



Discovering How to Do Reflexivity and Self-Reflexivity. A Longitudinal Empirical Research Findings

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ABSTRACT

Reflexivity is known to be a mental process where a person takes distance to oneself to analyze and take a critical perspective over own feelings, thoughts and actions in order to realign own practice or meaning and even create new ones. Reflexivity is therefore a form of metacognition reaching a state of mind's acute awareness. The reflexivity's functionality has been recognized as valuable to improve and innovate professional practices. The main gap in research and literature is to explicate how to do reflexivity and most of all, how to apply it to all aspects of human life toward self-actualization. This research aims at answering at: How to Do reflexivity and Self-Reflexivity? To answer this question a 17 year-long longitudinal Action-Research investigations reveals how to do and learn to practice reflexivity. This paper also reveals how reflexivity can be applied to aim at one's well-being and self-actualization. The discussion addresses the long-term benefits of practicing reflexivity coupled with mindfulness as an ability to reach self-liberation and better resilience capability.

Keywords: Reflexivity, Metacognition, Mindfulness, Innovation, self-actualization

INTRODUCTION

Reflexivity is most often studied as the metacognitive ability of a professional to analysis one's own practice to improve it (Dierckx et al. 2016, DiSalvo 2016, 2013, Lafortune 2009, Lafortune & Robertson 2004). It requires a metaconsciousness reaching a high level of self-awareness over one's own thoughts, feelings, decisions and actions such as self-conduct in social relation within a profession's framework to reach its full optimization (Roy 2015, Lafortune 2009, Daniel et al. 2004, Estrela 2001, Chalmers 1996)).

Once this reflexivity competency is mastered in a field, such as professional context, it can be applied into other sphere of one's life. Ultimately, reflexivity becomes an applied metacognitive ability to drive one's best professional practices as well as a better life experience at a larger scale. Reflexivity goes beyond a metacognition which focusses on thoughts because it leads to action in the real, concrete world (Gallagher 2007, Gallagher et al. 2021).

While reflexivity, mindfulness and metacognition have been studied in several fields for medical therapy (DiSalvo 2013, McEwen 2000), interpersonal competency development (Lafortune et al. 2004, Vinatier 2012, Verreault 1992), education (Lafortune et al. 2004, St-

Arnaud 2009), neuroscience (Hines 2018, Hoza 2016, Hopkins 2022) and professional development such as management (de Verlaine 2022, Fronty 2017, Meunier 2013, Rouchi et al. 2017, Lafortune 2009, Lafortune & Robertson 2004, Galand et al. 2004, De Waele et al. 2001), it mainly focusses on its functionality and its positive impact on the practitioner. Neuroscience and psychology go as far as indicating exercises to improve the brain activity and psychological therapy with reflexivity (DiSalvo 2013).

A vast literature explains how to do mindfulness aligned with meditative practices (Ditrich 2017), but it doesn't link it back with reflexivity practices. The literature explains how valuable metacognition's reflexivity is exploring its functionalities and its benefits, but it lacks in explaining how to do it (Popoveniuc 2013). This research aims at this practical question: How to do reflexivity and self-reflexivity? Answering this question reveals how anyone can do reflexivity which will democratize the ability to self-actualize and access this learning and knowledge creation capability.

Research Problem

To answer this question, we need to clarify the object of study to distinct reflexivity from reflectivity, metacognition, mindfulness, consciousness and meta-consciousness. Indeed, all these mental activities offer different functionalities which need to be distinguished from one another to monitor the actual discovery of reflexivity as such.

A reflective practice means to take distance at the passed practices, a form of lessons learned practice, to identify what went well and what went wrong or not as expected, to find potential adjustments to improve the approach or tactics to improve best practice in future similar instances (Lafortune 2009, St-Arnaud 1988, 1996). It becomes a form of insight and introspection into what happened to figure out which known better practices in terms of thinking, actions, and even reframe the feeling experience with this new insight on the matter.

Reflectivity is therefore similar to the metacognitive practice where the person takes distance from own thoughts but to go a little further and align the thinking process with a formal and theoretical best logic (Daniel 2004, Dierckx et al. 2016). As a generic example, a reflective process would look at the approach a professional answered to the client's needs. It would look at the key moments where the client may have presented some frustrations. The professional would then look at the manner the active listening techniques may be improved to prevent client's discomfort, and better understand the client's needs to act more effectively. The metacognitive process would complement the reflective practice by seeing that the client service conceptual frame of reference adopted in this situation is a service providing approach. Once the listening practice is reviewed, it would allow to better see that the client's intent was not to get a better professional service, but to complain about the service. It would therefore mean in a metacognitive reflection process, that the professional client-listening technique would allow to distinguish the client's intent to get a better service or to make a complaint to select the proper frame of reference between the client service or complaint management formal protocols. So far, in organizations, reflexivity would go even further than reflectivity by redefining the formal protocols to adjust them to emerging new client behaviours.

Mindfulness means that the person is present to the current moment, both in terms of body, respiration, feelings, thoughts and general state of mind (Hines 2018, DiSalvo 2013). This

mindfulness focusses on the present moment of existence, independently of the past events and future expectations. It marks a stand still focus of the mind to the present state of existence. It allows to appreciate the stillness of that moment and its experience of living the moment (Ditrich 2017). There is no intent to improve past events, or perform in the future experience. Mindfulness is an extension of meditating state of mind while being in the contingent situation. As a generic example, a mindfulness practice in a traffic jam would mean to let go on the unexpected traffic jam, the tension in being constantly concentrated in reacting effectively to avoid probable accident between close cars and trucks and most of all letting go on the expectation of getting out of the current situation. Mindfulness would embrace the moment as a time to let go of the situation, focus on the breathing, the sitting-still position and choosing a minimized concentrating effort to adopt a driving courtesy approach to other drivers while embracing the situation as it is and not as it should or could be. Mindfulness becomes a form of “letting go” expectations and performance pressure.

Consciousness and meta-consciousness refer to the level of awareness. Consciousness is to be fully present and concentrated as a form of awareness of the situation at hand (Jonkus 2015). Self-consciousness would therefore be a level of self-awareness of who we are in terms of role and function we ought to play in the situation, to respond adequately to expected self-conduct in that particular situation (de Verlaine 2022, De Waele 2001). It also implies that consciousness over the situation means we are aware of the rules, regulations and procedures that are framing the socially constructed situation.

The meta-consciousness would therefore be a higher level of awareness of what is being socially expected of own's self-conduct, as well as being aware of the overall intent a person has by putting oneself in that situation (Jonkus 2015, Kriegel 2006, Gennaro 2004). A little further, the meta-self-consciousness would refer to a more general set of planned tactics within a global life strategy to plan and implement that life strategy. This meta-consciousness is the level of awareness to become actor of own' life project.

In a generic example, consciousness would mean to be aware of what it takes to practice medicine. A meta-consciousness is the awareness over the tactics to implement in order to earn the legitimacy and the right to practice medicine. Self-consciousness would mean to be able to assess the interest, the ability and the factual capability to accomplish the tactical steps to become a medical practitioner. A meta-self-consciousness would allow to wonder the hidden inner reasons to have this life project, whether it is to take care of people, to please a parent, or to earn a social status.

Compared with the previous cognitive activities, reflexive practice aims at a transformational process over oneself and creates knowledge transcending situations (Popoveniuc 2013, De Waele et al. 2001). Reflexivity practice takes a metacognitive distance to be both aware and critical about the reflective ongoing improvement and adjustment practice. It would adopt a critical perspective on the practice frame of reference to question its foundations.

Reflexivity questions the cultural, historical, epistemological, doxological and even political and technical frame of reference framing a practice to reframe it within its socially constructed context, create or find alternative socially constructed approaches to deal with the present situation (Fronty 2017, St-Arnaud 2009, 1996, De Waele et al. 2001, Estrela 2001,). For

instance, reflexivity practice will critically question the industrial mass production and mass consumption. Reflexivity would find alternative way to sustain human living condition to deviate from the modern mass economic operation. Reflexivity practice is a meta-consciousness turned toward improving innovation and transformation of human life and condition (de Verlaine 2022, Stanford 2019).

Reflexivity is a mean by which society can question human relation to the planet, relation to animals, relation to humanity to revisit its current practice and innovate in creating new alternative ones (de Verlaine 2022). By contract, reflectivity alone implies that a person only adjusts own self-conduct to conform to socially constructed norms of conduct and therefore treating oneself as object to replicate social structures. Rather, reflexivity leads a person to treat oneself as subject, acting, creating and innovating own's life and becoming a transformative member of the collective. It leads to take on responsibility as social actor, creator and innovator of human's role in this world. Reflexivity therefore refers to a critical perspective, to take full responsibility and adopt a proactive role to create and innovate alternative actions to improve human impact and human condition. Ultimately, activists have to practice reflexivity to propose innovative social practices, while a non-activist will aim at implementing public policies and best expected self-conduct.

By analogy, self-reflexivity takes distance from life contingencies, daily routines and life projects to adopt a critical perspective on the culturally, social, political and technical heritage and legacy, available knowledge, assimilated beliefs about oneself. Reflexivity leads to dig up fundamental uniqueness and inherent calling as a person and as human being to find and create a new existential path. Reflexivity practice will not only bring this level of self-awareness as a unique person and universal human being, but it becomes the ability to implement this new existential path through existing socially constructed society including findings means to innovate new technologies, new practices, new rules and regulations, and even new vision for society.

Reflexivity is therefore a moving consciousness between individual and collective process of becoming. Reflexivity may start at the self-level, it will eventually set the self into the collectivity, and vice versa, a collective reflexivity will in turn lead back to the individual responsibility to contribute to this new collective vision and future. Individual accomplishment has to find meaning and contribution to the collective, and reversely, a collective new practice has to have a positive and contributive impact at the individual level. The current research aimed to go furthermore than a reflective practice which is currently well practiced in professional domains.

Discovering how to effectively and concretely practice reflexivity, it will be democratizing the practice to make this level of transformational capability available to anyone looking to improve full awareness of social movements, social innovations and social changes. In other words, with reflexive practice social movements, Nation-States, Institutions activists and elites initiating changes would become fully aware of its impact as well as positive and negative consequences and externalities over its demands. At an individual level, reflexivity would become a fundamental human competency to self-liberation from the process of assimilating social conformity to free oneself from blind obedience to socially constructed expectations over human life-project.

Epistemologically, this research is part of the phenomenological and pragmatic approach within the radical humanism (Burrell and Morgan 1979). As part of the existentialism theoretical tradition, this radical humanist paradigm frames knowledge aiming at human liberation through actualization and individuation as part of the greater scope of human development. While existential phenomenology would look at the experience of existence and representation of that existence in the interpretivist paradigm, radical humanism looks at the proactive transformational process of the human existence, independently of socially constructed representations and human living conditions.

The empirical experimental research aims at finding how to learn and practice reflexivity at the individual level. A longitudinal experimentative research seeks to figure out how, concretely, an person practicing reflexiveness leads to a collective level of reflexivity.

Reflexive practice experimentation aim at being self-aware revisiting self-conduct in professional and general social interactions as a form of insights beyond the reflective process (Vinatier 2012, Lafortune 2009, St-Arnaud 2009). It should also lead to be aware of the manner by which oneself is aware of own-self in a reflexive process. In other words, not only a person can be mindful, self-conscious, and fully aware of one's thoughts, emotions and actions/reactions, but the person should be aware of that very awareness to adopt a critical perspective of own's existence (St-Arneaud 2003, 1988, Verreault and Gendron 1992).

This reflexive process reveals how it creates openness to discover alternative experience to create new choices. It also implies discovering and even creating alternative meanings over existential experiences, life accomplishments, failures and difficult challenges. It is believed that this level of meta-consciousness within a reflexive perspective would lead the path to make alternate fundamental choices over one's life and be critically aware of the structural constraints limiting one's own choices and actions in self-actualization. It is not only the path to find new forms of high level of freedom, but to better understand how this freedom is limited within the social structures which contains individual freedom.

This empirical research has the ambition to self-liberate from social predetermining structural and cultural forces on individual's obligation to social conformity and obedience. It doesn't mean that the individual can change these social norms. Rather, the individual would become acutely aware of them and be able to find real paths to self-liberate within those constraints.

METHODOLOGY

This empirical exploratory experimentation occurred in a 17 years longitudinal action-research using phenomenological data collection and analysis from 2005 to 2022 including 1200 participants for external validation. This section will explicit the action-research multilayered process and phenomenology.

Action-Research Methodology

Because it is profoundly imbedded into practice, the best experimental longitudinal pragmatic methodology is Action-Research. It took 17 years (2005-2022) of longitudinal empirical research to discover a validated and falsifiable practice of effective reflexivity. In other words, not only this research is able to explicitly state what reflexivity is through systematic validation, but it can also explicitly say what it is not through falsification.

Action-Research's whole value is to experiment through real actions in real life. Based on Dewey, Kolb and Lewin conception of experience, discovering and learning is a pragmatic action in the real world rather than being tested in a lab or experienced in a form of preconceived context (Reason and Bradbury 2008, Goyette and Lessard-Hébert 1987). The Action-Research methodology was structured in multilayered spiral format (Goyette and Lessard-Hébert 1987) (figure 1).

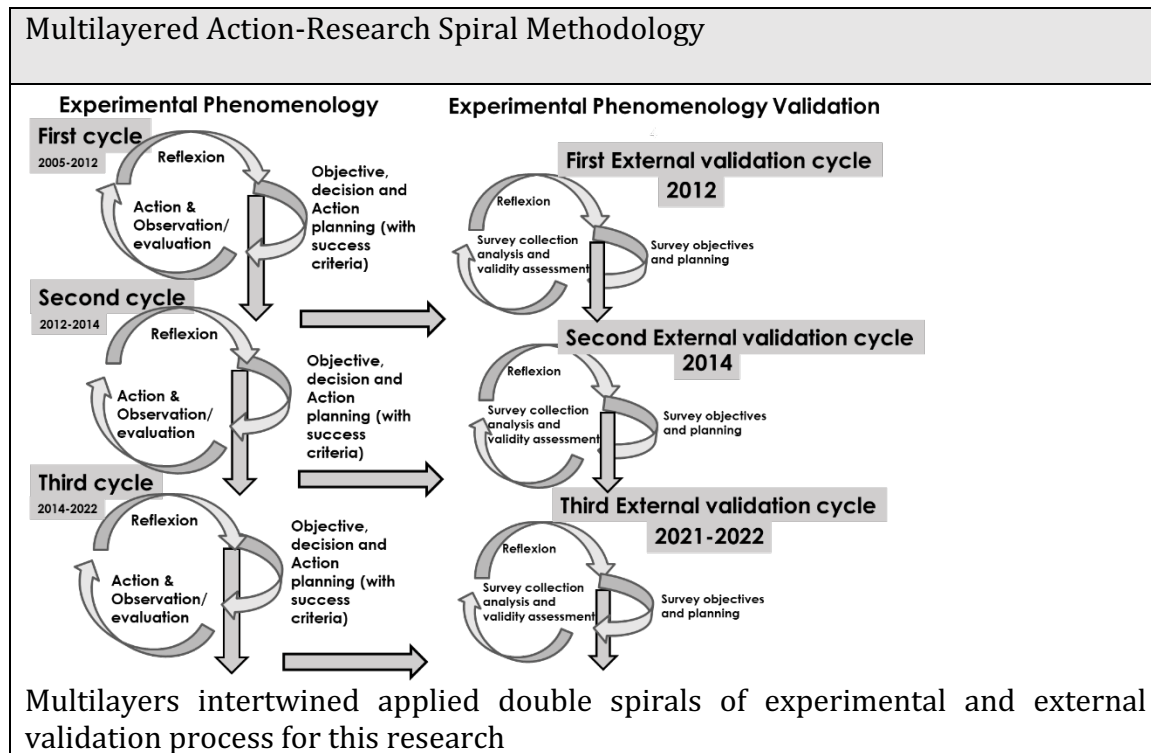


Figure 1: Multilayered Action-Research Spiral Methodology

The first spiral is a phenomenological experimental spiral from 2005 to 2012 to experiment how to reach a reflexive practice. Using the journaling technique to collect phenomenological raw data was needed to collect and differentiate reflective, cognitive, metacognitive, self-conscious and meta-self-conscious data to be able to reach the reflexive capability. This data collection required not only self-experience data collection, but also knowledge research in different literature to classify these different practices. This literature research leads to existential philosophy literature at first, but also to philosophy of language, positive philosophy and even fundamental physics theory questioning reality, its experience and even the origin of the universe. In other words, the Husserl's (1900-1902, 1905-1910) phenomenological epoché process to analyze the sensory experience of living independently of culture, historical contingencies, or any socially constructed human condition, it became obvious that it required knowledge about the universe and reality as an objective fact as science offers it. This new objective perspective on reality and human experience of existence was essential to develop a critical perspective on socially constructed human life experience. That action-research first cycle process did set the base for the next level of reflexive practice findings.

From 2005 to 2012, the reflexive practice had also been thought to university graduate and undergraduate students in different management courses as part of the reflexive practice development. By teaching the reflective and reflexive practices within a professional competency development program with its theoretical frame of reference of best practices, it was possible to insure an objective reflexive practice that could be learned and reproduced in different context (de Verlaine 2022). In 2012, all the courses evaluations done by students revealed a systematic feedback from the students about this deep sustainable learning (de Verlaine 2022). More so, these feedbacks became even more interesting when some students took several different courses where they learned to compound the learnings from one course to the next, developing, by doing so, an integrated level of professional competency and self-awareness. Once this survey collection of data was conducted in a first external validation action-research cycle was done, a new consolidated understanding of reflexive practice capability was established. As the spiral approach enables, this knowledge became the basis for the second phenomenological action-research cycle.

The second phenomenological action-research cycle occurred from 2012 to 2014. This cycle, the reflexive practice experiment focused on developing a reflexive praxeology. It means that the intent was to formalize reflexive practice in a formal conceptual framework. This is when not only journaling and memoing was maintained, but the experiment aimed at developing a teachable conceptual framework to formalize what reflexivity is and how to do it effectively. In 2014, a formal survey was done as a second external validation action-research cycle. A questionnaire was sent to a sample of 100 student among the 700 students who took those courses from 2008 to 2014 where reflexivity was practiced and learned. A group of 13 students answered the survey confirmed the formalized conceptual framework to practice reflexivity, but also revealed that this particular learning was the sustainable deep competency learning students had made.

The third and last phenomenological action-research cycle lasted from 2014 to 2022 where a formal knowledge of how to practice reflexivity was applied to professional, but also to all aspect of human life, including personal, cultural, political, ecological and spiritual life. Not only this reflexive practice was expended on a wider range of human life experience, but it was done with the support of a formal reflexive praxeology body of knowledge. This frame of conceptual knowledge became a leverage a structured creative, innovative and self-liberating aspect of reflexive practice to better enhance human freedom and contribution both at the individual level and the social contribution level.

The third external validation action-research cycle occurred in 2021-2022 open survey inviting 15 different students who have learned the reflexive praxeology framework and maintained its practice over several years (from 2009 to 2021). The survey was an open question as to what had they learned and continuously practice and how it impacted their lives. Ten of the fifteen students answered that survey through a testimony of their life transformation and its impact in their community.

This last cycle of external validation over the phenomenological findings revealed not only the value of the reflexive praxeological conceptual framework as a reference to structure reflexivity practices, but how long-term reflexive practice gave rise to a praxeological reflexivity (de Verlaine 2022). The survey revealed that formalizing reflexivity practice in terms of a

praxeology-a body of knowledge to practice reflexivity- became a praxeology of ongoing, continuous, imbedded reflexivity in daily lives. For these research participants, reflexivity was not only done once in a while, but on a daily basis, and by doing so, changed the very nature of the objects of reflexivity. Instead of initially focusing on the individual aspects of human life, became the means to answer an existential question on how oneself can best contribute to the collective well-being. To do so, the individuals became leaders in their respective community to support the collectivities to approach their community project from a transformational perspective to improve well-being including self-affirmation of their existence (de Verlaine 2022). The reflexive practice became a practice of being reflexive in terms of continuously critically assess human condition creating new means to reach well-being as the dominant way of experiencing their own existence.

In conclusion, this phenomenological experimentative action-research done from 2005 to 2022 was externally validated by a little more than 1200 university research participant students through 115 courses of 60 different subject of management studies, surveyed in three action-research surveys (in 2012, 2014 and 2021-2022). This level of rigorous internal and external validation made key milestone findings possible discovering how to do reflexivity and self-reflexivity to better understand its long-term impact on human existence.

Phenomenology Method

The phenomenological method defined data collection and analysis. Auto-phenomenological data collection occurred through journaling and memoing. Phenomenological method aims at finding universal knowledge (Husserl 1900, 1905a). To better understand the phenomenology specificity, it is relevant to distinguish it from ethnomethodology and auto-ethnomethodology's reflectivity. Ethnomethodology's reflectivity focusses at the description and analysis the cultural references over the individual's subjectivity within its cultural specificity to understand actions/reactions, emotions and intentions (Chang 2008). The auto-ethnomethodology offers a deep access into the individual's subjectivity through the researcher's own deep subjective experience. The two forms of data collection and analysis offer access to understand culturally driven individual conduct, while the focus on the reflective process of the individual aims at the ability to adjust self-conduct to contingencies from past experiences insights and introspection. Ethnomethodology can be done through observation, even participative observation gathered in fieldnotes, while auto-ethnomethodology best be done through journaling, both of which are supported by memoing which incapsulate key significant moments and primary analysis over the meaning underlying human experience to articulate emerging conceptualization (Adams et al. 2022, Birks et al. 2008, Chang 2008).

Phenomenology also uses fieldnotes, journaling and memoing. It can focus on reflective or reflexive forms of data. The collecting and analysing techniques may be the same, but phenomenology will extract cultural frames of reference over human experience in terms of meaning to reach the objective foundation of human experience. This ability to reach the objective and therefore universal meaning of human experience is done through epoché analytical technique (Husserl 1900-1901, 1905-1910). Epoché is the technique where the researcher intellectually abstracts the cultural, social and subjective context of the human experience to focus on the transcendental hermeneutic meaning of the experience (Husserl 1905-1910). For instance, a transcendental hermeneutic meaning of an experience will distinguish if in a specific moment the individual is reflective or reflexive over the experienced

situation. When the analytical memoing reveals a the individual does an insightful reflective experience, the phenomenological method reframes this reflective process within a larger reflexive process. As an example, an individual would be focusing on the reflective process to accomplish a specific objective, such as self-regulating emerging anxiety while performing in a specific situation. This becomes a first level of primary data collection to be collected. Over several moments of this type of reflective self-regulating conduct, the phenomenological method will focus on the communalities between these reflective self-monitoring practices to access to the hidden intents and socially structured human experience. The phenomenological analysis leads to reveal in a reflexive practice, any alternative human experience in the same situations to make different actions, and ultimately innovate new self-conduct and self-consciousness over the hidden self-programmed actions and reactions.

Phenomenological research allows to define how to achieve reflexivity and better understand its impact on human existential experience. Consequently, this phenomenological approach creates basic new objective knowledge of reflexive practice and long-term impact on human existence independently of cultural, societal, situational and individual singularities. To insure this objective new knowledge's universality, not only systematic data collection and analysis practice has to be reliable, but it also has to be regularly validated through both internal and external validation to confirm new meaningful discoveries. This is how action-research process comes into play to structure data collection, analyses, continuous internal validation and punctuated external validation.

CONCEPTUAL FRAMEWORKS

The conceptual frameworks underlying this empirical research is based on three objects: consciousness, reflexivity and brain functionality. Defining a reflexive practice required to differentiate the consciousness from reflexivity and find ways to reach reflexivity through brain functionality. Note that the literature of the phenomenological experience of self-consciousness and reflexivity was in its infancy in 2005, when this empirical research was undertaken. Over time, the conceptual framework was reinforced with the emerging literature in accordance with the original conceptual framework, especially with neuroscientific and reflexive researches.

Evidently these three objects have very vast literature and theoretical references to build from. The main contribution of this research is to focus on the empirical experience of reflexivity and discover how to do it and how to learn to do it.

The first conceptual framework is on consciousness, based on Sartre (1943) and Bergson (1888). For Sartre (1943), there are three levels of consciousness: Involuntary consciousness, voluntary consciousness and meta-consciousness (Table 1). Involuntary consciousness is a form of continuous internal monologue impossible to stop at any awaken state of mind.

Voluntary consciousness is the most commonly known as thinking action also known as cognition. This voluntary consciousness is intentional, done at will and directed to a specific task or object of thoughts. For instance, voluntary consciousness will be used to accomplish a challenging task, such as concrete problem solving or a thought like focusing on understanding a difficult reading.

The meta-consciousness is the equivalent of the meta-cognition where consciousness is aiming at consciousness in itself, which is above consciousness and therefore is a “meta” as a prefix defined as above, as an overview, taking distance from first level of consciousness. This meta-consciousness can aim at involuntary consciousness or the voluntary consciousness. Meta-consciousness is therefore a higher level of thinking able to create knowledge on consciousness and the thinking in itself. Meta-consciousness is the individual’s ability to reach a level of objective knowledge as a conscious being on its very existence as a Being.

Table 1: Three levels of consciousness (de Verlainne 2022, Sartre 1943)

Three levels of consciousness	
Involuntary consciousness	Continuous, spontaneous involuntary thinking experienced as internal monologue.
Voluntary consciousness	Thinking in action at will. It is a directed thinking intention.
Meta-consciousness	Voluntary thinking on thinking itself whether it is on the internal involuntary monologue or the voluntary thinking itself.

Bergson (1888) questioned the mechanical conscious brain activity arguing that there is something else than a biological activation to explain this consciousness (Bergson 1888, Persiaux 2010). This consciousness is based on the capability of memory and goes beyond existential mode of experience reaching an objective and universal mode of conscious experience. In other words, Bergeson argued that memory is not just a physiological capability from the brain’s biological constitution. He distinguishes the habit memory recalling passed experience, and the pure memory imaging the context in which a new learning occurred at a higher level of universally accessible consciousness. This is where, we argue, that reflexivity can be done and its accessibility through Husserl’s universal phenomenological investigation method.

This pure memory echoes this ability to create knowledge of the cognitive capacity, its nature and process while taking a critical perspective over it to realign it with a lucid knowledge of the initial thinking action and reaction (Persiaux 2010). The value of Bergson’s interpretation of consciousness allows to distinguish it from the cognitive physiological capability. Meta-consciousness accesses the ability to doubt. Meta-consciousness can therefore doubt that a meta-cognitive action may not necessarily be a meta-conscious action as such, but rather question the fact that the thinker may believe that he’s doing reflexivity, while he is doing reflectivity. Bergson (1888) allows to differentiate the subjective consciousness from the objective-universal consciousness, both of which are accessible by the thinker, but encounters differentiate value for building objective knowledge. If this type of differentiation is not made, who’s to say that any formal objective knowledge is not merely a subjective individual representation of one’s own subjective individual experience of living. This is the key factor for insuring external validity throughout the whole research investigation. The process allowed to seek the specificity of reflexivity.

The phenomenological foundation of the mind’s consciousness follows what became the “representational Theory of consciousness” (Jonkus 2015, Kriegel and Williford 2006). This

literature has some flaws for its lack of articulating the relation between this representational consciousness and self-representational self-consciousness in respect to the brain's function.

The second conceptual framework is about brain activity and functionality. Brain functionality is essential to differentiate what is being thought over. Anatomically, the frontal lobe of the brain is where the reasoning, consciousness and self-awareness is happening (Hoza 2016, Hines 2018, Miyamoto 2018, Chayer 2001). Kahneman (a Nobel Prize-winner for his research) distinguished the unconsciousness as an intuitive and automatic system proposing ideas, thoughts and actions to the consciousness (Hoza 2016). It refers to the involuntary consciousness conceptualized with Sartre's study we refer to. The consciousness, as Kahneman's research present, is an explicit, voluntary thinking action framed by beliefs and occurs through reasoning and decision making over the unconscious propositions (Hoza 2016). Kahneman explains how the two processes relate to one another leaving most important and unexpected situations to be thought through to the conscious function of the brain. Most of daily activities are therefore managed by this unconscious brain activity. Articulated in Sartre's typology, the unconscious anatomical brain refers to the involuntary consciousness and voluntary consciousness experience of the cognitive activities. Sartre's and Bergson's meta-consciousness would therefore be done by the conscious brain. The conscious brain is the interpreter (Hoza 2016). This interpretation process is a multidimensional complex process including constructing meaning, choosing its interpreting approaches, cultural references, ethics, affect, goal setting, discourse, social interactions, and so on (Hoza 2016). Because it is a complex process, interpreting implies the conscious and unconscious brain functions to work together. But, this collaboration reduces the conscious part of the brain's contribution to the interpreting process (Hoza 2016, McEwen 2000). The reflexivity therefore requires to be conscious and aware of the conscious process including being conscious of the self-consciousness as an interpreting force at play. It therefore requires a higher order of consciousness beyond reflective thinking.

Ultimately, the frontal lobe is the brain anatomy where cognitive functions occur, including reflexivity. It is the slowest part of the brain activity and its conscious process is the one requiring the most concentration of the mind. This physiological aspect of the conceptual framework became one of the most determinate factors to select an empirical technique to reach reflexivity practices, one of the highest orders of reasoning. This literature falls into the Higher Order Monitoring Theory (Kriegel and Williford 2006, Jonkus 2015). It also lacks in explanations to understand how the brain can rightfully represent itself as consciousness since it is imprisoned in its own physicality, not knowing if it is in fact conscious about it or unconscious. Meanwhile, the self-representational theory is a phenomenological experience of being aware of being conscious (Kriegel and Williford 2006). According to Bergson (1888), this type of awareness is universal to human kind. Furthermore, this self-representation of the mind being self-conscious of its consciousness is the very essence of reflexivity.

The third and last conceptual framework is about reflexivity. Reflexivity is the ability to create objective and universal knowledge over the object of thoughts. Doing reflexive practice requires to go beyond reflectivity to be able to take a critical stance on this reflectivity. Reflexivity is therefore required to build on scientific knowledge since it implies doing double-loops on the methodological practice of discovering the very nature of reality as an objective existence of something outside one's mind and thoughts (Popoveniuc 2014).

Self-reflexivity involves applying reflexivity to self-conduct, including self-consciousness and meta-cognitive thinking. Self-reflexivity requires insights, introspection, reflectivity and self-reflectivity, reasoning, self-appraisal and critical thinking to occur (Popoveniuc 2014, Stanford Encyclopedia 2019).

This research experiments to discover how to do reflexivity and self-reflexivity aware of the thoughts, consciousness while being aware of being self-conscious to take a critical perspective at this knowledge about the self and its predisposition in feeling, thinking and acting or reacting. This critical perspective will therefore allow to create alternative predispositions and therefore make innovating choices in feeling, thinking and acting/reacting to contingencies. Overtime, this reflexive competency practice on a regular basis is observed to see how it transforms consciousness and self-consciousness itself⁸⁸⁷⁹.

HOW TO DO REFLEXIVITY AND SELF-REFLEXIVITY: KEY EMPIRICAL FINDINGS

The empirical findings are presented in two folds: 1) at the end of each cycle of the phenomenological spiral and its external validation spiral, and 2) a look at the transcendental findings across the whole experimental research process.

First Phenomenological Cycle (2005-2012)

This first cycle of phenomenological experimentation of reflexivity was to find-out how to technically achieve this type of thinking. The first observation was the coexistence between what Sartre referred to the involuntary consciousness, voluntary consciousness and meta-consciousness in daily functions.

The chosen technique to access to reflexivity was to write. The question is how to write and what to write. It appeared that the best access was to write the first lines, sometimes a whole page on involuntary conscious internal monologue. This way, it appeases this internal invading involuntary thoughts.

Once this aspect of the mind is calmed down, it is possible to address the voluntary conscious thinking. This thinking focusses on describing the most significant emerging concerns over the past days. It can go from impressions, emotional state of mind, challenges, issues, objectives at hand, even action and activity planning. This particular experience of this writing is motivating because it sets structural factors of one's daily life. Once, this description is done, comes into the process a reflective analysis of these concerns. This part of the analysis is to find relations between emotional state, issues, events, thoughts including intentions (both explicite and implicate), actions and reactions over these concerns.

This reflective process reveals how feelings, thoughts and actions are interrelated within the specific events and contingencies. An introspection is therefore possible to assess how this overall experience is satisfactory or not. Once it is measured in terms of life satisfaction, there is a need to find which element affected the most this satisfaction and dissatisfaction. These elements become the fundamental data for reflexivity.

Reflexivity aims at creating knowledge, take a critical perspective on the situation, creating alternative approach to experience the situation at hand, and build a plan to transform the situation based on knowledge and alternative approaches including measurable success

criteria to monitor the transformation implementation. To do this reflexivity, it means systematically get into the process:

- 1) Find objective knowledge about the issue of concern revealed in the reflective and introspective analysis. This means doing research in the literature, sometimes it even means taking new courses to learn new knowledge to be able to address the concern. This knowledge building may mean to do it in short, medium and long-term action plan. Preliminary knowledge finding is necessary, beginning with the knowledge we already have, the one easily accessible, while the writing session occurs.
- 2) Once this knowledge is written, an analytical process tries to find both explicit and hidden perceptions (including biases), interpretations and explanation of the experienced concern in terms of feelings, thinking, actions and reactions. A critical process occurs by assessing the positive and negative impact of these feelings in relations with the perceptions, the thoughts, the thinking logic, actions and reactions in relation to the fundamental intentions behind those actions and reactions in accordance to the thoughts and feelings. This critical analysis helps find if the original intentions appeared to be objectively met and the subjective impact on oneself. Depending on the answer to that question, if something did go wrong, a critical reflexivity engages to figure out if the negative subjective impact is because the actions and reactions did not meet the intention (hidden or explicit), or if the intention in itself was proper or not. There goes a process of assessing the intentions both explicit and implicit to reveal the fundamental self's awareness.
- 3) Once the fundamental explicit and implicit intentions are found, there is a meta-analysis back on the relations between the situation, the actions and reactions in respect to the thoughts and feelings one had during the situation. This process brings fundamental meaning to one's own perception, even perception biases during the situation, its influence on thoughts and feelings and figuring out how it impacted actions and reactions.
- 4) Once the perception is identified, it is reframed into objective knowledge previously collected, but also alternative perceptions gathered from other people in that situation. This reflexive process allows to find alternative perceptions of the issue. A thought simulation occurs through the writing session to test how these alternative perceptions change the feelings, thoughts and chain of actions-reactions one would have had. This allows to find new creative alternative ways of experiencing the situation and the concerns. It even contributes to better understand the initial reactions, feelings, intentions and thought process experienced. This level of understanding brings a level of self-consciousness of how one is made as a person with one's own history, personality, personal experience as well as cultural, social and political background. It reveals beliefs and values that guided these concerns and the reaction to the situation. It allows to create meaning while taking an objectified distance based on knowledge, analysis and critical perspective from this subjective experience.
- 5) It is possible to create and choose new perceptions that could best serve personal value and experience satisfaction. From that new perception of the situation, it is possible to create a new set of thoughts, actions and reaction to experience the situation. It also allows to find new knowledge and new competencies to enable the transformation of spontaneous feelings, perceptions, actions and reactions one can have about the past, present and future experiences.

This writing reflexive technique is firstly practice on past experience to develop the writing reflexive practice. But rapidly, it has to be done on current experience as it happens to be able to experience the transformation one wants to experiment. The faster new experimentation of new self-conduct occurs, the faster the reflexive practice can have a positive transformation impact on one's experience on significant occurring situations.

Once this reflexivity practice is better integrated into daily life, it is turned to address not only past and current situation, but also plan new self-conduct on future situations, and even creating those future situations best on better self-knowing, self-awareness and self-consciousness. This way, this reflexivity practice becomes a powerful self-transformation based on internal life satisfaction instead of adopting what social and cultural frame of reference and norms offer in terms of life planning. It becomes a self-liberating and proactive experience over any emerging situation and contingencies. It doesn't mean a person will avoid difficulties and even failures or hardships, but it will learn from them and turn it around to build on efficient resilience capability to be able to get back to personal and motivating life goals and satisfaction. Over time, this knowledge of how to do reflexivity and self-reflexivity becomes a praxeology in itself, a form of knowledge and competency bringing autonomy and self-assurance.

First External Validation Cycle (2012)

This fundamental reflexive practice technique through writing session following the described steps in building knowledge and transformational action plan was applied on several objects of concerns both for the researcher and research participants (1200 students). The first external validation cycle done in 2012 revealed common experience over this reflexivity transformative capability.

In terms of action-research implementation, the knowledge framework used were self-actualization and professional maturity competency development conceptual framework from St-Arnaud (2009, 2003, 1996, 1988) and Lafortune (2004). To address feelings, the conceptual framework used as reference was De Waeles et al.'s (2001) self-management but also Buckingham's (2001, 2022) conceptual framework about deep motivations imbedded in personal talent and hard work to get in the flow to experience self-accomplishment and life deep-satisfaction. These objective knowledges led the research participant and myself to make four common transformative impact through reflexive praxeology:

- 1) The writing technique is the only one allowing to access reflexive practice, and the best is to practice it on a daily basis;
- 2) Reflexive process allowed to transform the involuntary consciousness from a negative internal monologue to a positive, cheerful internal monologue. This transformation becomes the first and foremost baseline to trust one's own judgement to take better actions, and being able to overcome deceptions, hardships while building self-confidence and a sense of self-construct confidence;
- 3) Reflexivity best contribute to be aware of oneself, learn self-identity, individual talents and internal deep motivations;
- 4) Reflexivity contribute to be aware of self-improvement opportunity, build a self-development plan and monitor its implementation and its success for professional and overall life's satisfaction.

Second Phenomenological Cycle (2012-2014)

The main learning from this action-research phenomenological experimentation was to differentiate between self-reflexivity and reflexivity. It was important to continue to be able to act on oneself, but also improve the knowledge utilized to support self-transformation. A reflexive practice had to be done on the preferred chosen knowledge to understand the motivations in choosing a certain type of knowledge. Doing reflexivity on the knowledge opened the path to do reflexivity over one's beliefs and values that are framing feelings, thoughts, and the chosen knowledge and action-reactions. This would allow another level of critical perspective to reframe these frames of reference to self-conduct and bring another level of self-accomplishment. This second cycle of phenomenological experimentation was done in conjunction from an individual and collective action-research process.

Through this action-research process, mindfulness was introduced in the research experiment. Because of its positive impact on human well-being, mindfulness was integrated into daily practices and in accordance with reflexive practices.

There are three major findings in the second phenomenological action-research cycle:

- Self-reflexivity meant learning the different contributions between introspection, reflective practices and mindfulness and how these three practices are needed to reach well-being as well as supporting reflexive praxeology;
- Epistemological reflexivity: becoming aware of the unconscious beliefs and values underlying the preferences of certain knowledge. This new awareness opened the mind to reach alternative new forms of knowledge that wouldn't be explored without reflexive practice on the preferred knowledge;
- Integrating mindfulness allows to calm inner performance anxiety and relativize social and organizational expectancies in resource allocation, managerial or institutional support and the required competencies to accomplish the goals.

Reflexive praxeology became a very interiorized daily practice for more than seven years as a researcher, but also several research participants who took as many courses possible to integrate new knowledge, professional competencies to a reflexive praxeology. As both individual and collective participation, a new level of reflexivity began to address reflexivity not only on oneself, but also on the knowledge used to leverage critical and creative reflexive deep humanist transformation. This is when reflexivity as a practice was applied to both the self, and scientific knowledge. Self-reflexivity continued with the step by step technique and analytical process discovered in the first cycle, but it was also developed to address reflexive practice to the scientific knowledge as well for a deeper epistemological understanding of ones' own preferences.

In order to do reflexivity on knowledge, a step by step process was also discovered. Inspired from the self-reflexivity practice, it starts by describing the acquired new knowledge. It is done in comparison to the previously acquired objective scientifically based knowledge. An analysis occurs to compare the epistemic foundations of these body of knowledge to validate its convergence and divergence. It also looks at the methodology used to develop these knowledges to find its reliability and validity. Ultimately, once this knowledge is epistemologically positioned, it is tested in the self-reflexivity practice but also in empirical

experimental research. In other words, the research participants undertook several scientific knowledge testings to better comprehend empirical contextualized situations with real organizations and real people. This knowledge testing allows to build a critical perspective on it and find new meaning for this knowledge applicability in the real world. This theory, epistemic and methodological reflexivity created a better deep understanding on how to learn not only from formal theoretical knowledge, but also in context of applied knowledge. It led the way for research participants to learn how to build from applied knowledge and learn to use fundamental knowledge to reframe applied knowledge. This allowed them to become critical and therefore explore new ways of creating knowledge in unexplored situations and perspectives. Because this is done in a reflexive mode, it implied that each participant would question oneself as to the intentions behind the interest for a certain type of knowledge, epistemic perspective and methodological approach. These research participants learnings occurred with group discussions, debates and investigations, as well as back at the individual investigating process. Through this double loop reflexivity, the research participants were able to find personal meaning to one's interest to a specific type of knowledge and how it affects self-reflexivity.

Mindfulness was introduced in self-reflexivity. In the beginning it was added write after the involuntary conscious writing of the internal monologue to get back into the now moment and stay in the present state both in the mind and the body. Including a mindfulness writing in the daily process allowed to reduce involuntary conscious step of writing to rapidly get into a concentration state of voluntary consciousness and meta-consciousness. Over time, mindfulness was integrated within the involuntary description flow of thoughts throughout the daily flow. By analyzing this transformation, it became observable to see that mindfulness practice is assimilated in the general state of involuntary consciousness. This is one of the most valuable transformation of the involuntary consciousness. Mindfulness writing meant to right about the present mood, acknowledging the different intertwined emotions and feelings, acknowledging the body and breathing sensations, appreciating the stillness of the present state and moment including the appreciation for having this private session for oneself.

Since the introduction in 2012-2013 of daily mindfulness writing brought two major transformations. The first noticeable impact was the ability to calm down this internal agitated internal monologue nervousness and performance anxiety at all time. It allowed to reach calmness and concentration capability at a more effective manner to be able to do effective reflexivity. Whenever an involuntary self-agitation, nervousness occurs, it brings this sudden state of mind to a self-awareness consciousness. It then activates an almost involuntary conscious mindfulness practice, whether it is done through writing or through breathing and mindful thinking over the present moment. According to the brain functionality, it means that daily mindful practice becomes an unconscious brain function like any other familiar routines and activities. It becomes an almost automatic response to inner agitation, nervousness or anxiety to the point of becoming a proactive reaction before the triggers have an impact on the internal feelings.

The second noticeable benefit was to be able to practice mindfulness outside the writing daily sessions and be able to regulate anxiety, nervousness, mind agitation in difficult situations, and be able to step back and doing reflective analysis of the situation while it is happening. This ability to do reflectivity within the moment, allows to facilitate reflexive feedback on the

situation and to monitor the transformative action plan previously established. Integrating mindfulness not only improved reflexive practice capability, but it improved its transformative strategic objectives implementation. In a collaborative practice with others, it elevates the ability to analyze the group and individual effectiveness, intentions and ability to learn while transforming from the situation both for the group and for the members of the group.

This mindfulness contributing effect to reflexivity practices for the participative individuals reinforced the ability to step back from the situation to assess the social, institutional and organizational engagement to support individual and collective objectives, visions and mission. It allows an individual and collective ability to become critical of the success factors and if the structural resources are insufficient, it is more acceptable to redefine success criteria. Reflexive mindful practice allows to become more realistic to what is expected from society, institutions and organizations. It allows to see that the individually interiorized success criteria are higher than collective norms. It opens the door for the individual to establish how to position its own contribution and experience in respect to the collective objectives and means to achieve them. This is the manner by which reflexive praxeology becomes a self-liberating process from social and collective expectancies over self-conduct.

Second External Validation Cycle (2014)

In 2014, a second cycle of external validation revealed how knowledge reflexivity in relation to self-reflexivity transformed the participants and their self-awareness in respect to their fundamental personal motivation in life.

There are three validated findings established through this second external validation cycle:

- 1) Easy to apply reflexivity to any type of object the practitioner wants to improve, radically change and create for themselves, including knowledge;
- 2) The importance of beliefs in the reflexive practice affecting the capability assessment and creating a vision to accomplish;
- 3) Reflexivity became a deep sustainable learning easy to practice once the techniques are learned.

The first finding is that the preferences for a certain type of scientific knowledge was influenced by their values and therefore cultural background. But the objects of knowledge were strongly motivated by their personal life experience.

The second finding is that their transformative actions were guided not only by reflexivity based on critical analysis based on knowledge, but they also have to be profoundly and personally convinced of the value of these new actions and transformations. This led to find that beliefs play a very powerful force on the transformative dynamic implied in the reflexivity practice. Ultimately, when knowledge is incapable at answering fundamental question, beliefs brought a sense of convincing the personal and deep ontological decisions. It became a common understanding that praxeology (both in the professional and personal life) is based on value, knowledge and beliefs. Although, the most fundamental choices and preferences over the values, knowledge and beliefs are determined by the very ontological essence of that person. Over time, praxeological dynamics and accomplishments build on self-identity, self-confidence, self-autonomy.

Finally, this external validation cycle through a survey of 100 students' sample and 700 experiential action-research participants revealed that the most fundamental deep learning they made through their courses experience was how to practice reflexivity, including double loop learning with reflexive analysis support. They had integrated the reflexive writing technique to support analysis, critical thinking, knowledge development and creating transformative and proactive actionable plans easy to implement in respect to their talents and internal motivation. It is even more interesting to point out that among the participant, it was noticeable to find several students becoming so proactive, self-confident and knowledgeable, that they earned promotions within a few months of practicing reflexivity. Others started their enterprises, while others transformed their life choices including the manner in which they experienced the meaning of their lives.

Third Phenomenological Cycle (2014-2022)

The long-term benefits of reflexivity and self-reflexivity practices on the self, knowledge and actions leads to three major discoveries:

- 1) Reframe the role of personality as another form of predispositions (like knowledge, values, beliefs and personal experience and patterns of reactions) to react a certain way in different but yet similar forms of contingencies;
- 2) The resilience capability: long-term daily reflexive praxeology builds a resilience capability by learning how to see positive outcomes through hardship and difficult experiences to get back to the meaningful life and even becoming more creative;
- 3) Life mission design:
 - 3.1 Reframe the importance of chosen beliefs and knowledge in life mission and its meaning to one's accomplishments;
 - 3.2 Reframe socially constructed and organizational expected norms over individual lives to figure out what really makes sense for one's life's actualization and find ways to redefine its path;
 - 3.3 Becoming critical to contingencies, being able to see hidden patterns, social forces, personal motivations to build on creative new visions, new possible actions based on personal talents, motivations, dreams and visions;
 - 3.4 Realizing that one's life can lead into a meaningful mission of collective and creative contribution defined by transcending meaning over accomplishments, failures and learnings. It enables to reframe revised and emerging visions and strategic objectives over time in the context of life contingencies toward defining an emerging life mission.

The personality, resilience capability and the emerging life mission are accessible to the long-term daily reflexive practitioner. Not only the practice has a transformational impact on the self-conduct, but the daily writing becomes a testimonial of self-conduct through life. By revisiting the reflexive writing over years of life experience, a new knowledge emerges from the personality predisposition toward situations. Also, it reveals how resilience becomes as a positive consequence of continuous reflexivity even in adversary situations.

A life mission emerges over time and it comes with the observation that every life transformation action plan made from a reflexive practice is successfully implemented. By contrast, a voluntary conscious action plan alone is more of a response to culturally programmed self-conduct, and even socialized conformity to expected accomplishments. It

may have some value, but it is easily renegotiated according to contingencies and externalities. It generally calls for external motivation for which meaning is external to the person. Reflexive action plans however, come from a deep understanding of one's own capabilities, self-awareness and most of all, inner motivation. The actions plans are profoundly set into life-long meaning imbedded in beliefs, values while being leveraged by knowledge and personal enhanced capability to achieve them, independently of contingencies and unexpected events.

Third External Validation Cycle (2021-2022)

The third and last external validation made by an open question survey to a sample of 15 students, offered a validation to the individual phenomenological findings of long-term reflexive practice. Ten of them answered the survey revealing four major validated findings:

- 1) Resilience becomes more powerful over time and it is done in respect to one's personality, talent and potentiality;
- 2) Going from individual reflexive practice leads to a collective reflexive practice because it is shareable;
- 3) Over time, reflexivity becomes a self-liberating leverage to become who a person really wants to be aligned with individual talent, inner motivations, passion, values and beliefs rather than unconsciously becoming what is socially expected;
- 4) A life mission emerges from personal and professional accomplishments and contributions for the communities. In other words, reflexive praxeology allows to find fundamental meaning to the individual self-actualization in terms of contribution for others;
- 5) Reflexive praxeology became a praxeological reflexivity applied to all aspects of one's life. In other words, what began as a technical practice to improve something, became a deep meta-conscious ongoing praxeological (knowledge of a practice) of being reflexive as a transformational leverage.

Transcendental Overall Findings

Transcendental overall findings are elements that occurred across all cycles of the spiral. There are three major findings. The first one, it is essential that reflexivity be done through the writing technique. It is the only way to concentrate the mind into the voluntary consciousness and meta-consciousness state. It requires such an effort, that the writing process requires to focus on the task in itself. It forces to concentrate and apply the rigorous process of a mindful description, an introspective and reflective analysis in accordance to knowledge to take a critical stand. It brings on a creative and alternative means to experience knowledge, perception, in accordance to own values and beliefs to be able to create a meaningful reframe of the situation into an opportunity to accomplish oneself with own singular talent, vision and inner motivation.

The second transcendental finding is to be able to differentiate reflectivity from reflexivity. While reflectivity aims at tweaking self-conduct adjustments in accordance to a best socially expected practice, reflexivity aims at humanistic transformational self-actualization and collective meaningful contribution through an emerging creative life mission. This finding was made possible through falsification. In other words, when the writing technique was introduced, any insight analysis and introspection on feelings, thoughts and actions had to be measured by reflectivity definition compared to reflexivity. A reflectivity best assess self-analysis in accordance to formal social norms, a sort of idealist performance self-conduct

independently of who the person really is. Continuously doing reflectivity instead of reflexivity leads to life dissatisfaction. This is a fundamental falsification of reflexivity.

Reflexivity is based on inner motivation, self-awareness of personal talent, potential and profound will to accomplish something meaningful to oneself, independently of social formal expectations. There are two types of moments where self-reflexivity is denied and therefore impossible to achieve:

1. It occurs when a difficult social situation arises which imposes to submit to authoritarian formal command. Disobeying to this level of dominating direct order would definitely come with a high cost that could jeopardize long-term meaningful goals. This type of self-denying reflexivity is done when there is a very oppressive authority imposing a violent dominating regime. The only possible exit to that situation is to get out of the situation. To do so, a reflective practice allows to find ways to get out or comply to the authority in place. Other than that, reflexivity is limited or simply impossible to sustain.
2. The second encountered situation where reflexivity is denied is when there is self-doubt over the value of practicing reflexivity. This particular obstacle is often observed when research participants don't see the value of learning this competency, don't want to invest in these writing sessions and don't want to do the effort of building knowledge and voluntary consciousness and meta-consciousness when it appears to be sufficient to simply comply to what the authority is commanding to do. Doing reflexivity obviously requires great effort creating a form of initial discouragement before actually experiencing positive benefits.

The third and last transcendental finding is that reflexive praxeology leads to a deep, sustainable learning and transformation. This particular experimental experiential research was focusing on the phenomenological aspect of discovering how to do reflexive and self-reflexive practice. It did not research on the physiological brain transformation like is done in neuroscientific and medical research. Nevertheless, it would be interesting to find-out if reflexive transformation as experienced phenomenologically reflects physiological brain modification, and if so, how it impacts its neurological function. Despite this research focus to the phenomenological aspect of the reflexive empirical practice, it is obvious that it brings new insight to what a radical humanist transformation means for the individual and the collective. It took a 17 years-long longitudinal and external cyclical validation, reliable systematic data collection and analysis along with falsification practices. All known scientific best practices have been applied to insure quality assurance over these significant findings.

DISCUSSION

This longitudinal phenomenological action-research aimed at answering the question: *How to Do reflexivity and Self-Reflexivity?* The objective was to answer the literature theoretical gap in finding concretely how to do reflexivity and self-reflexivity. Not only the empirical technical practice had to be discovered, but it also had to include the actual thinking process to distinguish reflexivity from other forms of thinking activities. In the process, a strong methodological strategy had to be established to apply all scientific procedure and quality assurances.

Reflexivity practice was discovered, both in technical empirical terms and in cognitive practices. But it also involved incremental transformations as new knowledge emerged from

the practice. It went from distinguishing reflexivity from reflectivity, introspection and insights, including searching inner motivations, talents and the flow as a set of mind. It discovered how mindfulness would play a transformational force toward calmness, self-actualization, self-liberation from the effect of contingencies and internal reactivity. It would bring a positive transformation to the involuntary conscious self-monologue toward a mindful semi-involuntary conscious practice as a response to spontaneous agitation.

Reflexivity was initially applied to the self-reflexivity to develop a better self-knowledge and self-awareness of the cognitive process to discover the role of forces such as values, beliefs and personality. It discovered how knowledge played a leverage force to create a voluntary transformation. It experimented in applying reflexivity to knowledge development itself. This is when reflexivity offered double loop knowledge discoverings, placing the researcher's personal preferences to certain type of knowledge, epistemologies and methodologies to open to unfamiliar fields of knowledge in expanding discoveries and possibilities for transformational aspects of reflexivity into the scientific and professional fields.

Finally, practical, empirical, epistemological and phenomenological findings of this empirical research revealed the intertwined co-transformation of the reflexive practice and its functionality and benefits. It opens to new research perspective to find out how it transforms the brain, but also how it can affect other fields such as psychology and medical treatments, but also how reflexivity can be brought into scientific rigorous methodological practice alongside with falsification, validation and reliability practices to explicit the researchers' subjective preferences, epistemological and methodological strategies and choices.

CONCLUSION

This research answered the question as to *how to do reflexivity and self-reflexivity*. It was a necessary step to meet professional and scientific needs to learn to apply reflexivity practices beyond reflective practices. It reveals the important investment it requires on a daily practice over several years to appreciate its value and transformational impact. A very pragmatic question research participants asked me to know how much time to invest in such a daily task. The answer is any timely session lasts between one to three hours every day. This is obviously a time-consuming effort but also a mind sustained concentration. Over time, it develops the mind flow, but again, it takes practice. Reflexivity requires dedication and rigorous attention to what is being accomplished in the thinking process to reach voluntary and meta-consciousness. This research presents strong validated findings that may convince the importance of this practice. It also brings better understanding to differentiate reflective practice relatively easily done once in a while, from the reflexive practice that involves long-term daily important systematic practice to go from involuntary consciousness to voluntary consciousness and finally get to the meta-consciousness. This level of brain functionality of the frontal lobe is one of the least solicited and therefore the most difficult one to reach. This research offers a step by step procedure to achieve such a high level of meta-cognition on a regular basis including key success factor to monitor its application.

This methodological focus on its phenomenology implies definite limits. It is therefore an invitation to pursue further research in different disciplines to find how reflexive long-term practice can benefit different domains such as psychology, medicine, professional competency development, and in epistemological and methodological scientific practices.

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