                    The Life Cycle of Creative Endeavors
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Background of the Life Cycle model

Creativity is often considered to be somewhat mysterious and unexplainable,
something that artists and inventors are naturally good at, and that is
based mainly on inspiration, intuition, and imagination. On the other
hand, there's the view of Thomas Edison, developer of the industrial
research laboratory, that "Invention is 5% inspiration and 95%
perspiration." Edison was being realistic about the more mundane work
that, despite how novel an endeavor might be, takes up the bulk of time and
effort in bringing the endeavor to fruition.

Intuitive inspiration -- emerging spontaneously, as it were, from the
unconscious -- must surely be acknowledged as being the irreplaceable germ of
creativity. But to inspiration must be added work, conscious reason, and
dedication if a piece of art, a novel scientific theory, or any innovative
project is to be realized in a form that others can appreciate and receive
value from.

This article presents a model of the creative process -- a map of nine
distinct phases of creative endeavors -- that shows how intuition and
reason naturally collaborate with one another, in a complex way, as an
endeavor unfolds. This model, The Life Cycle of Creative Endeavors, serves
as a practical recipe for guiding a creative effort, but it is more than
that. It reveals a natural phenomenon, a spontaneous dance of mental
forces, that enables an idea to flow smoothly from conception to
realization.

The Life Cycle model was developed, or rather discovered, as a result of
combining two different threads of investigation. The first thread was
this author's experience in the computer software industry, which consisted
of participating in countless innovative projects, playing many different
single-contributor roles, and exercising various degrees of managerial and
executive responsibility. Those decades of experience, with both
successful and unsuccessful projects, led to hard-won insights into how
projects and teams work, what blockages can occur, and what remedies are
effective.

The second thread involves the enneagram, an ancient analytical tool that
has recently achieved widespread popular exposure due to its application to
personality typology[1]. Indeed, in most people's minds, the enneagram is
identified with the nine personality types which that model describes. But
the enneagram is actually a much more general tool than that -- it is a model
of how an important class of processes operate[2,3,4] -- dynamic processes
involving certain kinds of interacting forces[5].

About the Life-Cycle diagram

The diagram shows the model's nine phases proceeding clockwise around a
circle, beginning with phase 9. Each phase has a title which describes the
primary activity that takes place there. Also at each phase is a little
pair of symbols in parentheses, and an arrow aiming off to another phase.

The arrows indicate subtle relationships among the phases. I call these
"wisdom indicators", and they appear to be much the same thing as Mr.
Blake's "intelligence lines."(4)   More about these later.

The symbol-pairs say something about the mental attitude which is
appropriate to each phase. In particular, they describe the configuration
of mental forces best suited to deal with that phase. The two primary
mental forces are reason and intuition, and each of these can occur in one
of three states: active (+), responsive (-), or neutral (0).

An active force drives mental activity; a responsive force supports mental
activity; a neutral force is one that is not participating in (primary)
mental activity. As there are three roles for each of the two mental
forces, so there are nine possible force configurations (or mental
attitudes) in all -- each exactly appropriate, as we shall see, for one of
the phases.

A tour of the Life Cycle model

We will now depart on a more detailed tour of the model and its nine
phases. Second-person syntax is used -- you are taken on a tour -- because that
makes the story easier to tell.

                    Phase 9 -- Encountering events (+, 0)

Phase 9 is where something happens to you. Typically, you take notice of
the event (9), choose a competent response (3), and carry it out (6). That
is routine activity, using only three of the phases in our diagram, all

connected by heavy arrows. Creativity enters the picture when some event
does more than evoke a response... when it sparks an idea. If the idea is
intriguing enough, you may be tempted to take the scenic route through the
Life Cycle diagram -- and pursue a creative endeavor.

Active reason and neutral intuition -- signified by (+, 0) -- is the ideal mental
attitude for encountering events. It is the same attitude adopted by any
safety-conscious, caffeine-endowed motorist on a high-speed highway, where
life-threatening events could arise at any time.

Along comes an event, you look at it with (+, 0) consciousness, and then
you consider your options. One possibility is that a choice is obvious, in
which case reason loses interest, you slip into (0, 0) consciousness
(reason and intuition both neutral), and proceed with routine activity via
phase 3. Another possibility is that intuition responds with an idea for
some imaginary option -- switching you into (+, -) consciousness and launching
you onto the (alternate) creative route via phase 1.

> Phase 1 -- formulating a goal (+, -)
> Arrow -> 4: identifying the problems to be solved

An idea is usually specific -- a fantasy of some imagined scenario -- such as a
wish that one could turn things to gold simply by touching them. When
formulating a goal (phase 1), you transform your idea into a description of
future reality, but one that is appropriately abstract. The goal captures
the important and desirable essence of an idea, while discarding the
secondary and the undesirable.

The arrow, to problems, helps with this refinement by reminding you to
consider the problems that would arise if your fantasy were to be
fulfilled. Kind Midas forgot about this arrow and asked for his raw idea
to be fulfilled -- leading to his own starvation amidst inedible gold objects.
If he had considered the consequences, he would have refined his goal
somewhat, so that things would turn to gold when he touched them, only if
he wanted them to.

A more interesting example is provided by Henry Ford. His original idea,
according to one biography, was to invent some kind of farm machinery. But
his genius began to shine through when he formulated the more abstract goal
to develop some product which could be mass-produced and mass-marketed.
This goal-generalization gave him more room to look for a solution, and, as
things turned out, enabled him to target a larger market.

Setting the optimal level of abstraction is like framing a picture with a
telephoto lens. Just as you shift the camera and adjust the magnification
until you get the most balanced composition from a certain viewpoint, so
you reformulate your idea at various levels of generality until the idea's
maximum leverage is obtained.

Goal formulation involves both reason and intuition. Reason actively seeks
to reformulate the idea, while intuition responds by imagining what the
consequences would be. When your goal is fully refined, then your
attention shifts to figuring out how you might attain that goal, and you
move naturally into Phase 2.

> Phase 2 -- exploring ways to attain the goal (0, -)
> Arrow -> 8: using the result

The goal, being framed at some appropriate level of abstraction, defines an
entire space of potential future outcomes -- namely, that class of specific
objectives whose achievement would satisfy the goal. Ford could have

started with the tractor instead of the automobile, and that could also
have fulfilled his stated goal, if not quite as spectacularly.

Phase 2 is devoted to exploring the space defined by the goal, in search of
the optimal objective -- the one most suited to current circumstances and best
expressing the leverage inherent in the idea and goal. Reason, having
dominated phases 1 and 2, is now given a chance to coast in neutral. The
contribution of reason has been captured in the well-formulated goal, and
it is now the job of unrestrained intuitive imagination to carry out the
subsequent exploration. Phase 2 is the most systematically creative part
of the overall endeavor.

The arrow (to using the result) is a very important indicator. It says
that the exploration process should focus on the the qualities of possible
futures, not the cost of their attainment. In other words, phase 2
exploration is a wish/fantasy exercise, not an exercise in cost-benefit
analysis. If many of the objectives uncovered are impractical, that is of
no consequence; but if some regions of future space remain unvisited due to
timidity, you may have missed your most promising options.

There are various stratagems that can be employed to boost the
effectiveness of this exploration. You might isolate yourself from the
distractions of daily life; you might surround yourself with diverse images
and stimuli; you might arrange for a group of people to join in a formal
brainstorming process. It is common, when organizations are beginning new
endeavors, for team members to be taken off to "retreats" where such
mechanisms are systematically employed.

Other techniques of exploration include simulation and prototype
development. These are ways to systematically envision, or even
experience, potential futures -- thereby enriching the effectiveness of the
exploration process.

In any case, and by whatever means, successful execution of phase 2 is
accomplished by a thoroughgoing and unrestrained exploration of the full
space of alternative objectives, resulting in a comprehensive understanding
of what goal-fulfilling options are open to you. When that has been
achieved, imagination runs out of steam, and you move naturally into phase
3.

Phase 3 -- Making a choice (0, 0)

Reason and intuition have done their part, creating for you a map which
shows all the optimal routes toward your goal. Phase 3 is a time of calm
review and contemplation. Intellect and imagination have been exercised
and can now rest.   It is only necessary at this point to survey the
results of their efforts and to calmly select the objective that is most
appealing and promising.

One may carry the burden of a puritan heritage and assume that endeavors
should be arduous -- "No pain no gain." Or contrawise, one may habitually
avoid options that seem unpleasant. Phase 3 is the time to set aside such
preconceptions and make a balanced judgement between considerations of the
short term (doing the work) and of the long term (enjoying the result.)
One of the available choices is to do nothing, to abort the endeavor, and
this would be exactly the right time to do so.

This phase comes to an end when your ponderings settle on one option as the
most attractive, and you feel thoroughly comfortable with your choice.
Having made your choice, the gravity of that commitment will make itself
felt, and you'll begin thinking of all the problems you'll need to

overcome. Your imagination aroused, you flow naturally into phase 4.

                    Phase 4 -- identifying the problems to be solved (0, +)
                    Arrow -> 2: exploring ways to attain the goal

Phase 4 is devoted to imagining every difficulty that might arise in
achieving the objective. This is a creative phase, not an analytical one --
you need to systematically visualize how this endeavor will unfold in your
particular environment, and foresee the obstacles and problems likely to be
encountered. Reason rests while intuition actively engages in this
anticipatory visualization.

You'll need to imagine all aspects of the endeavor, from funding to market
window, from design to production, from facilities to staffing (to use an
industrial example.) You don't need to solve any of the problems; you do
need to enumerate all the significant ones. Reviewing the remaining Life
Cycle phases is one good way to remind your imagination of where to look
for problems.

The arrow indicates an emergency escape hatch: in case you dig up some
surprisingly difficult problems -- ones which exceed the scope appropriate to
the endeavor -- it is possible to return and redo phase 2, aware now of the
additional difficulties in the chosen option. You'd then make a new choice
(phase 3) from your refined list of options, and begin phase 4 again. Thus
backtracking is accommodated by the model at an appropriate place and time,
with minimal wasted effort.

During phase 4 your imagination actively plays out -- mentally simulates -- the
carrying out of the endeavor. You might start at the beginning,
visualizing how you'll sell the proposal to top management (continuing the
industrial metaphor.) Or you might start with the completed product,
considering how it could be positioned in the market. You might want to
get a large sheet of paper and begin to list the classes of problems in a
circle around the center. You can then list subproblems adjacent to each
major category, and thus systematically generate a map of the difficulties.

There are two all-too-common pitfalls to avoid during Phase 4. The first
pitfall is to engage in premature planning -- starting to solve problems
before all problems have been identified. This is a distraction from the
task at hand and is likely to seduce you into leaving Phase 4 early and not
discover major problems until it's too late too deal with them effectively.

The other pitfall is to approach problem-identification in an unbalanced
manner -- to focus on familiar or interesting problems instead of giving equal
attention to the full gamut of project difficulties.

Phase 4 ends when your intuition can't think of any more problems. Having
exhausted itself, intuition rests, and your reason begins to analyze the
difficulties, moving you naturally into phase 5.

                    Phase 5 -- making a plan to deal with the problems (-, 0)
                    Arrow -> 7: realizing the goal

This phase is devoted to figuring out how to achieve the objective despite
all the problems that have been identified -- to make an implementation plan.
Reason responds to the problems not as obstacles, but as design constraints
for an appropriate solution.

The arrow points out that the ultimate purpose of the plan is to realize
the goal, not just to set out a work plan that solves all the problems.
Your goal might be to have a relaxing interlude, but by the time you

accomplish your objective -- a booked holiday -- you may find your itinerary
precludes relaxation.

Many products have been engineered which failed to serve customer needs,
because the product specifications somehow lost sight of the end-user
(customer.) The enneagram arrow is pointing out that final product plans
need to somehow be verified against user needs, that appropriate feedback
channels need to be established between the planning process and customer
requirements. Recent successes with such feedback channels have led to a
revolution in "user friendliness" in modern electronic products.

In order to plan competently, it is necessary to first internalize the
problems -- to absorb them into the core of your thinking process -- just as a
composer must be intimately familiar with the qualities of the different
musical instruments, or an architect must thoroughly understand the
building site and and other requirements -- before the planning process
begins.

In order to do well in this phase you need to have strong analytical
skills, and the ability to architect a coherent scheme out of diverse, but
mutually interacting, requirements. The backbone of the plan is your
vision of how events should best unfold, a vision which comes from inside
your head. The identified problems simply serve as a checklist, to test
the completeness of any draft plan.

This phase transforms thinking about a project (all the internal and
external exploring we've done in earlier phases) into a plan of action to
accomplish the objective. The timely success of the project depends on the
completeness, accuracy, and orderliness of the plan. Defects in any of
these areas may cause delays, confusion, extra costs, duplicate work, and
an unsatisfactory result.

As with all the other phases, there are two specific pitfalls to avoid:
spending too little time in the phase, and spending too much time in the
phase. In this case, spending too little time means beginning
implementation before the plan is complete. This is tempting in our
dynamic, "Just do it" society, but is nonetheless unsound. Spending too
much time means polishing and refining (or redoing) the plan beyond the
point of utility, thereby delaying the project.

                    Phase 6 -- Doing the work (-, -)

This phase is devoted to getting the work done -- carrying out the plan -- and
thereby achieving the objective. This is the central point in the
endeavor: the earlier phases were all aimed at setting things up so the
work could proceed, and the later phases are all based on the results of
the work.

The best mental attitude for this phase is a balanced attention, supported
by both reason and intuition, as the occasion demands. As the work
proceeds, reason and intuition respond cooperatively to any difficulties
that arise, combining their energy to keeping the ball rolling. This phase
has a flowing quality, one step smoothly into the next -- provided the earlier
phases were carried out properly.

                    Phase 7:   realizing the goal (-, +)
                    Arrow -> 1:   formulating a goal

Completion of Phase 6 represents a culmination of several threads of
endeavor: the work is done, the plan carried out, the objective
accomplished, and the goal achieved. Phase 7 is devoted to acknowledging

these completions and to owning your new situation. This phase is your
graduation ceremony.

In the case of Henry Ford, Phase 7 occurred when the first batch of Model
T's came off the assembly line. At that point, Ford became a man with cars
to sell, rather than a man developing a production process. It was
necessary for him to adjust to that situation before he could move on
effectively.

This adjustment process is facilitated by active intuition and responsive
reason, engaging in a kind of "Let's Pretend" learning game. Your
intuition actively imagines situations that will arise in your new role,
and reason helps you evaluate those fantasy-situations and see what can be
learned from them.

The arrow invites you to reflect back to when you originally formulated
your goal. Do you feel how you imagined you'd feel? Was it all worth it?
This is an opportunity to refine and acknowledge your goal-setting skills.

If this phase is rushed, then you leave yourself off balance in facing the
next round of challenges. If this phase is overly prolonged, then you're
betraying the work already done by not moving promptly on to application.
The point is to internalize your new situation so as to prepare yourself to
make use of the result of your endeavor, which is Phase 8.

                    Phase 8:   using the result (+, +)
                    Arrow -> 5:   making a plan to deal with the problems

With your goal achieved, and your new situation internalized, it is natural
that intuition and reason would be aroused to actively exploit the fruits
of the endeavor, to make use of the result. This is where you enter your
new career or launch your new product -- getting to this stage has been the
whole point of the endeavor.

This is an intense, all-cylinders-firing, action-oriented phase. You're
out there in the marketplace, going for it. You adjust on-the-fly to
unforeseen circumstances. If a competitor steals your thunder on a leading
feature, then you reposition your product and change the advertising. This
is the most spontaneous and unpredictable phase of the endeavor, and for
the right people, the most exciting.

The arrow says to look back at the project plan, providing an opportunity
for learning. In trying to use the result, all the defects in the plan
will become immediately obvious. If the market demands removable guard
rails, and you don't have them, your sales will suffer and you'll notice.
This is the time to learn as much as you can about how your plan could have
been better, what problems you failed to foresee, and why. This is where
growth occurs in the general ability to carry out endeavors.

Eventually the newness of the invention fades away. Pretty soon it's just
one more product in the catalog, no longer the hottest kid on the block.
It has become part of the status quo, the routine. And so you find
yourself back in phase 9, with a new definition of the status quo. Thus
the Life Cycle goes right on spinning.

What does it all mean? -- reviewing the Life Cycle

You now have an understanding of how a creative endeavor can systematically
unfold, guided by the Life Cycle model, which strives to capture the
natural flow of the mental forces involved. There is a natural ebb and
flow of these forces as the endeavor reaches each phase. Intuition and

reason are like partners who share responsibility for the project by each
contributing their best skills at the right times.

Out of routine life arises desire for change. A raw idea is refined into a
goal, which is further refined into a concrete objective. A decision is
then made, the consequent implementation problems identified, and a plan
made which takes them into account. The work is then carried out, bringing
the innovator (or team) to the realization of the goal. The result is then
exploited, and eventually becomes part of the everyday routine.

This model can contribute in various ways to the success of endeavors. Not
only can it be used as the basic paradigm around which a new project can be
structured, but it also serves as an excellent diagnostic tool whenever a
project gets in trouble.

Suppose you're a consultant sent in to find out "what's going on down
there" with some project that seems to be fumbling along and is unable to
report what's going on in a way that makes sense to management. The first
question you'd want answered is "What phase is this project in?" In
answering that question, you'd probably already know 80% of what's wrong:
different people are probably in the midst of conflicting phases. Perhaps
the design engineer is still changing the specs, while the testing engineer
is implementing now-outdated procedures. Achieving clarity on where the
project is, what should have already been decided, and where attention
should now be focused, is generally what most faltering projects need help
with.

Once you know what phase the project is currently in, you'll next want to
find out what happened in the earlier phases. What you're likely to find
is that some previous phase was handled unconsciously, without recognizing
what really needed to happen there, or perhaps skipped entirely. I've seen
projects go directly from goal identification (phase 1) into implementation
(phase 6) with no intermediate steps. Such a project can meander
endlessly, or can come up with a result no one is interested in. If you
encounter such a project underway, it's necessary to go back and carry out
the phases that were skipped. This may invalidate some work already done,
but the sooner this project replay is carried out, the better.

The Life Cycle model is applicable to all kinds of endeavors, of whatever
size or duration. Even for simple projects, like buying a car, giving each
phase a bit of conscious attention can significantly expand the
alternatives considered and enrich the outcome.

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A note to readers of Enneagram Monthly

The basic model behind this article, and the previous article(5), was
developed in 1988 when my only knowledge of the enneagram was from a few
days of verbal presentation of the nine personality types. The two-force
hypothesis, the identification of the energy configurations of each of the
nine positions, and the childhood-scenario hypothesis all came from first
principles without reference to other work.

After later reading the material referenced in the bibliography (above), I
found that the enneagram is indeed used to model processes, and that is in
fact the purpose which Gurdjieff described for the enneagram. However, in
nothing I've read have I seen anything resembling the two-force hypothesis,
nor the childhood-scenario hypothesis.

The two-force hypothesis, if it stands, would seem to be a significant
clarification and de-mystification of what the generic enneagram is about.
And the childhood-scenario hypothesis not only indicates an origin for the
fixations, but also shows how the personality enneagram is actually itself
a process enneagram.

One very interesting observation is that each of the personality types
happens to be an expert in that endeavor phase which has the same number.
Thus a nine is good at routine events, a five is a good planner, an eight
is a good exploiter, etc.   I wonder if any readers might have a theory to
offer as to why this is.

-Richard Moore