITY WITH PSYCHOLOGICAL TYPE

Introduction

This section introduces Jung's theory of personality type as represented through the Myers-Briggs Type Indicator (MBTI)®. Jung’s cognitive processes and reference to their archetypal associations are explained. Keirsey's Temperament theory and how it overlaps with type is also presented. Benefits for applying both frameworks to facilitating CPS are listed and recommendations for CPS facilitators based on these two theories are made.

Jung’s Theory of Personality

Jung’s theory presents the concept of eight unique interactively dynamic cognitive processes, or functions, for attuning to information and forming conclusions. Mind energy naturally shifts focus between of diverging/generating and converging/selecting to meet survival needs and achieve psychic balance.

Each person has an innate psychological type. Everyone is naturally attuned to perceive certain kinds of information and to form conclusions by means of particular criteria.
Individual approaches to creative problem solving may be affected by a person's cognitive process make up. Each is aware of a unique set of data. Each has a way of defining a good decision. What works best for one may not work best for all.

The sequencing of perceiving and judging cognitive processes balances psychic energy in two ways: by iterating between perceiving and judging and by changing awareness from internal reflection to external interaction and vice versa.

Though only one cognitive process is engaged at any one time, none exist solely without the influence of others. When accessing a perceiving process, a judging process influences what is perceived. Similarly when forming conclusions the content of what has been perceived plays a role. The balance of cognitive processing in the two orientations is continual and can be relied upon to occur.

According to theory, each person is born with a predisposition to consciously access some of cognitive process energies and not others. Preference is the term used to connote the cognitive processes an individual feels energized by using, those that come easily and are likely developed. The type code derived from the MBTI reveals which processes by theory are conscious, developed, developing and unconscious at certain stages throughout an individual's life (Grant, 1983; Segal, 2001).

Table 1 shows the development of the cognitive processes for each of the sixteen MBTI type codes, grouped by Keirsey's Temperaments.
Table 1.

Cognitive process development of the MBTI Type codes arranged by Keirsey's
Temperaments.

<table>
<thead>
<tr>
<th>MBTI code</th>
<th>Conscious processes</th>
<th>Unconscious processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISTP</td>
<td>Ti</td>
<td>Se</td>
</tr>
<tr>
<td>ESTP</td>
<td>Se</td>
<td>Ti</td>
</tr>
<tr>
<td>ISFP</td>
<td>Fi</td>
<td>Se</td>
</tr>
<tr>
<td>ESFP</td>
<td>Se</td>
<td>Fi</td>
</tr>
<tr>
<td>ISTJ</td>
<td>Si</td>
<td>Te</td>
</tr>
<tr>
<td>ESTJ</td>
<td>Te</td>
<td>Si</td>
</tr>
<tr>
<td>ISFJ</td>
<td>Si</td>
<td>Fe</td>
</tr>
<tr>
<td>ESFJ</td>
<td>Fe</td>
<td>Si</td>
</tr>
<tr>
<td>INTJ</td>
<td>Ni</td>
<td>Te</td>
</tr>
<tr>
<td>ENTJ</td>
<td>Te</td>
<td>Ni</td>
</tr>
<tr>
<td>INTP</td>
<td>Ti</td>
<td>Ne</td>
</tr>
<tr>
<td>ENTP</td>
<td>Ne</td>
<td>Ti</td>
</tr>
</tbody>
</table>

(Table continues)
Table 1.

Cognitive process development of the MBTI Type codes arranged by Keirsey's Temperaments (continued).

<table>
<thead>
<tr>
<th>MBTI code</th>
<th>Conscious processes</th>
<th>Unconscious processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idealist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFJ</td>
<td>Ni, Fe, Ti, Se</td>
<td>Ne, Fi, Te, Si</td>
</tr>
<tr>
<td>ENFJ</td>
<td>Fe, Ni, Se, Ti</td>
<td>Fi, Ne, Si, Te</td>
</tr>
<tr>
<td>INFP</td>
<td>Fi, Ne, Si, Te</td>
<td>Fe, Ni, Se, Ti</td>
</tr>
<tr>
<td>ENFP</td>
<td>Ne, Fi, Te, Si</td>
<td>Ni, Fe, Ti, Se</td>
</tr>
</tbody>
</table>

According to Harold Grant, we develop and consciously use each process cumulatively over a succession of developmental stages. The dominant or leading cognitive process (1) develops from the ages of 6 – 12 years, the auxiliary or supporting (2) from 12 - 20, the tertiary (3) from 20 - 35 and the inferior function (4) from 35 - 55. The remaining four functions are considered outside of day-to-day consciousness and control. Deliberately accessing these energies and the skills associated with them requires great effort and cannot be sustained over long periods of time without cost to psychic balance (Segal, 2001).

Jungian analyst Dr. John Beebe suggested each of these processes represents an archetypal energy and Berens (1999) interpreted the meanings
of these archetypes into everyday language. The archetypes are associated not with the nature of the cognitive process; they align to their placement.

Table 2 shows the archetypal associations with the placement of the cognitive processes.

<table>
<thead>
<tr>
<th>Process placement</th>
<th>Beebe</th>
<th>Berens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscious processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Hero</td>
<td>Leading</td>
</tr>
<tr>
<td>2</td>
<td>Good Mother/Father</td>
<td>Support</td>
</tr>
<tr>
<td>3</td>
<td>Puer/Puella</td>
<td>Relief</td>
</tr>
<tr>
<td>4</td>
<td>Anima/Animus</td>
<td>Aspirational</td>
</tr>
<tr>
<td>Unconscious processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Opposing</td>
<td>Oppositional</td>
</tr>
<tr>
<td>6</td>
<td>Senex/Witch</td>
<td>Critical Parent</td>
</tr>
<tr>
<td>7</td>
<td>Trickster</td>
<td>Deceiving</td>
</tr>
<tr>
<td>8</td>
<td>Daemon</td>
<td>Devilish</td>
</tr>
</tbody>
</table>

(Adapted from Segal, 2001, pg. 80 - 81)
Table 3 briefly describes the nature of the archetypal energy for the conscious and unconscious cognitive processes.

**Table 3.**

Archetypal energy descriptions of the conscious and unconscious cognitive processes when each is engaged.

<table>
<thead>
<tr>
<th>#</th>
<th>Archetype</th>
<th>Energy when engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscious processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Hero or Leading</td>
<td>Most trusted, used and adultlike</td>
</tr>
<tr>
<td>2</td>
<td>Mother/Father or Support</td>
<td>Nurture self and others</td>
</tr>
<tr>
<td>3</td>
<td>Puer/Puella or Relief</td>
<td>Renew and play</td>
</tr>
<tr>
<td>4</td>
<td>Anima/Animus or Aspirational</td>
<td>Contrasexual ideal</td>
</tr>
<tr>
<td>Unconscious processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Opposing Personality or Oppositional</td>
<td>Become stubborn and argumentative</td>
</tr>
<tr>
<td>6</td>
<td>Senex/Witch or Critical Parent</td>
<td>Harshly demoralize, pick on frailties in self and others</td>
</tr>
<tr>
<td>7</td>
<td>Trickster or Deceiving</td>
<td>Make mistakes in judgment, paralysis and inaction</td>
</tr>
<tr>
<td>8</td>
<td>Daemon or Devilish</td>
<td>Destructive of self and others</td>
</tr>
</tbody>
</table>

(Adapted from Segal, 2001, pg. 80 - 81)

Jung's writing about the libido, or psychic energy, shows that when an individual accesses the energy of a developed cognitive process he or she is
engaged and enlivened. When the person exercises energy of a process that is relatively undeveloped, greater effort is required. The archetypal energies associated with cognitive process placement give clues as to why this is so.

Cognitive process energy use and skill-related development are influenced by environmental factors. Parents, teachers, and work conditions, for example, often require individuals to develop skills related to cognitive processes that are unique to thriving in that environment and not necessarily part of an individual’s inherent makeup.

Corporate decision making, for example, typifies the use of the extraverted Thinking (Te) cognitive process - externally organizing people and things to accomplish measurable and defendable objectives (see Table 4). People working in this setting learn early in their career, if not at business school, that SMART goals, i.e. ones that meet the criteria of specific, measurable, actionable, realistic and timebound, form the primary basis from which actions are decided and supported. People with a developed Te function may engage this discipline more easily than those who have yet to develop agility accessing its energy.

Environmental requirements for accessing the unique energy of a cognitive process may or may not match an individual’s inherent makeup. Developing skill associated with any function can be accomplished. Mastering skills associated with a developed function may be easier than mastering skills associated with undeveloped ones. When using skills associated with undeveloped functions, an individual must be willing to relax
his or her inherent cognitive process attunement to adopt one outside of his or her 'normal' functioning. Having a developed function does not necessarily correlate with a person being good or bad at certain kinds of tasks associated with that cognitive process.

Examining the unique characteristics and attractors for each of the eight cognitive functions - four that attune to information and four that form conclusions - provides an entry point to the mental energy system revealed through type.

Information is perceived using four unique lenses. Each aligns with a different energy pattern or frequency of information. Perceiving functions are most active during divergent thinking activities. Jung called these non-rational cognitive processes, as judgement is not applied when the perceiving functions are engaged.

iNtuiting (N) is the name of the abstract perceiving process. By engaging it, meanings, conceptual patterns and future potentials are inferred and pre-seen. Notions, insights and grand theories hold attention.

Sensing (S) names the concrete perceiving process. Sensing frequencies acutely detect what is as it is on this plane of existence. No abstraction is involved as with iNtuiting per se. Tangible, concrete and specific data pertaining to the present and past are attended to when this process is employed.

By theory, each person has a preference for one of these two primary perceiving processes in either the extraverted or introverted attitude.
Likewise, each one also has a preference for one of the two judging functions in either orientation.

Decision making or converging is accomplished through the judging cognitive processes. Impersonal and detached decisions are formed using the Thinking (T) function while interpersonal and value based decisions arise when accessing the function called Feeling (F).

Jung's intent behind using the words Thinking and Feeling was to indicate consistent rational criteria from which judgements are made. People often ascribe erroneous attributes to these words by associating them with inferences from outside the context of theory. Thinking, in psychological type theory, connotes decisions made based on impersonal analysis. Feeling refers to conclusions reached from a ranking of personal or interpersonal importance.

Jung wrote about two attitudes - extraverting and introverting - in relation to the cognitive processes. Extraverted processes are engaged when interacting with the immediate environment. Introverted ones are activated through reflection.

Every function is either introverted or extraverted and does not stand alone as purely as Thinking or iNtuiting, for example. Instead, Thinking is either introverted Thinking (Ti) or extraverted Thinking (Te); iNtuiting either introverted iNtuiting (Ni) or extraverted iNtuiting (Ne). Table 1 shows the introverted and extraverted functions of each of the 16 types.
Four of the eight functions are extraverted and four are introverted. Each person accesses both introverting and extraverting processes. This balancing between introverting and extraverting attention lends insight into the notion of 'in and out' listening.

Of the two primary functions used by each person, one is a judging (T or F) function, the other, perceiving (S or N). One of these will be the leading or dominant process and the second is the support or auxiliary.

When the dominant is a perceiving process, the auxiliary is a judging one; when the dominant is a judging function, the auxiliary is a perceiving one. Also when the dominant is extraverted, the auxiliary is introverted and vice versa. (See Table 1.)

Each has the capability to diverge using his or her developed perceiving process. For some, it is an extraverted perceiving function. These may enjoy using traditional brainstorming (Se, Ne). Others prefer to diverge internally using their developed introverting functions (Si, Ni) as in Mindmapping and writing.

One of the two perceiving cognitive processes is likely to prevail uniquely from person to person because each individual has an innate attraction to and preference to use one of the four perceiving lenses.

Converging follows suit. Some individuals prefer to decide in conversation with others meeting external needs for structuring (Te) and harmonizing (Fe). Others like to form conclusions based on their developed
introverted process. They evaluate from a base of personal principles (Ti) and
values (Fi).

Examples of extraverted decision making include group involvement
in the Solution finding matrix where potential solutions are measured against
external measurable criteria (Te) e.g. cost, time and ease of implementation,
and through using other points of view as in considering stakeholder
interests (Fe). Introverted judgment is engaged using the paired comparison
analysis on one's own using the criteria of 'personal like' (Fi) or 'detached fit
with objective' (Ti).

Each person has the capacity to access all eight functions with varying
levels of frequency, intensity and trust.

People tend to prefer to energize using skills associated with their
dominant process. This may help us to understand why some people enjoy
diverging, while others are drawn to converging. Further it might lend clues
to understand why some people enjoy group work and others prefer to work
alone. Tapping into the knowledge provided by Jung's psychological type
theory opens many more considerations of what it means to be a successful
CPS facilitator.

Table 4 provides a summary for each of the eight cognitive processes.
Table 4.

Summary descriptions of Jung's cognitive processes.

<table>
<thead>
<tr>
<th>Cognitive process</th>
<th>We attune to information about</th>
<th>Keyphrase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceiving</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraverted Sensing</td>
<td>External reality and interactions with the richness of the tangible moment</td>
<td>Live the experience</td>
</tr>
<tr>
<td>(Se)</td>
<td></td>
<td>&quot;What is&quot;</td>
</tr>
<tr>
<td>Introverted Sensing</td>
<td>Internal comparisons of an event to a set of established past experiences</td>
<td>Relive the experience</td>
</tr>
<tr>
<td>(Si)</td>
<td></td>
<td>&quot;What was&quot;</td>
</tr>
<tr>
<td>Extraverted iNtuiting</td>
<td>External generalizable abstract future potentials</td>
<td>Interpret the experience</td>
</tr>
<tr>
<td>(Ne)</td>
<td></td>
<td>&quot;What might be&quot;</td>
</tr>
<tr>
<td>Introverted iNtuiting</td>
<td>Internal visions and meanings of the future from conceptual symbols</td>
<td>Imagine and anticipate an experience</td>
</tr>
<tr>
<td>(Ni)</td>
<td></td>
<td>&quot;What it represents&quot;</td>
</tr>
</tbody>
</table>

(Table continues)
Table 4.

Summary descriptions of Jung's cognitive processes (continued).

<table>
<thead>
<tr>
<th>Cognitive process</th>
<th>Forms conclusions by</th>
<th>Keyphrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraverted</td>
<td>Externally organizing people and things to accomplish measurable and defendable objectives</td>
<td>Structure an experience</td>
</tr>
<tr>
<td>Thinking (Te)</td>
<td></td>
<td>&quot;Structure&quot;</td>
</tr>
<tr>
<td>Introverted</td>
<td>Internally analyzing for consistency and clarity with personally held principles</td>
<td>Analyze an experience</td>
</tr>
<tr>
<td>Thinking (Ti)</td>
<td></td>
<td>&quot;Analyze&quot;</td>
</tr>
<tr>
<td>Extraverted Feeling</td>
<td>Externally organizing and connecting others and with others according to their needs</td>
<td>Relate through an experience</td>
</tr>
<tr>
<td>(Fe)</td>
<td></td>
<td>&quot;Harmonize&quot;</td>
</tr>
<tr>
<td>Introverted Feeling</td>
<td>Internally aligning congruency with personally held values</td>
<td>Value an experience</td>
</tr>
<tr>
<td>(Fi)</td>
<td></td>
<td>&quot;Personally value&quot;</td>
</tr>
</tbody>
</table>

Wallas's (1926) outline of the creative process: Preparation, Incubation, Illumination and Verification, demonstrates the deliberate use of honoring
both extraverted and introverted attitudes attached to the cognitive processes. Preparation may be approached through introverted research (Si, Ni, Fi, Ti) and extraverted conversation (Ne, Se, Te, Fe). Incubation may hint at the need to introvert - to retract and reflect while engaging the mind in other non-problem solving activities (Ni, Si, Fi, Ti). Illumination may occur through interactions with the environment and the people in it (Se, Ne, Fe, Te) as well as through personal work (Ni, Si, Ti, Fi). Verification involves testing the insight with criteria to meet external requirements and standards (Te, Fe).

By using the psychological type framework as a guide, Wallas' process may be engaged by intentionally alternating focus between extraverting and introverting activities to access a variety of cognitive processes. A further investigation of conscious and unconscious processing may reveal how individuals of varying types map this sequence.

Benefits of Applying Jung's Theory of Psychological Type to Facilitating CPS

Facilitators facilitate to their own style covertly and may be unaware that others' styles might be different from their own. As a result they could potentially alienate and disinvolve participants whose cognitive processing function needs are not attended to.

Applying the knowledge of the Jungian cognitive functions to facilitating CPS can enhance the practitioners success rate at helping people experience a meaningful creative process while achieving the goal of finding a new and relevant solution to their context (Segal, 1999).
CPS facilitators who are aware of their own cognitive processing are freer to choose from a variety of approaches for each of the CPS stages rather than continue to honor only the processes that naturally occur for them.

Facilitators may be able to provide greater opportunity to connect with the cognitive processing of the people who have requested the facilitation, engaging them at a higher and more meaningful participatory level. When people engage processes they have not developed, the energy cost is great. Involvement and participation may be tedious when people are encouraged to use their less developed processes on an on-going basis.

Further, what may be archetypally a 'hero' process for the facilitator, may be a 'trickster' process for some participants. For example, the dominant 'hero' function of ENTJ is Te. For ISFJ, this same function appears in the seventh position, occupying the 'trickster' role. The hero for ISFJ similarly is in the 'trickster' role for the ENTJ. (See Tables 1 and 2.)

Facilitators aware of the energy cost for people using their less developed processes can adjust their techniques to honor each of the eight so that at least for some of the time, some of the participants are engaged in energizing ways. In doing so they also build trust and establish rapport.
Keirsey’s Temperament Theory

Psychologist David Keirsey’s work synthesizes observations of human motivations from the time of Hippocrates (450 BC) to the classical German sociologists Kretschmer (1925) and Spranger (1928) (Berens, 2000; Keirsey, 1984).

Keirsey’s Temperament theory, used in conjunction with Jung’s cognitive process model, adds further dimensionality to the needs of the facilitator, client and resource group. Expectations of novel and relevant solutions takes on different meaning depending on which of the four key value bases the client, resource group and facilitator operate from.

Table 5 describes the core drive or need of each Temperament theme and lists expectations regarding what each Temperament considers as criteria for a new and relevant solution.
Table 5.

Summary descriptions of Keirsey's Temperaments with criteria for new and relevant solutions.

<table>
<thead>
<tr>
<th>Temperament</th>
<th>Core drive</th>
<th>Criteria for new and relevant solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artisan</td>
<td>Freedom to act on impulse</td>
<td>Immediately doable using what is at hand while involving some risk</td>
</tr>
<tr>
<td></td>
<td>Ability to make an impact</td>
<td></td>
</tr>
<tr>
<td>Guardian</td>
<td>Membership or belonging</td>
<td>Builds on past success, easy to implement while conserving resources</td>
</tr>
<tr>
<td></td>
<td>Responsibility or duty</td>
<td></td>
</tr>
<tr>
<td>Rational</td>
<td>Mastery and self control</td>
<td>Efficiently integrates new knowledge and truth while providing intellectual intrigue</td>
</tr>
<tr>
<td></td>
<td>Competence and knowledge</td>
<td></td>
</tr>
<tr>
<td>Idealist</td>
<td>Meaning and significance</td>
<td>Develops human potential synergistically while aligning with values and ethics</td>
</tr>
<tr>
<td></td>
<td>Unique identity</td>
<td></td>
</tr>
</tbody>
</table>
Keirsey's Temperament themes align with the psychological type codes derived from using the Myers-Briggs Type Indicator. Table 6 shows the relationship of Keirsey's Temperaments to the MBTI type codes.

Table 6.
Keirsey Temperament Patterns and MBTI Type Connections.

<table>
<thead>
<tr>
<th>Temperament Pattern</th>
<th>MBTI Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artisan</td>
<td><em>S</em> _P</td>
</tr>
<tr>
<td>Guardian</td>
<td><em>S</em> _J</td>
</tr>
<tr>
<td>Rational</td>
<td><em>NT</em></td>
</tr>
<tr>
<td>Idealist</td>
<td><em>NF</em></td>
</tr>
</tbody>
</table>

People tend to generate and value solutions that match their Temperament pattern and meet criteria that align with the energy of their developed judging cognitive process. Individuals are more likely to approve of and use criteria sets that are different from their own when their needs are being met as well.
Benefits of Applying the Keirsey's Temperaments to Facilitating CPS

Understanding the motivational needs of the client and resource group gives meaningful insight to facilitators for anticipating the demands for session activities and to meet the desired outcome. The expectations of engaging in a CPS session for each Temperament pattern are unique and must be honored for healthy rapport and trust to develop between the facilitator and the client, and for all to be at their creative best.

If a CPS facilitator, for example, is working with a resource group of Guardians then using Guardian approaches (sequential thinking, responsibility, safety, and past successes and failures) will engage them. Using Idealist methods (integrative thinking, meaning and significance, making metaphors and using imaginative techniques for future impressions) will likely disinterest the group and not get at their best offerings without a warm-up exercise and some techniques used to reach their motivational homebase first. A Rational client may perceive Guardian or Idealist approaches to problem solving as trite and a waste of time because they do not meeting his/her motivational needs for differential thinking, competence, strategic insight and mastery.

A facilitator who is aware of his or her own Temperament pattern is freer to adapt to the Temperament needs of the client and group. He or she can use targeted appraisal with the client prior to the session to determine the nature of the CPS request (Artisan, Guardian, Rational or Idealist) and use relevant interventions and tools within each of the stages to help the resource
group meet the desired expectations. If the group Temperament is different from the client's, then the facilitator has language to use to explain his or her methods for reaching the desired outcome.

Having experienced and facilitated sessions with people of many Temperament patterns, the author discovered the value of engaging all four Temperament themes in a warm-up exercise. Doing released some participant performance pressure and anxiety, built trust and brought awareness to different styles and approaches to creative output. With the assurance developed, group members felt comfortable and willing to stretch beyond their Temperament need to engage in different kinds of approaches. They also perceived the facilitator as one who welcomes all input. They learned to rely on the facilitator's role of holding the space safe and collegial during the sessions.

An example of a warm-up exercise that accomplishes this is called the Expert Game (Segal, 2001). All participants are involved in generating questions and answers about nonsense occupations. In processing the experience, participants become overtly aware of the unique perspectives and energies in the room and they learn that each has the capability to 'think outside the box' in their own way.
Recommendations for CPS Facilitators

Recommendations for facilitators of CPS using Jung’s cognitive processes are presented, followed by recommendations based on using Keirsey’s Temperament theory.

Both frameworks may be used to survey your strengths in facilitating CPS in light of the hypothesis that facilitators facilitate using their own style. You can identify areas for your future growth and personal development by using either and/or both.

Being familiar with these frameworks can strengthen your ability to work with a variety of clients and group participants. Individuals with whom you work may be sophisticated in skills associated with some cognitive processes and Temperament motivations which you may not have had the opportunity to value and use.

Using Jung’s Cognitive Processes

Know thyself. Discover your cognitive processing and become aware of how you use, overuse, underuse and possibly not use each of the eight mental functioning energies. See Table 4 for an introductory description of the eight functions. If you know your four-letter MBTI code, use Table 1 to ascertain which preferences, by theory, you have developed and have yet to develop. Become familiar with the archetypal energies of each of your functions, listed in Table 2 and outlined briefly in Tables 3 and 4.
Experientially feel the impact of using skills related to a process you have in the unconscious field. Use this knowledge to empathize with a client or participant's experience of your facilitation if you fail to access one of his or her conscious functions.

Be aware that some people you work with naturally prefer to spend time diverging. Others naturally enjoy converging. Some people prefer to verbally diverge (Se, Ne) while others like to internally diverge (Ni, Si). Again with converging, some like to talk it out (Te, Fe) while others want to think it through (Ti, Fi). Know that your role as facilitator is to balance using both diverging and converging energies in orientation and quality.

Develop skill associated with functions that you feel less confident in. Doing so builds your resilience and capability to 'handle curves' put forward by client and resource group members.

Match the cognitive processes to each stage of CPS. In the divergent aspects make sure you touch base with all four perceiving functions at a minimum. Ask for information from the judging functions to elicit other meaningful input. When converging, stretch to include the complete set of judging functions.


In the Data Finding stage, for example, use the following triggers for diverging. The key concept for each process is underlined. The 'what' can be
replaced and added to the other key data finding questions - who, where, when, why and how?

Se - what is the current situation?
Si - what in the past has led to this?
Ne - what can be inferred from this situation?
Ni - what images or concepts come to mind?
Te - what organizing standards must we be aware of?
Ti - what incongruencies exist?
Fe - where is there harmony or disharmony?
Fi - what personal values must be considered?

Converging in Data Finding involves honoring all four judging functions, again, at a minimum. Some converging triggers to consider are:

Te - prioritize the data according to (external measures and principles)...
Ti - categorize the data according to...
Fe - which data most impacts the people involved?
Fi - which data is most personally valuable to you?

Using Keirsey's Temperament Theory

Investigate your drive or motivation for facilitating CPS. If you know your MBTI type code, then see Table 6 to discover your Temperament theme.

Apply the learnings from the Keirsey model to anticipate motivational energies that may be similar and different from your own. This is especially
important when discussing the purpose and intent of the CPS session with a client and while facilitating the resource group.

Be aware of and involve all four motivational energies in your session. To provide a trusting environment make sure to (a) affirm each individual's worth (Idealist), (b) generate new knowledge with strategic potential (Rational), (c) provide role definitions and demonstrate responsibility (Guardian) and (d) keep participants actively engaged and stimulated for impact (Artisan) (Segal, 2001). See Table 5 for a review of all four Temperament energies.
SECTION 2

HISTORICAL EVENTS THAT LED TO WRITING CREATIVITY AND PERSONALITY TYPE: TOOLS FOR UNDERSTANDING AND INSPIRING THE MANY VOICES OF CREATIVITY

Introduction

This section provides the historical timeline of pivotal events that led to the writing of Creativity and Personality Type: Tools for Understanding and Inspiring the Many Voices of Creativity (2001).

Historical Timeline

1975 - 1976. I was a student at Sheridan College in Brampton, Ontario enrolled in their one year Art Fundamentals program. Among a variety of art courses such as photography, printmaking, and drawing was one called Creative Problem Solving for the Visual Arts. The instructor, Carol Schiffleger Bobb, told us of a conference she attended for many years in Buffalo, NY, hosted by the Creative Education Foundation. It was called the Creative Problem Solving Institute (CPSI).

1977. I attended my first CPSI in June. Later that summer, with Carol's guidance, I decided quit my job in the federal civil service to attend Buffalo State College and study at the Multidisciplinary Center for Creative Studies.
My intention was to pursue a graduate degree in creativity and then come back to Canada to help the civil service be a better place to work.

1980. I graduated summa cum laude with a major in Anthropology and as the first undergraduate minor in Creative Studies from Buffalo State. I also became a volunteer leader at CPSI, a role that continues to this day.

1981. Graduate studies in creativity began.

1983. I returned to Toronto from Buffalo with most of the course work done. I hadn’t settled on a project or thesis that adequately inspired my curiosity.

1988. I was working as a creativity specialist in Research and Strategic Planning at Foote, Cone and Belding (FCB) an international advertising agency with Canadian headquarters in Toronto.

In November I enrolled in an MBTI® Qualifying Program and read in the Myers-Briggs Manual how creativity was associated with some of the preferences and not others. Myers and McCaulley (1985) wrote:

In type theory, creation of something entirely new should be related to a preference for intuition. Intuition is the mode of perception that is oriented to possibilities and the future, and to seeing hitherto unknown patterns. Creativity, therefore, is expected to be associated primarily with a preference for intuition (p. 176).
This didn't sit right based on what I had learned particularly using Kirton's assertion that each is creative and expresses that energy uniquely.

The wheels started turning, I began to question what I knew about the relationship of creativity with psychological type and to wonder if authors in type and in creativity may have been writing blindly from their own type bias or lenses on the world. Clearly the definitions of creativity in the type world were of narrower scope than how we understood it from the discipline of creativity.

1989. I applied to the Ontario Association of Personality Type (OAAPT), a local association of type users to present a workshop about the relationship of type and creativity and was accepted. My entree workshop matched the preferences i.e. E, I, S, N, T, F, J and P, with the definition of something new and relevant.

1990 - 1999. I continued to explore the relationships between the frameworks of type and Temperament in relation to creativity and creative problem solving. I studied the cognitive processes in depth and also worked with Dr. Linda Berens, director of the Temperament Research Institute who generously taught me about Temperament. Berens had been a student of David Keirsey's and she has singularly worked to rigorously expand upon his theory to make it more accessible. As a result of this in-depth study, I became aware that the type code for the MBTI could be used to access information about personality energies systemically, and that the code itself reveals much more that the sum of four letters.
I experimented with groups using different touch points of the cognitive processes and Temperament drives for ideational and problem solving breakthroughs. I started to meet with greater facilitating success. I wrote about it in OAAPT’s newsletter (1992, 1993), the newsletter for the Professional Marketing Research Association (1993) and in a type publication, TypeWorks (1994).

In 1994 I was invited to join Type Resources (TR) of Louisville, KY, as a Professional MBTI Qualifying Instructor and Canadian Associate. Type Resources was the first company to offer MBTI Qualifying Programs sanctioned by its publisher, Consulting Psychologists Press, Inc. Kathy Myers and Margaret Hartzler originated the program. I continue in this role today, leading TR’s Professional MBTI Qualifying programs and other type related trainings on average of 4 - 6 times each year in Canada and abroad.

After 1994 I began to submit proposals to conferences to speak about the relationships found between type and creativity - and they were unanimously accepted - Creative Problem Solving Institutes, Buffalo, NY; International Type Users Organization Conferences in Montreal, Pretoria, South Africa, and Singapore; International Creativity Conferences in Quebec City, Canada and Bloemfontein, South Africa, and Association for Psychological Type (APT) National Conferences, for example. Many local and regional groups of type and Temperament users also invited me to lead workshops in their areas: Boston, San Francisco, Newport Beach, CA; Louisville, KY, Dallas, Johannesburg, South Africa, and Oxford Psychologists
Press and Cranfield School of Management, Centre for Creativity in the UK. The Center for Studies in Creativity at Buffalo State College also asked me to speak at their Creativity and Personality conference in 1996.

Invitations to work with Master’s programs also began to arrive - to work with students to help them work effectively together for creative results. I taught in the Masters of Creativity program at University of Santiago de Compostela, the MBA for Electrical Managers at Universidade Federal de Rio de Janeiro, other MBA programs at Clark Atlanta University and Emory University’s Goizueta School of Business and for Master classes in Organizational Development at the Robert Milano Graduate School at the New School for Social Research.

During this time and throughout my years as a CPSI leader I became keenly aware of how leaders of facilitated sessions and led exercises that pulled on some of the cognitive processes, presumably theirs, and not others. The Temperament themes for the Institute appeared to be mainly Idealist, then Rational. When I met people from the other Temperament Types I was quick to ask about their experiences. They were relieved to find someone who understood their challenges from a type perspective. Year after year the Facilitating Creative Leadership programs' Developing Leadership Styles Leaders invited me to address their participants about the variety and needs of creative leaders from different type perspectives.

My activities led me to become known as the type person in the creativity community and the creativity person in the type community.
1997. I approached Davies-Black Publishing to see if they might be interested in my synthesis of creativity and type. Davies Black is the publishing arm of Consulting Psychologists' Press, Inc. (CPP) in Palo Alto, California. It publishes titles of applications of type in business - leadership, teambuilding, learning and teaching, and so on.

At first they were tentative and standoffish. They wanted to publish a book to compete with Julie Cameron's *The Artist's Way* (1992). Clearly my contact knew very little about creativity except that it was a popular/leading edge topic.

I was sent a new author' form to fill out (Appendix A). I found the information requirements overwhelming. I didn't feel that what I could complete of it would meet their assessment positively. I did not submit the completed form.

1998. The newly revised MBTI Manual was released. In it, the writings of creativity and type remained the same as in the 1985 edition. Myers et al (1998) included this passage in the research section relating type to creativity:

In type theory, creation of something entirely new should be related to a preference for Intuition. Intuition is the mode of perception that is oriented to possibilities and the future and to seeing hitherto unknown patterns. Creativity therefore is expected to be primarily with a preference for Intuition, and secondarily with a preference for the perceiving attitude, which gives curiosity and receptiveness (p. 191).
Despite my efforts to influence the type community about defining creativity as novel and relevant, the anachronistic and folkloric stereotype of creativity prevailed.

1999. Another publisher and friend, Dr. Linda Berens, Director of the Temperament Research Institute (TRI) and Telos Publishing approached me. She asked if I'd write 'the book on creativity and type.' Linda trusted my work because we had been colleagues for many years. She also wanted to scoop the competition, Davies-Black, who signed a contract with another individual to write a book on type and creativity that built from presentations I had given at CPSI and APT conferences throughout the years. I was delighted with Linda's challenge and agreed. The contract was signed in November.

The agreement included conditions to stay consistent with Telos' other publications. First, the work had to support a self-discovery process. Second, it needed to include a multiple model look at creativity i.e. Jung's cognitive processes as well as Temperament.

My desire for writing the book was to broaden and refine the scope of regard about creativity. My agenda included helping type and creativity professionals, as well as other interested individuals, know more about creating energies - what works for whom, so to speak - using linkages of studies in creativity with studies in psychological type and Temperament. I was motivated to impact researchers and practitioners in both fields so that their inherent biases about creativity and the characteristics of people who
'are' creative, the processes they use, the environments they influence to support it, and the characteristics they attribute to a creative product could be reconsidered given this new information.

My agenda also included showing people how to access their own creativity as well as how to inspire and facilitate other's creativity through becoming conscious of a variety of attitudes, expectations and specific techniques to use to meet client and group creative problem solving needs.

2000. In April I began writing while in Guatemala as a visitor to the RuaNova (Iberian-American Creativity Group) meeting and finished that December. Review copies went to respected people in the fields of creativity, type and organizational effectiveness. This year I was also recognized by the Creative Education Foundation as a Distinguished Leader in the field of creativity at large.

2001. The book is published and available on Amazon.com as well as the TRI/Telos website. We are currently in the process of marketing the work and arranging to have it carried in bookstores. The launch will be held on April 19th 2001 at Toronto's Metro Hall, sponsored by the local association OAAPT, who was the first to welcome the synthesis so many years ago. The Creative Problem Solving Institute has welcomed me as a spotlight speaker for their June 2001 conference and Northwood University accepted my proposal as a plenary speaker for their Creativity in Education conference this July.
SECTION 3

KEY LEARNINGS

Introduction

This section begins with what I've learned about the nuts and bolts of writing, continues with the emotional impact of engaging in the process and ends with key learnings and insights into my own creativity.

Nuts and Bolts of Writing

Writing is part of the process of authoring. Marketing and selling are also involved. I imagine it took about 20% of the total time to write including the editing and proof reading. The remaining 80% will likely be dedicated toward marketing.

To help the publisher market and advertise, for example, I've surfed the Internet for URL's that offer books on creativity and have begun to write to them to see if they will carry the book. Press releases will need to go out in conjunction with the books being available in stores. Interviews with the media are being planned to promote the launch in April. If writing the book was a birthing process, then its marketing it can be likened to the care and nurture of a new born. It's that all encompassing.

Being selective about what is contained in the book is important.
Publishing and printing cost money. It's a gamble for the publisher to invest
in a new writer. And the book has to sell. Sharing all information in one volume decreases the chance of people being able to afford to buy it.

Proofreading takes time. And more time. I thought the first draft would be enough. It wasn't. There were at least five rewrites that spanned throughout the process as well as in the final six weeks before we went to print. The professional editor entered the process for last few drafts and offered helpful comments about grammar, the over use of the word 'thing' and clear statements about her not understanding certain passages.

Involving others is a must. As well as the professional editor, others were invited to proof read the book and make comments. The reviewers who were able made significant contributions to the readability of the work. They also supplied pre-release testimonials to help the book look credible to others.

Networking helps tremendously. Support for the writing came from friends, colleagues, associates, and clients I have known for years. I was particularly delighted to be encouraged by selected retired faculty and those currently at the Center for Studies in Creativity.

Work with a publisher who knows the subject area. I was exceptionally fortunate to have worked with Kris Kiler at Telos Publishing. Already having a firm foundation in type and Temperament, he was curious and eager to learn about its relationship to creativity. Kris also served as motivator, hand holder, listener and deadline giver, and did it in a wonderfully supportive way.
Life happens. Computers malfunction, printers do poor jobs, social events occur, promises aren't fulfilled, and files get lost. It may be nature's way of saying take a break. I suppose a corollary to life happens is keep a smile on your face. Bend and twist with the energies and have faith that with perseverance and positive intent, all will work well in the end.

Emotional Impact

Writing the book involved a tremendous birthing process with all its incumbent emotions. Once published, post-partum depression hit. The feeling was a combination of relief and terror: relief that the massive undertaking was complete for the time and terror of what might happen next. This book scratched the surface of what I had synthesized and developed for 12 years. It represented my core passion, my message about creativity and revealed a critical portion of my privately held sense of truth and identity. Part of the terror of the post-partum period centered on my personal and professional 'coming out'.

The tedium of writing never occurred. I was always sure of what I had to say. One prevailing challenge was writing my complex thinking in a way that readers could understand.

I cannot overstate the impact of emotions on the writing journey. As an active member in the creativity community for more than 20 years my experiences have spanned the emotional spectrum from life giving, positive
and affirming through to motivationally draining, negative and self-doubting.

All these feelings came out of unconscious hibernation during the writing process. The positive emotions surfaced when I was so immersed in the process that anything outside of that was invisible, when I felt satisfied with getting my message out, and when others publicly affirmed my contributions to both fields of creativity and psychological type. The negative ones peaked too.

Certain authority figures in my past let me know in a number of ways that my thinking and curiosities were either misplaced or wrong. The passion about the truth, housed in my mind and activities for years, seemingly couldn't break through the emotional protection I had built to soften the impact of that earlier hurt.

Devastating memories reemerged into conscious awareness and led me to question my value and doubt my self worth. I felt imprisoned by the trickster potential of externally anticipated judgement. I imagined worse case scenarios where others would read the book and criticize it as puff or worse, ignore it as if it were valueless. I froze. The flow of writing stopped.

At a friend's partner's funeral last autumn, the pastor read a poem that moved me to contact her for a copy. I posted it on the wall over my desk and referred daily, sometimes hourly. One stanza in particular helped me center during turbulent times. It reads,
"Give the world the best you have and it may not be enough
Give the world the best you have, anyway."
Mother Teresa

When I read the poem I experienced freedom from those past debilitating circumstances. Its message spoke volumes. I felt welcome to write my truth. I met the challenge and continued to write with passionate perseverance, authenticity and confidence.

Persevering with the writing the book resulted in my becoming acutely aware of the impact of my emotional obstacles in creating. I appreciated being able to use psychological type theory, a grounded discipline in creative studies and a cyclical approach to help me exorcise moments from a painful past with honour, understanding, clarity, humour and forgiveness. Torment and mentor, both lead to new discoveries when one chooses to pay attention.

Insights into my Creativity

Through this experience I learned that my creative thinking is sparked when I perceive a meaningful incongruity. The beginnings of the book came from such a source. To honour true creativity, type professionals need to know more about creativity and creativity professionals, more about type.

I learned that to produce a tangible creative product a challenge must be given, almost as a dare. This occurred, for example, when Linda Berens asked me to write for Telos.
Through early work and experimentation, risk taking with groups, submitting proposals and finally in writing I experienced cycles of barrenness and fecundity, criticism and acclaim, just as there are cycles of the moon.

Emotional fluctuations are part of and not separate from the process. Integration of the emotional and cognitive processing in creativity cannot be underestimated.

Writing a book is both a journey and a destination. To think otherwise is folly. The full moon phase of illumination occurred from the seeds for planted at the new moon stage so very long ago.

Pivotal to the success of this entire process was my firm grounding in studies and experiences with creativity including the internalization of a key principle: turn obstacles into opportunities. That, coupled with self-knowledge from working with type and Temperament, helped me to understand and work through each phase.

Finally, the experiences that led up to and included writing and publishing this ‘novel and relevant’ product all contributed to strengthen my creating resilience. Through the twelve-year adventure I learned that my message of creativity includes self worth and value, skills and training to tame the creative beast within, a balanced mind that can appreciate many perspectives, public acclaim of a struggle successfully overcome, growth through partnership and a balanced heart that ebbs and flows with the needs self and others.

Hmm...I wonder what's next.
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APPENDIX A

Appendix A contains the Proposal Guideline Questions for Prospective Authors provided by Davies-Black Publishing.
PROPOSAL GUIDELINE QUESTIONS FOR PROSPECTIVE AUTHORS
PROVIDED BY DAVIES-BLACK PUBLISHING

Author Credentials

• Name your present occupations and title, professional memberships, and any prizes, honors, or special awards. Enclose your current vita.
• Provide your publishing history. List other publications, books, or published works. Are you a regular contributor to any magazines, newspapers or journals?
• Indicate whether your work has attracted special attention. Please describe.

The Proposed Book

• What needs did you observe in the marketplace that contributed to your desire to write this book? Describe the purpose of your proposed work. What are your primary objectives in writing? What do you hope to accomplish? How did the idea generate?
• How long have you been at work on this book? Does your work on this project involve a special kind of research? Please describe.
• What are your book's major sections? Provide a tentative table of contents, chapter outline, introduction, and sample chapters, if possible. Otherwise, please provide a current writing sample.

• What is the approximate length of your proposed work (in double-spaced typescript?) Describe the extent of tables, figures, artwork, worksheets, case examples, assessments, or other text elements.

• What is your projected manuscript delivery date?

• List the names, job titles, affiliations, and contact information of people who might give a content review of your manuscript.

Market Information

• Who are you writing this book for? How large is your identified primary market? What secondary or specialty markets would apply, and how large are they? Name professional organizations that are relevant and their membership size, if applicable.

• Is the target market already familiar with the concepts of the book? If so, how?

• Give the title, author, publisher, copyright year, and retail price of four to six recent competing titles and provide descriptive information on each. For each competing title, tell us in several sentences how your proposed book is different or surpasses what has already been accomplished.

• Identify the key features, benefits, and prospective sales points of your proposed project.