

Sparking potential ideas of 'best-fit' for design- work: a conceptual model for research

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Abstract

There is considerable interest within the design research domain in the possible cognitive functions and actions as 'design thinking' is used. This proposal commences with reference to Senge who suggests, "Truly creative people use the gap between vision and current reality to generate energy for change". He drew from the musician Fritz, who proposed, "It's not what the vision is but what the vision does," (1990, p.153). The imagined ideal in a vision seems to act like a spike setting off self-urging creative intuitions and insights and instinctive reactions. A conceptual series of diagrams will develop these insights where an imagined ideal is to be set up as the vision as the anticipated experience of a 'best-possible-self' with success, where emergent 'ideas-of-best-fit' closely match the designer's goals and desires. The triggering mental actions required are similar in form to De Bono's technique based on 'Six Colored Hats' (1985). In this project, however, the practitioner adopts an overarching meaningful ideal for a 'hat' in the form of an experiential clear sense of success as motivating ideations emerge, such that these closely match their goals and desires as a 'best-possible-fit'. The model is also potentially transformative as the visioning ideal could be framed such that any emergent effects of encoded formed bias or a self-limiting psychology could be effectively reduced or eliminated through the applied created differential as a 'generative gap' for the self. This paper will further suggest how this envisaged ideal of success could be experientially explored through co-creative action cycles of research in different design-thinking domains.

Keywords: design-thinking cognition, creative visualisation, transformative research, generative futures

Creative and innovative ideas are required at every stage of activities in designing solutions or a possible prototype for a product or service that meets some kind of an ambition or brief. Prior to imagining possible solutions and prototypes, clear insights and judgments are needed in defining the current state of requirements and the possible gap between what is known or available and what could best fulfil the ambitions of the designers and clients. Then, as various imaginings come forth and are considered in turn, further judgments are needed to decide on which ones to adopt and develop, and the best possible pathways of actions to follow in achieving success.

This paper is to develop a conceptual framework for testing through collaborative research that is to be focused on asking the question of whether there is a possible way of effectively sharpening and enhancing the creative and intuitive or judgmental activities the practitioners

enact. The aim is to establish an action-oriented mental model which is based on a vision of a possible best self experiencing success in the ways the practitioner(s) bring forth and determine the very best and most supportive insights and ideas for their designs and their actions, thus successfully meeting their aims and ambitions within the design brief they enact. This paper is being developed using the devised mental model with expectations that the results could be taken up and investigated as a design research activity, both for the individual and the individual in groups within different design-work domains at all levels and scale.

Literature Review: Conceptual Framework Development

There is an array of invented design-thinking tools and activities that assist in the process of what Wallas (1926) through to Cross (2011) and others more recently such as Taura and Nagai (2017), refer to as the forms of creativity and related “designerly cognition”, including the application of the further judgmental and selective cognitive activity and knowledge that could be brought into play as the design-work proceeds. Several scholars from the Editorial Board of the International Journal of Design Creativity and Innovation (IJDCI) in 2013, suggested that, “...despite extensive studies of innovation and the introduction of hundreds of tools and techniques that purport to assist in creativity, the topics in general and their role in design in particular are incompletely understood.” (citing McMahon from this Board, p.4).

VanPatter and Pastor from the Humantific organization have offered a close critical analysis of the range of approaches and processes involved in both the “sensemaking” and “changemaking” activities that constitute design-work at four different operational levels (2016). Similarly, albeit with a simpler analysis, Cropley and Cropley (2009) provided a critical exposure of different developed techniques for “generating novelty” and the “critical evaluation” that could be brought into play as the design-work proceeds. These techniques included, “a) reversing the problem, b) considering the end result, c) focusing on the dominant idea, and d) discarding constraints” (p. 216-223). The proposed conceptual framework and model will work with part b) in particular although it could be applied in all forms of the elements constituting design-work activity, and at all of the four levels as VanPatter and Pastor propose.

The conceptual framework for this paper is not concerned with analyzing the different cognitive functions that are brought into play and combined by practitioners in different design phases and contexts. A critique of the literature on research into the various actions that could be brought into action within the cognitive process of “coming to know in the moment” is being developed elsewhere (Easterley, forthcoming). The most important key aspect of relevance to the proposed conceptual framework and model being revealed through this paper is to suggest that the whole range of the possible cognitive functions that designers engage would have a similar triggering generative dynamic at play, as well as a subconscious generic form of an ordering shaping and process that would be brought into action through this dynamic, with the emergent streaming of the results in one’s consciousness then being classified as imaginings or insights, or selective judgments, for instance, accordingly. Similarly, without diving into reviewing the question of whether the agentive source is

considered to be an act of the brain's neurons or of some kind of an immanent creative intelligence or consciousness, it is considered essential to accept there would be some kind of driving/ guiding and triggering agency as a mechanism behind each kind of designated cognitive action, including the directed human attention and focusing that would be brought into play as the emergent gestalt is then triggered and shaped.

The design phase for this research begins with Figure 1 that shows how the various elements are to be teased apart and considered. This diagram is intended to illustrate the presence of certain triggering dynamics that are likely involved in creating a physical <differential> or spike, which then behaves as the activator to the sparking cognitions and sentience plus actions that follow. It also illustrates how to separate the role of possible factors as filters that are directly responsible for the shaping and ordering of the emergent results.

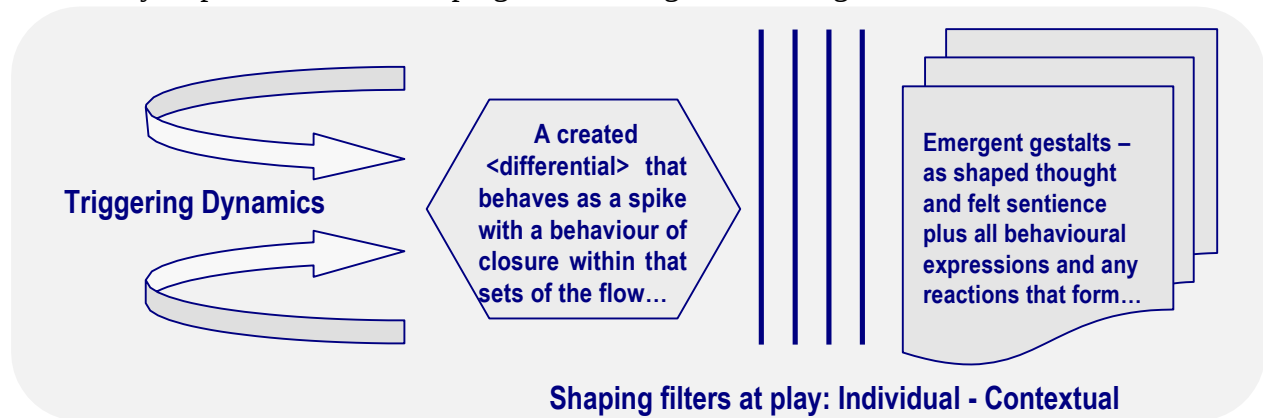


Figure 1: Teasing apart the different components in the cognitive functions at play as design-thinking is used

It is important not to ignore or jump over the essential triggering dynamics that are formed in the shape of a created <differential> or spike. This form of punctuation is used in the same manner in which the symbol for <enter> is used in IT systems analysis and coding: the symbol suggests an initiating and triggering action of energizing activation is being created and set off in the system. This triggering spike as the spark is assumed to also set off the shaped ordered flow of the emergent fired neuronal activity that can be picked up through the brain, as well as the form of the realized ideas and insights the practitioner discerns, both of which are closely correlated in form (e.g. Crick & Koch, 2003). This proposed <differential> thus would also be responsible for triggering the emergent felt urges and hunches as intuitions might form, and perhaps also excite further refinements or reactions of sorts as the intuition is followed. This <differential> seems to behave in the moment or as the design-work develops, much like Maslow's conception of there being a set of "actualizing potentials" at play within the developing child (1943).

The Generative Role of a Vision in the Triggering Dynamics

Much has been done in psychology involving an examination of the seeming automaticity that's triggered through the setting of personal desires and aims as a goal, and thereby to the

requisite forms of possible self-regulatory behaviours that follow in achieving ambitions (e.g. Baumeister & Voh, 2004; Boekaerts et al, 2000; Gollweitzer, 1993). The proposed conceptual framework for this paper is to connect the idea of a purposive desire and intention that the practitioner brings forth and holds, with the resulting emergence of the shaped ideas and insights they realize and can further develop. A proposed conceptual model from Carver and Scheier (as cited by Carver in Baumeister & Vohs, 2004, p.13-39) suggests the equivalent of a cybernetic system could be brought into play. They likened the shaped form of a goal such that it would act like some kind of an “attractor” to the desired motivations, and the behavioural actions and thoughts, that could lead the practitioner towards satisfying their ambitions and goals.

This notion of there being some kind of triggered creative, energising and motivating action that results from a held desire as a goal, has been picked up by Senge, who drew on the musician and composer, Fritz (1984), to suggest there is a critical importance in the energizing role of a held personal vision, and the creative impetus and power this seems to invoke. Fritz surmised how this works from his experience to suggest, “It’s not what the vision is, it’s what the vision does”. Senge then adds the observation, “Truly creative people use the gap between vision and current reality to generate change [and creative actions for such]” (1990, p.153 with my added interpretation). He proposes:

“The juxtaposition of vision (what we want) and a clear picture of current reality (where we are relative to what we want) generates... ...a ‘creative tension’: a force to bring them together, caused by the natural tendency of tension to seek resolution” (p.142).

Realising the Creative Tension at Play through a ‘Design-Pull’ Psychology

The next step in this model development is inspired through the observable evidence of there being a direct correlating connection between the shaped form of the held goal or an intention and the emergent shaped thoughts that seem to be triggered. This can be seen for instance in the application of De Bono’s ‘*Six Thinking Hats*’ technique (1985) that relies on the players adopting the meaning that each hat colour suggests, as they bring forth creative ideas and insights for their strategic decisions and actions. So, if the idea of a hat is extended to include the articulated form of a personal goal as a vision of the experienced [Future-Self] with successes, then this could behave like an attractor to the emergent ideas and insights the designers might elicit and use.

Square brackets are to be used in this case to suggest this imagined [could-be] could come into existence as a temporary virtual state for the self that has been created in form.

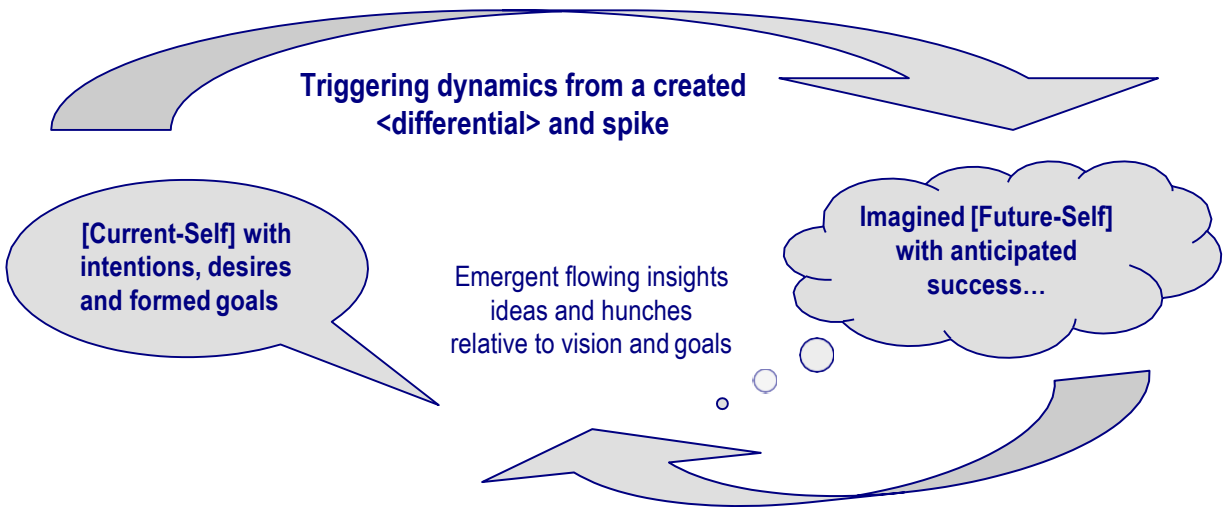


Figure 2: The structural generative dynamics at play set up at the start through the [could-be] of success

Figure 2 sets out a possible way of interpreting this close cybernetic relationship that will behave as if the creation of the <differential> is virtual but has a physical impact, as it thereby becomes the activator and the spike to the emergent results. The captured <differential> thus behaves like a spike with an internal behaviour of closure, thus thereby triggering the implicate ordering and shaping of the the realizable gestalt, which the practitioner could feel and discern as this happens– or not.

This deliberate shaped form of the personal action of visioning is to be adopted as the central key component for triggering the potential unfolding actions, decisions and outcomes that could be set off to form as the design-work proceeds. It is critically important to note that this idea of an imagined anticipatory [Could-Be] of experiential success will clearly focus reflective attention on the practitioner and not directly on the nature and form of the eventual designs they produce. Related to this is the understanding that innovative designers have been switching attention to the epistemological position of conducting their design-work through satisfying the potential user- centered experience that could be built into the designs they produce, such as in IT, or the design of solutions they offer to some kind of an unresolved societal problem. In the case of this model being developed, the user(s) are the designers whose ideal future [Could-Be] of experience is one of success, and this then becomes the vision to which they would cleave.

A [Best Possible Self with Success] as the Future Experiential [Could-Be]

The actual form that this imagined [Future-Self] takes is derived from research that began with the emergence of studies based on “salutonic” (Antonovsky, 1987) and “positive psychology” (Seligman & Csikszentmihalyi, 2000) and the various forms of future oriented “possible selves” that seem to motivate ideas and well-being (Markus & Nurius, 1986; Ruvolo & Markus, 1992).

As research into the potential effects of future possible selves advanced, researchers such as King started to work with the notion of a “Best Possible Self” (BPS) as the motivator of well-being and hope (2001). Loveday et al (in press) offers a critical review of the research activity that followed, which has shown it to be a “viable intervention for increasing optimism, positive affect, health and well-being”. Further research in progress from Loveday suggests, “additional outcome variables as hope and appreciation could be added as potentially enhancing efficacy the more the imagined BPS state is activated”.

King’s research activity is based on the subjects writing about their imagined or intuited [Best Possible Selves] in a positive manner. The proposed conceptual framework for this new research project will take this idea a step further by creating an articulated [Could-Be] for the imagined [Best Possible Self] that enjoys the experience of all emergent success. However, instead of just writing about the experience and actions that might be envisaged, the conceptual framework is to be based on switching the personal writing process around such that a script is developed from this future positioning, and written just AS IF the whole range of successful possible design- work experiences have already been realised in the best possible form they could take – even if the practitioner does not yet know just what form that could become.

Potential Effects from Self-Limiting Beliefs and Behaviours in Context

The third step in this constructed framework and model is to offer significant recognition to the importance of the practitioners becoming aware of, and managing, their inherent potentials for bias and other unconscious self-limiting and contextual inhibiting factors at play (e.g. Kahneman 2011). These possible factors are thought to be acting like filters that shape the emergent gestalts. Figure 1 showed where these shaping and ordering filters are placed in the phased flow of the triggered cognitive actions. Now, Figure 3 illustrates how the conceptual framework recognizes and accommodates this requirement, showing the kinds of the individual and contextual filters that could be brought into play in an autopoietic, systemic and naturalistic fashion, through time.

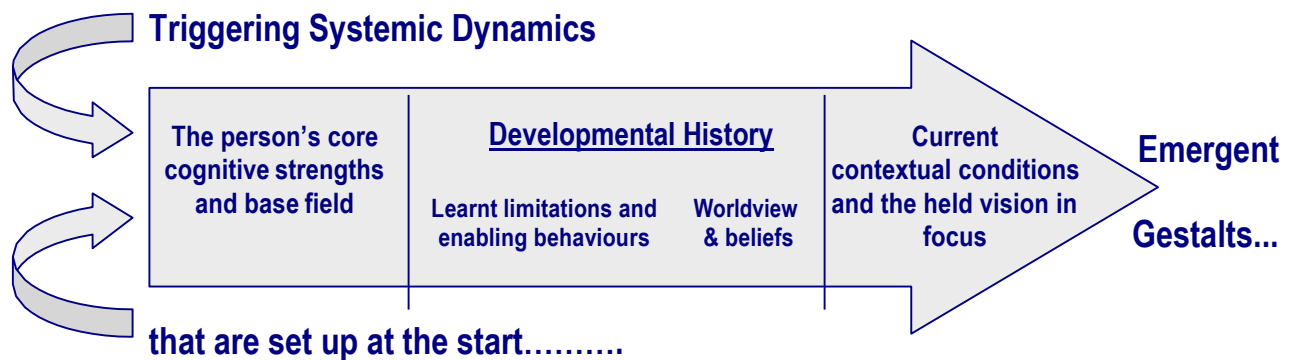


Figure 3: The filters and factors that are brought into play through each projected [could-be].....

The proposed conceptual framework and model is to respond to this aspect through the

notion of the imagined and anticipated emergence of a [Best Possible Self] as the potent future [Could-Be] is also experiencing success in identifying and managing any emergent effects of encoded self- limiting old fears or doubts and the adopted related behaviours or trauma, which could interfere with the individual's potential success. Each practitioner would be advised to adopt a praxis of mindful self-focused reflective activity as their particular thoughts and emotions emerge through each phase of their design-work activity, from focusing in on what Argyris with Schön (1989) suggests should be a “double-loop” process of considering both the organisational and political contextual factors and possible inhibiting limits to what could be possible in their design-work, as well as the possible contributions their own personal factors and bias might be making to the filtering actions that are set off by the spike.

The use of Causal Layered Analysis (CLA) proposed by Inayatullah (as cited in Bussey, 2014) would be a useful reflective technique to also adopt. The role of the [Best Possible Self] as a vision in this proposed new conceptual framework and model is to thus be expanded to include the idea of the anticipated experiential success for the self that is also including the anticipated effects of a potential transformative change that could be invoked through the iterative phases of the design-work activity (and beyond them as well).

Methodological approach: discussion

The epistemological positioning for the methodological approach follows from Feast and Melles (2010) who highlight the idea suggested by Cross for research into “design praxiology: the study of practices and processes of design... [as] tactics or strategies” (cited in Feast and Melles, p. 3). In this light, however, instead of using a constructivist stance based on studying the practices of leading designers and creative practitioners, this project aims to design a methodology that is to be pragmatic and grounded in the design-thinking process itself, through engaging with potential collaborative investigators in using an action-oriented and subjective lens for their investigating the application and utility of this proposed conceptual model in practice. The developed ideas and approach would have to involve some form of an iterative cycle of co-creative collaborative investigation and learning through the participants working with an experiential engagement and testing of the proposed framework and model. Guided imagery for the future [Could-Be] along with the use of a personal back-casting process enacted through self-focused script-writing is to be used at the start in establishing the most representative imaginings of a [Best Possible Self] with success in the contributions then made, even though there is no demand for ideas of just what that future state might contain at the start.

Some form of possible pre- and post-interventionist design of such an instrument for testing might be the best method to follow, although the author as chief design research investigator would welcome any alternative ideas and suggestions that could be assessed as a prototype.

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Author Biography

Marieka Easterley BSc(Hons); BCom; GDipLib

My background is mixed as I transitioned away from two undergraduate degrees dependent on performance-based learning and began to focus my interests on developing a pragmatic action-oriented philosophy and praxis based on experiential learning and research with the intention of bringing out the very best in myself and in others. The conceptual notion of a self-focused form of an imagined [could-be] that is based on the emergent experiences of a best possible self with the potential for making effective decisions and actions to bring this about, now forms the basis for the current practice-led research and associated educational materials I have designed for this purpose. I am currently in receipt of a highly valued University Postgraduate Student Research Scholarship for the purpose of undertaking a Doctorate of Philosophy at the University of the Sunshine Coast in Queensland, Australia. Conference attendance and co-creative enquiries and learning with design-thinking and futures studies practitioners, where possible, form an exciting key part of the academic life I now live and desire to expand.

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