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DOI : 10.18196/ijnp.v6i1.13351**Article History**Received : 10 December 2021
Revised : 16 May 2022
Accepted : 10 June 2022**An Axiomatic Approach in the
Development of the Theory of
Creative Aging****Abstract**

Background: *There are several ways in which the term 'creativity' is defined. It may be considered an 'act' or an 'expression'. At an earlier age, people do things in accordance with what is expected of them and moreover, do things from their perspective. In older adults, creativity is an innate characteristic developed to improve oneself, and on the other hand, an 'expression', a way of doing things in everyday life.*

Objective: *This study aimed to develop a substantive theory of creative aging among older adults.*

Methods: *The theory was developed using an axiomatic approach where six axioms were deduced into three emergent propositions. It is theorized that creativity is an innate ability of a person that does not stop upon reaching old age, and is motivated by factors that may limit or enhance creativity.*

Result: *The expression of creativity among older adults in the later years is dynamic and a continuous engagement in activities and life pursuits leads to a healthier and more productive state of aging.*

Conclusion: *Providing opportunities and an avenue where older adults can express their creativity should be considered to better understand the life of older adults and how they continue to flourish in their later years.*

Keywords: *Axioms; Creativity; Creative Aging; Older Adults; Propositions*

INTRODUCTION

There may be several terms in which one interprets the word "creativity. From the words of the renowned author of Creative Aging, Gene Cohen (2006), creativity is bringing something into existence that is valued. It is a way for one to give value to what he / she possesses and how others give value to one as well. But for many people, creativity is a way of expressing themselves in ways that are more vibrant and more versatile that give a sense of satisfaction to a person.

Creativity is a highly philosophical thought, with no concrete ways to measure it. But if we look around us, we can see and feel that creativity is not meant to be measured but is meant to be observed,

understood, lived, and most of all be felt. This may not be among the many issues and concerns revolving around the lives of older adults, but this is a phenomenon that is existing and must also be given attention. The practical minds of the people nowadays focus on the concerns of older adults and the issues that are commonly being discussed in almost all media. However, we may tend to forget that like us, these older adults need to be understood from all dimensions, including how they express and enjoy their elderly years.

Initiating creativity has its own pace. Some may start it young, while other people develop it in later years of their life. But it is not on the length of time but how one is able to perfect what he has started

to make; something that is of value to others and to himself as well. Creativity is a multifaceted phenomenon that is existent since the start of life and is bound to be nurtured until the end. Though there may be phases in which creativity is dormant but it tells us there is a time for everything. Being old is a number, but never a matter of quality of work or productivity. Therefore, since the beginning of time and even until we age, this creativity always resides within us. Thus, the concept of Creative Aging shows that creativity continues to exist despite in the later years.

Understanding the concept of creativity among older adults gives them a sense of perspective of the kind of individuals they will be in their later years. It gives them a sense of anticipation of how they can enjoy life past their retirement years; where adjustment to life is being made and overcoming the onset of depression or any other older adult – related issues be made convenient because they are made to express themselves in ways which they did not have the opportunity in their younger and middle-age years. As one becomes an adult, people's creativity becomes less, but not in the traditional way. Their continued creative drop is more due to decreasing into a number of cognitive traps than the fading of old age. Creativity slowly fades away when not used. As they say, 'Use it or lose it.' One of the biggest culprits here is the simple pattern of human habit. Once people start doing something one way, they get contented with it and then do not anything to change or vary it. Everything is a phase; a process which one has to go through and eventually will be a part of the person that we will be.

This study was made to pave way for a better understanding of how the elderly remains to be involved and engaged in society through ways that are made more convenient and more creative. A look at the creative side of aging helps healthcare professionals as well as the family to address the needs of these individuals and be able to understand how they keep themselves and get a grasp of reality despite their age. It is through creativity that one is able to express oneself, limiting his / her own potential; a point in which, despite age, there will be an opportunity for one to reconnect and to continue connecting with the

creative side of them. Furthermore, it is the intent of the researcher to explore the concept of creative aging from a perspective of how he will continue to flourish and nurture one's creative capacities as one comes of age. This is an avenue in which health care professionals will better understand creativity among the older adults and better understand their full potential as creative older adults in the years to come.

METHODS

Theory Generation Process

The theory of creative aging among older adults was developed using an axiomatic approach. This study implored a deductive-axiomatic approach to develop a theory that explains and describes the occurrence of the phenomenon. This method is similar to logic, in that it starts with an existing theory that supports the phenomenon in issue and leads to a new hypothesis (Streubert & Carpenter 2011). Deductive reasoning as noted by Sternberg (2011) is a systematic and logical technique for arriving at a conclusion based on the agreement of several premises that are widely accepted to be true. Using deductive reasoning as pointed out by Creswell & Clark (2007) by the researcher entails the researcher from working from the 'top down', beginning with a theory, hypotheses, and finally facts to support the or refute the theory. A comprehensive review of related literature and studies was done initially to provide related knowledge and bases for the formulation of relevant axioms and propositions in the study. Using Google Search Engines, Google Scholar, and Proquest, the following words were put in and searched for, namely, *creative aging, creativity in aging, aging and creativity, creativity in nursing, nursing and creativity* which yielded more than a hundred thousand literatures and studies. These literatures were sifted though and were selected as to which is the most relevant to the phenomenon being explored for. Alligood & Tomey (2010) described the deductive process as the form in which specific assumptions are deduced from more general premises or assertions. Reasoning proceeds from general statements to specific conclusions. A theory that is established deductively follows a process with a series of premises called *axioms*, that is,

statements or propositions that are consequent from broader premises. The concluding statement is unknown which leads to the prediction of the theory and the formation of a hypothesis to be empirically tested.

The consistency of the axioms is presupposed from the beginning of the axiomatization process. There are different ways to prove the consistency of the axioms of a theory. This is due to the fact that the choice of the axioms can be motivated in different ways. Since truths and other non-falsities in a theory are all (intended to be) determined by the axioms, they have to be in the reaches of logical consequences drawn from the axioms. If the structures that are intended to be studied by axiomatizations do not exist and the axiom in question is not consistent, the whole process becomes nothing but a meaningful manipulation of figures. There are two ways of understanding consistency. First is where the axioms are presupposed to hold true in the structures they determine. Second is where they are presupposed to be not false in the structures. In both ways, the ultimate presupposition of axiomatization is the existence of the structures and the objects involved. Hence, consistency is presupposed in axiomatization from the very beginning.

Aristotle's conception of the axiomatic method can be seen as deduction-oriented in the following way: According to Aristotle, axioms speak about real entities which have cognitive dependencies with further truths. That is to say, the axioms are taken to be true as well. That is, their logical consequences belong to the same system of truths as the axioms. In such system, we have some given knowledge in terms of the axioms. Starting from the axioms we seek further knowledge in terms by asking further questions. The cognitive meaning of the axioms (as well as of the terms they involve) is either obvious or definable by what is obvious. So that axioms require further proof. Unlike the axioms, further truths are deducible from the axioms by syllogism.

A deductive axiomatic system or theory is build using the deductive process. The essence of axiomatic approach, as employed in logic and mathematics, is that set of claims called propositions is obtained by applying deductive logic to a more fundamental set of statements known as

axioms (Padua, 2012). In a deductive system, axioms reflect the basis statements. The steps that the paper followed are reflective of the deductive axiomatic approach in generating the theory (Padua, 2012), as illustrated in the Figure 1.

(see figure 1)

RESULT

Derivation of Axioms

Gene Cohen is a renowned personality in the concept of creative aging. Relating to the work of famous psychoanalyst Erik Erikson, a teacher of Cohen at Harvard, Cohen (2001) charted four phases in the second half of life, namely, (1) Re-evaluation, (2) Liberation, (3) Summing-up, and (4) Encore. The re-evaluation phase occurs in the age of 50s onwards when adults search for new ways to bring meaning to their life – the 'midlife crisis' from a positive perspective. Liberation phase occurs in the 60s and 70s in which added freedom from work and family fuelled creative endeavors, reaching some comfort about who they are, asking themselves "if not now, when?". The Summing-up phase which is from the 70s onwards is where people more urgently seek the meaning in life by looking back, summing up and giving back, where activities such as autobiography, storytelling and philanthropy are common. Lastly, the Encore phase which is from age 80 and beyond are marked by a desire to further contribute, affirm life, to enjoy one's place in family or community and take care of unfinished business.

Engaging in the different fields of arts influences the lives of older adults. McQuillan (2019) noted that the difference between those who experience a peak in creativity during their mid-twenties and those who are more likely to peak in their mid-50s is in the type of creativity involved. Hull (2007) noted that older adults who take up painting, writing, music and other forms of art developed a greater sense of control, or 'mastery' over their lives. Cohen (2001) added that these factors, namely, developing relationships and 'social engagement' improved older adults' immune system responses. For quite a time remarkable accomplishment were seen in later life. Many of these (achievements) are occurring not despite aging, but because of aging. Reed (2005) pointed out that creativity and productivity are not equivalent and that creativity grows, changes, and

evolves along with life span development according to the current Life Span Development Model. Creativity will always be part of a person's life; the more one ages, the more experienced they get. The more experienced one is, the more that they have a better grasp of the environment they are situated in. Developing a better understanding of the environment and relating it to the myriad experiences of a person leads to an improved level of creativity in a person's lifetime as they age. Thus, **Axiom 1 states that Creativity is ageless; it transcends all ages.**

In the course of time, one realizes that the need for creativity is always a part of every person regardless of how old one is. It is etched in the hearts of every human experience the desire and ability to create, to express creativity in ways that fosters life satisfaction. It helps us adapt to new atmospheres, survive with what life hands us, and helps us to express ourselves as human beings. Creativity is like a seed that is implanted in us the day we are born. As one progresses with life, the seed of creativity within them also grows. Every experience a person encounters influences the level of creativity, as it may motivate or demotivate the person. With time, the creativity of one does not disappear because the longer the time there is, the deeper are its roots in a person. It may seem that as one grows old, the creative side starts to disappear. On the contrary, the creative spirit has a period of waning yet it takes another form and degree once one reaches old age. Cooke (2006) noted that human creativity does not inevitably decline with age although it changes and matures. Instead, creative impulses occasionally get stronger with age in fields such as the arts as older people find the time, resources, and inspiration to explore writing, sculpture, art, music, photography, and other satisfying pursuits. In other words, age is not a handicap nor a disability, and researchers say new talents often bloom even as frailties such as hearing loss and fading vision appear. Older people have depths of experience to draw on as compared to the younger generation, they often already have many skills and they are not as determined by the need to prove themselves. Thus, the above mentioned supports **Axiom 2 which states that Creativity is innate: it knows no retirement age.**

Like any other individual, the formation of one behavior and overall attitude is relative to the

internal and external environment. The locale in which one is being settled will have an impact to how one adapts to the environment. Creativity, like any other attribute of a person, is attributed to how the person is influenced by the people around him and the different components present in the outside environment. The experiences met by an individual as he goes on with life will have an impact on the level of creativity he has. The intrinsic experiences of one person influence his perspectives on how to deal with everyday life and the degree of these experiences affects the ability of a person to handle every situation that is at hand. Furthermore, extrinsic experiences also affect a person's way of carrying out activities and tasks, and how they deal with the people around them. Creativity is a drive that is affected by intrinsic events and extrinsic components. Gowans (2006) believes that the arts give us a good opportunity for a sense of mastery and control; the opportunity to produce something new and beautiful offers real fulfillment and empowerment. The mind has a dominant influence on the body. A powerful interaction between the nervous system and the immune system has an effect on behavior and health. Positive emotions can also influence the immune system by boosting T cells, which act as a protective mechanism. Thus, the importance of overall health is essential for one to be able to maximize his creativity, supporting **Axiom 3 which states that creativity is influenced by intrinsic and extrinsic factors.**

According to Beal (2008), Dean Bette R. Bonder, PhD. of the Cleveland State University said that "People are happiest and healthiest when they are engaged in activities that are gratifying and meaningful", and in so many ways, those are or could be activities related to arts". Few people know about the good benefits that another kind of sustained exercise – participation in art programs that have participants stretching and bending their minds and "thinking outside the box" – seems to have on older adults. Nor are they aware of how easy it is to keep things dynamic after they have taken the plunge. Fitzgerald (2022) pointed out that creative thinking is a critical skill; not only for artists or musicians, but also for children and older adults alike as a way of thinking about – and being in – the world. It is through being creative that a person is able to get their senses, sensibility and spirit working together. Thus, **Axiom 4 states that overall**

health is essential to be able to maximize one's creativity.

DISCUSSION

Creativity is something that is rare. Needlessly, because of the way the mind works, it is rare in some individuals. It is rare in groups because of the groups' way of respond to new ideas. But with the use of techniques to get around the mind's limitations and ground rules for responding to others' ideas, any group can increase its creativity dramatically. Frugé (2012) pointed out that creativity is an innate process within all life, including each and every human being and to discover how to tap into this process and use it successfully in all aspects of living. Getting creative (Cohen, 2001) in your later years is a self-fueling engine. The more you do the more you can do. So far, Cohen added, the studies of creative aging, also referred to as productive aging – have been completed with people (between 65 and 103) who participated in organized art programs, such as painting classes, poetry writing workshops, or choral singing classes. Meier (2022) pointed out that creativity is the backbone of innovation; it helps one to achieve and be empowered, and being a creative individual allows one to live in freedom by thinking and acting with deep expression of one's purpose and values in an authentic way. One is not going to innovate by thinking the same old though or doing the same safe things, or reinforcing the way things have always been done or blocking new ideas by limited or negative thinking that reinforces the status of quo and the way things have always been done. One innovates by thinking creatively and by challenging and exploring the art of the possible. Thus, **Axiom 5 states that creativity is a matter of perspective: it is doing things your own way, when new or different way is done to old things.**

The aging brain (Carson, 2015) has a resemblance with the creative brain in numerous ways. For instance, the aging brain is more distractible and somewhat more disinhibited than the younger brain (so is the creative brain). Aging brains on tests of crystallized IQ (and creative brains usually preserved knowledge to make novel and make original associations) score well. These changes in the aging brain may make it ideally suited to achieve work in a number of creative fields. So instead of encouraging retirement at age 65, perhaps we as a society should be promoting a shift at age 65:

transition into a creative endeavor where our emergent resources of individuals with aging brains can preserve their wisdom in culturally-valued works of art, music, or writing. McQuillan (2019) pointed out that your most creative period is more a product of the type of creator you are and the nature of your work than of the particular field you are in – extend to other academic and scholarly disciplines as well. If one is a conceptual thinker, they are likely to be more creative when they are younger; if one is an experimental thinker, they are likely to do their most creative work when they are older, perhaps even past middle age. Thus, **Axiom 6 states that some older adults reach creative heights later in life.**

(see figure 2)

Creativity is something inherent and at the same time a multifactorial phenomenon that affects how a person perceives things around him. As shown in the diagram, creativity transcends all ages, thus, it persists in a man's lifetime. Health as an essential aspect of creativity is a concern in an older adult. The manifestation of creativity in a person has its highs and lows, thus, the onset of creativity in an older adult is early or late, depending on the circumstances. The different axioms presented above thread through the concept of creative aging in older adults.

Development of Propositions

Emergent from the identified axioms are the different propositions developed by merging two or more axioms. Hence, the propositions are presented as follows:

Proposition 1. Creativity does not decline with age, however, with physical disabilities, it limits the level of creativity. Bradford (2002) noted that there is creativity every day, like solving sticky human struggles or figuring out how to work smarter and become more efficient. Being persistent, resisting conformity, and willingness to take risks is a characteristic of creative people. Creativity or in other ways, being creative, gives one a sense of control over the external world, conveying balance and order to modern life, which is increasingly manifested by uniformity, sameness, and an overemphasis on productivity. In everyday life, opportunities for creative pursuits prove to be very

advantageous and meaningful to people with sight impairment, hearing impairment, and other physical disabilities. To some, it even becomes a new life force, allowing them to course through difficult and challenging days with a greater sense of ease and a sense of purpose. Gustafson (2014) emphasized that the beauty of aging is that there are opportunities for new perspectives based on reflection and greater appreciation for the importance of time. It is also a most humbling phase in life when we comprehend how little, if anything, we are able to achieve beyond the narrow horizon of our short presence. And yet, it is up to each person how their day, up to the last, continues to clarify. Creative older adults who have outlets that they can indulge in are proven to be happier than other without. Proposition 1 is deduced from Axiom 1 (*Creativity is ageless; it transcends all ages*), Axiom 2 (*Creativity is innate; it knows no retirement age*), and Axiom 3 (*Creativity is influenced by intrinsic and extrinsic factors*).

Proposition 2. Creativity aids in promoting a healthy and productive state of aging; the more active and engaged, the better. Health is a very important component as one grows old, and being happy and healthy as one grows old is another consideration. Gustafson (2014) noted that persons endowed with certain abilities tend to fare well in other ways, both physically and mentally, as compared to those whose existence mainly consists of monotony and repetitions. The challenge of aging is coming into our own, and not just staying young but growing old as a whole. Goldman (2009) pointed out that human destiny is interwoven in the process of aging with a challenge for other others to embrace the challenges and aridity of aging and figure out the person you are now and now what you have been. The importance of a creative activity poses manifold benefits which relieve and improves symptoms of anxiety and depression and help cope with a physical illness or disability. How one cultivates their talents and capabilities helps in handling everyday situations. These day-to-day experiences affect their perspective on things. The difficulties, the challenges, and the responsibilities that one has to undergo is everyday life becomes an ingredient for one to be able to go through with life. Proposition 2 is deduced from Axiom 3 (*Creativity is influenced by intrinsic and extrinsic factors*), Axiom 4

(*Overall health is essential to be able to maximize one's creativity*), and Axiom 5 (*Creativity is a matter of perspective: it is doing things your own way, when new or different way is done to old things*).

Proposition 3. Creativity is influenced by intrinsic and extrinsic factors; these may enhance or limit creativity. As one grows old, the experiences become richer, and the understanding of reality becomes wider. The level of creativity takes another path making things seen from a different and meaningful perspective. Being a creative older adult in the later years of life is not just about making something but how something creates a better impact in the lives of every individual and there are times the realization takes a certain amount of time. Carson (2015) pointed out that the expectation of people toward older adults should be changed. Instead of referring to them as a form of burden, we should consider the productivity of older adults throughout the course of their lifespan. Each individual should take the challenge of becoming an older adult or a soon-to-be older adult: first, contemplate one life lesson that one should like to share with the younger generation, and secondly, one should decide upon an avenue of creativity wherein the lessons can be embedded – perhaps through writing a novel or a painting or a tune from a musical piece. How one performs a certain task of responsibility is highly influenced by internal and external factors, be it one's own personality, attitude towards work, the workplace itself, the people around, the changing weather, and all other possibilities that occurs in a day. Proposition 3 is deduced from Axiom 3 (*Creativity is influenced by intrinsic and extrinsic factors*), Axiom 5 (*Creativity is a matter of perspective: it is doing things your own way, when new or different way is done to old things*), and Axiom 6 (*Some older adults reach creative heights later in life*).

CONCLUSION

Creativity is the expression of transforming novel and abstract ideas into something that is real and concrete: a reality, characterized by being able to perceive and view the world and everything around in new and wonderful means, seeking for obscured patterns and connecting unrelated concepts, and to make general and relevant solutions. It is creativity that one thinks, and then produces a way for one to

act on ideas that are being conceptualized in one's mind. Creativity is a way of life: as one continues to create, to do, to make, is a way of leading a productive and healthy life as it is a form of exercise. The theory of Creative Aging assumes that creativity is an innate ability or every person and it will not stop at old age and is motivated by factors that may limit or enhance creativity. The expression of creativity does not stop even if one reaches older years, and by creativity, it is a way of how one thinks, perceives, and expresses. The more one is able to be engaged in a creative pursuit leads to a healthier and more productive state of aging.

Creativity is innate, and we are born with it. With experience, an older adult's creativity continues to flourish. It is thought that with any physical disability leads to the creativity being stopped. However, it is by nature of creative individuals to persist creating despite disability. The passion to create never stops, however, the ability to produce is diminished but never totally gone. There are intrinsic factors that directly and indirectly influences a person's creativity, that may either enhance or limit one's level of creativity. Intrinsic factors such as passion, motivation, good health are the ones that fuels an individual to nurture and to mobilize his creative potential. Extrinsic factors such as rewards, praise and appreciation, social support, and environment are the ones that gears an individual to express his creative potentials. These factors in creativity enhance an individual's capacity to become more creative and be able to express in manners which is accordance to his perspective. Thus, when creativity reaches a turning point, the process is being continued as the knowledge and principles are being passed on to younger generations.

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STEPS IN THEORY DEVELOPMENT

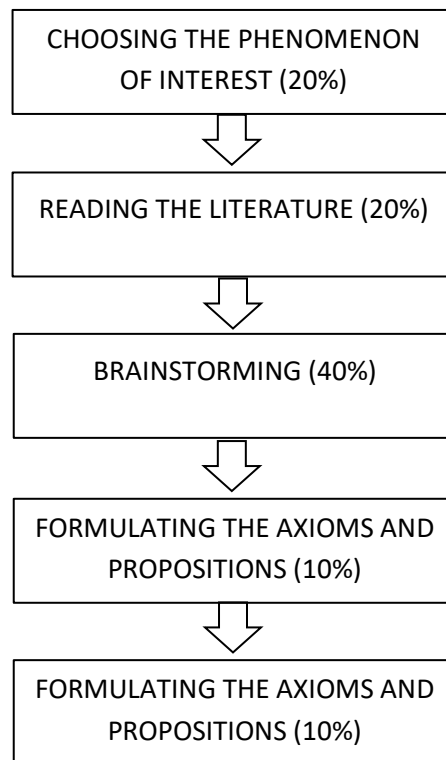


Figure 1. Deductive Axiomatic Approach in Theory Development
(Adapted from Padua, 2012)

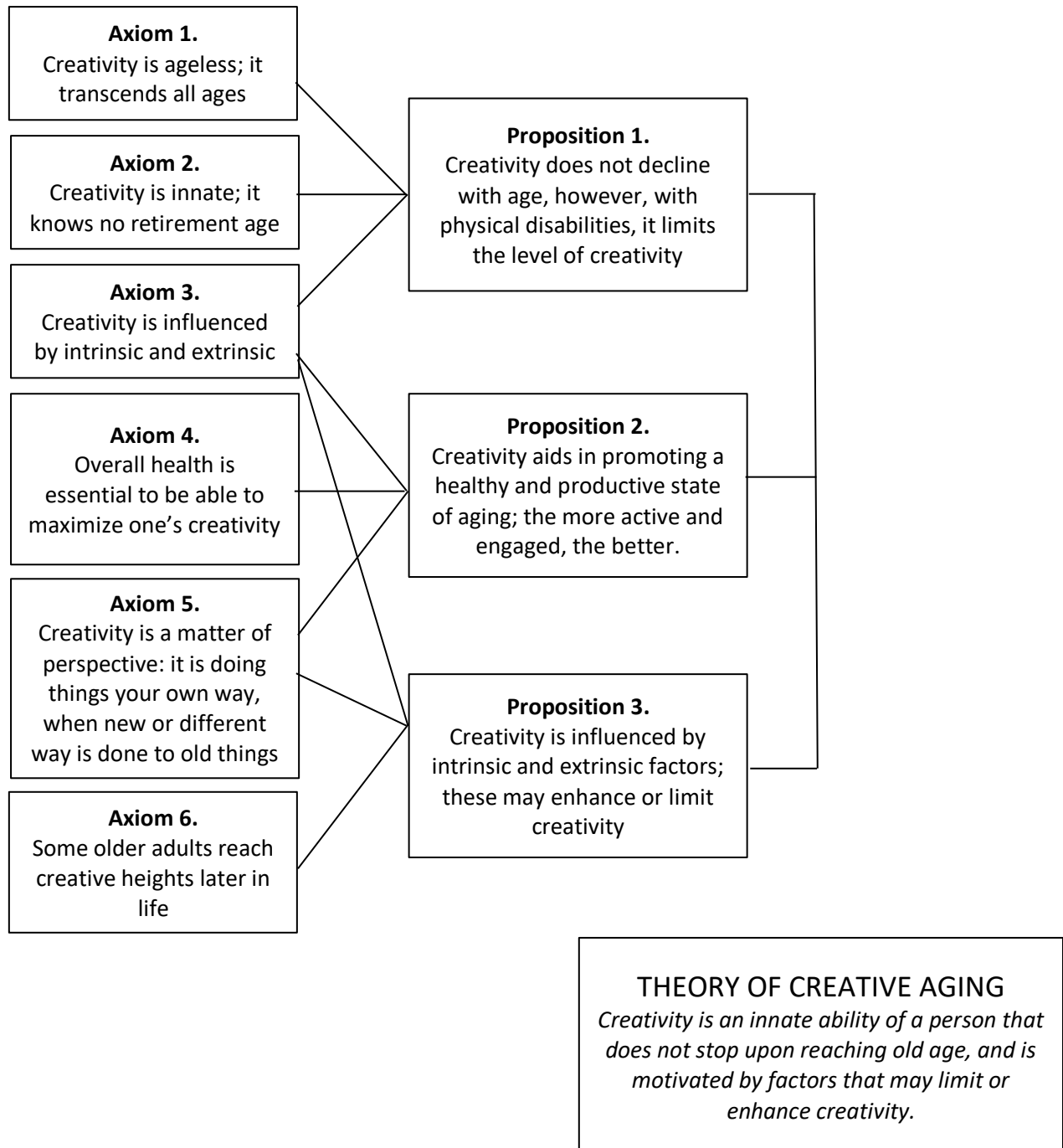


Figure 2. The Axiomatic Approach in Developing the Theory of Creative Aging