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Generativity and subjective well-being in active midlife and older adults

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Abstract

The present study intended to achieve greater understanding about generativity, the concern and care for next generations, and its relation to subjective well-being in University Professors in midlife and older adulthood. Replicating previous studies, we found a positive relationship between both generativity and subjective well-being. This relationship was mediated by age, being present only in middle age adults, and apparently not related in older age. Furthermore, results have shown that generative action is higher in women than in men, whereas no significant differences were found on generative concern or commitment. In conclusion, this study reinforces the importance of promoting other's well-being for a person's own well-being and illustrates the complexity inherent to the constructs studied. Exploring bridges between individuals' generative characteristics and society's intergenerational initiatives should be a European priority to achieve an encompassing society.

Introduction

Gerontology, as a scientific venture, encompasses a wide variety of domains that articulate their theoretical and empirical findings in order to achieve comprehensive answers for the complex challenges posed by the human ageing process. As stressed by Ferraro and Schafer (2008, p. S5), "Gerontology is a relatively nascent field that draws from many disciplines". Almost as an attempt to return to the ancient times, where Philosophers' queries concerned every human domain, from the body and soul to society, gerontology has been restlessly searching for a theoretical umbrella that can cover and explain the ageing process, and the way society both shapes and is shaped by such process. The complexity that this diversity entails is further amplified by the several levels of analysis that can be object of gerontology's study, from the individual, family, community, nations, and society to the world as a single entity.

Being interdisciplinary is both an essential feature to integrate the multiplicity of factors that intervene in the ageing process, and a challenge given the incommensurable amount of knowledge that each domain has been yielding for centuries and more intensively in the last decades at the scientific level. Presently, nonetheless, the field of Gerontology is still more multi, than interdisciplinary. The structure of the *European Masters' Programme of Gerontology* is in itself the reflex of

such multidisciplinary characteristic. Its modular segmented nature takes students - who come from heterogeneous backgrounds such as medicine, nursing, psychology, and engineer to mention a few - through a journey where a glimpse of each of gerontology's main domains is offered at different European Universities, planting in students a seminal drive to further explore each of these areas, namely psychogerontology, social gerontology and health gerontology.

There are nonetheless several bridges between different gerontology approaches built as a result of issues that receive common interest as it is exemplified by the focus on the World's policies and their impact on the individual's ageing process (e.g., the relationship between countries' Gross Domestic Product - GDP - and older people's well-being). Such interaction, between political guidelines at the macro level and individual lives at the micro level, is mediated by numerous factors whose identification and integration are goals that many scholars are still struggling to reach and which will probably never be fully attained given the evolving nature of society and the intrinsic probabilistic nature of science.

Although the non-existence of universal and timeless answers for the challenges posed by older age, gerontology and social policies must go hand by hand in order to secure that society evolves in the direction so as to accommodate the inevitable ageing of world's population. A concern that has been shared by both gerontologists and policy makers is the *relationship between generations* as a key factor for society's sustainability and as an important area for predicting future trends on society's structure.

The intergenerational theme has been incorporated in a wide variety of fields. In fact, within this emergent multidisciplinary domain, characterized by rich diversity, more than 50 different intergenerational categories have already been identified (Lawrence-Jacobson, 2007; Kaplan et al., 2006). From child development to citizenship and age integration, to mention a few, the main goal of these approaches seems to be to improve the lives of people from all generations through intergenerational collaboration, public policies, and programs. Moreover, the by-products that arise from intergenerational action seem to surpass individual lives to influence society in general.

In this aim, the epigenetic theory proposed by Erikson (1964), portraying individuals' psychosociological development along the life cycle as a process inseparable from the social context where it takes place, is an encompassing framework for integrating psychogerontology and social gerontology in regards to intergenerational relationships and particularly people's concern for the next generation, a concern named *generativity*. Being considered "the psychosocial nature of generational exchange" (Imada, 2004, p. 83), generativity is an important theoretical construct to explain intergenerational relationships at the individual's level. In addition to being an important factor for intergenerational exchange and the future generations' well-being, generative concern also seems to be an interpersonal issue by itself, being transmitted from parents to their children and having an important influence on offspring's well-being (Wai, 2007).

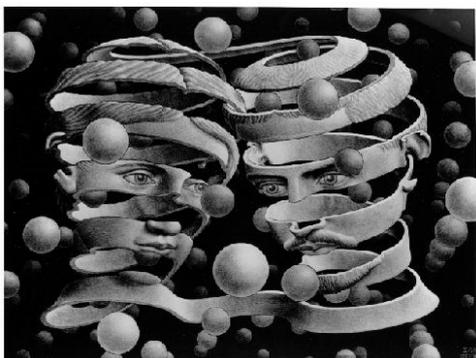
Therefore, the present study will adopt Erikson's theory and McAdams and de St. Aubin's (1992) subsequent model, which has elaborated on Erikson's theory to study the generativity concept in particular. Confining the focus under scrutiny to the individual's level, midlife and older adults' concern to care for younger generations and the relationship between this concern and subjective well-being will be analysed using a sample of individuals whose professional career entails directly addressing intergenerational relationships, i.e., University professors. The concept of generativity, then, will be studied in a typical context of generativity that is with people who are in their middle or late adulthood and who teach and create new knowledge through research. In the present study, nevertheless, such activities will not be considered generative by themselves since their performance can vary greatly whether it results from self-interests or a concern for others' well-being, the latter being considered an essential feature for generative expression. Specifically, the study will focus on the relationship between generativity and subjective well-being to help us further understand the role of generativity - considered an essential component to intergenerational solidarity - in the lives of those who have assumed the endeavour of training and preparing future generations for the construction of knowledge that will help sustain and contribute to society's evolution.

Conceptualization

Generativity | In the framework of a developmental life course perspective, Erik Erikson was pioneer in coining the term generativity, conceptualizing it as an especially important psychological quality that results from an interaction between biological impulses and social factors (Novo, 2003). In well adapted midlife adults, generativity is expressed by the urge to care for the following generations (Erikson, 1965; Manheimer, 2004). Etymologically, it derives from the words generation and generate (Yamada, 2004), and Erikson (1965; p. 258) defined it as “the concern in establishing and guiding the next generation.”

Suggesting eight developmental stages, within which a series of psychosocial tasks must be accomplished, Erikson contends that the developmental challenge of becoming generative juxtaposed with following a path of stagnation becomes the main endeavour faced by midlife adults. The successful management of this task, similar to what happens in the other psychosocial stages (see fig.1), involves achieving a balance between their constituting poles (Van Hiel, Mervielde, & De Fruyt, 2006; Marcia, 2002).

Fig. 1 | Human Developmental Stages of Erikson’s Epigenetic Model



Escher’s (1956) Bond of Union as a metaphor of personality’s development conveyed in Erikson’s theory (Novo, 2003).

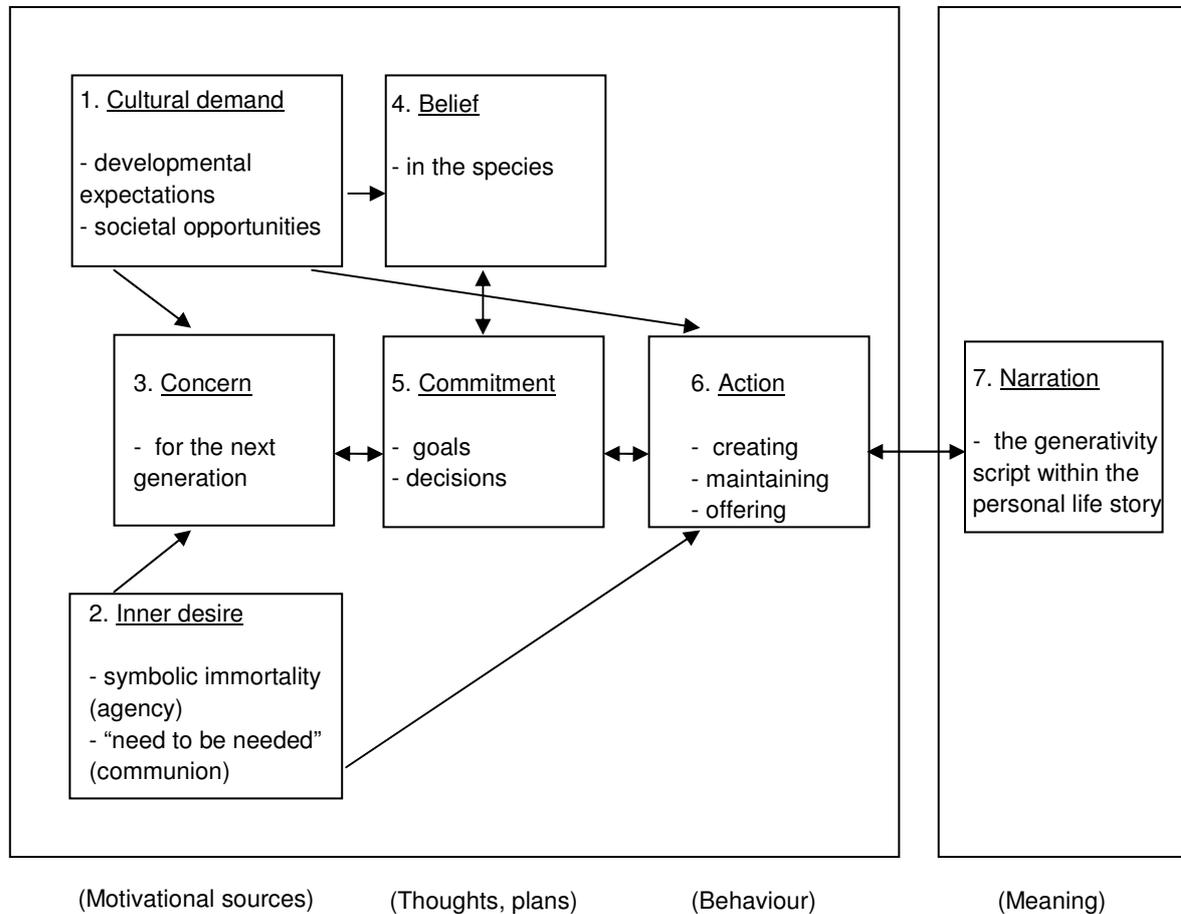
I	trust vs. mistrust (hope)
II	autonomy vs. shame (will)
III	initiative vs. guilt (goal)
IV	personal effectiveness vs. inferiority (competency)
V	identity vs. role confusion (fidelity)
VI	intimacy vs. isolation (love)
VII	generativity vs. stagnation (solicitude)
VIII	ego-integrity vs. despair (wisdom)

Later reformulating his theory, Erikson contended that socio-psychological tasks are not exclusive to a certain life stage, but co-exist along life. In fact, the epigenetic development articulated on Erikson's theory implies that all developmental challenges are present at all times, although some core processes such as identity formation or generativity become more prominent during specific phases of life (de St. Aubin, 1998; Novo, 2003). As an illustration, the challenge of trust vs. mistrust assumes greater relevance in young childhood, but it is revisited in all the following stages and addressed differently since individuals' personality is mainly determined by the dynamic between individuals' intrinsic factors and their changing social and environmental surroundings, in detriment to each one of these components separately (Novo, 2003).

Choosing midlife adulthood as the stage where generativity takes on the main role, Erikson nonetheless considered that "generativity and caring would not cease at the gateway to old age but would be revisited and re-evaluated in light of the search for meaning and the quest for wisdom" (Manheimer, 2004, p. 116). Erikson's concept of positive human psychosocial development, then, entails moving from a self-centred orientation to other-centred orientations (Slater, 2003). Overall, generativity is sustained by a basic general belief in the species and in the future of human life.

McAdams, Hart and Maruna (1998, p. 9) built on Erikson's model and offered an encompassing definition, stating that "generativity consists of a constellation of inner desire, cultural demand, conscious concern, belief, commitment, action, and narration revolving around and ultimately justified in terms of the overall psychosocial goal of providing for the survival, well being, and development of human life in succeeding generations" (see fig. 2). Specifically, generative concern - which will be one of the present study's foci - entails different content domains, such as ideas of teaching and passing on knowledge, making positive contributions to society, caring for and taking responsibility for others, being creative and productive, and leaving an enduring legacy (McAdams et al., 1998).

Fig. 2 | Seven Features of Generativity (McAdams and de St. Aubin, 1992)



Generative commitment, in turn, is defined as investments people do in goals to act generatively. In the transference from generative concern to generative commitment, general beliefs in the goodness of human life can be enhanced or, in its absence, undermine such transition. In fact, considered by some to be a universal characteristic, there are, nonetheless, cultural influences that can shape generativity outcomes (McAdams & de St. Aubin, 1992; McAdams, Hart, & Maruna, 1998; McAdams, 2006).

To better understand the “roads” that lead from vague generative concern to concrete actions, besides the global approach offered by McAdams and colleagues (e.g. McAdams et al., 1998), a role-specific perspective has also been adopted (MacDermid et al., 1996; MacDermid et al., 1998). As shown by MacDermid and colleagues’ research, this differential stance gains relevance when one considers that

the study of qualitatively distinct forms of generativity enables the tracking of their attitudinal and behavioural concomitants (MacDermid et al., 1996; MacDermid et al., 1998). For instance, people can be generative in their professional role, but not in their family role and vice-versa.

In addition to the generative profiles, different prototypic styles (Bradley and Marcia, 1998) have also been developed. Within this scope, involvement, or active concern for the growth of oneself and others, and inclusivity, or the scope of one's caregiving activity, were identified as the most salient dimensions of stagnation and generativity (Bradley, 1997; Bradley & Marcia, 1998; Van Hiel, Mervielde, & De Fruyt, 2006).

Being generative may also be seen as a luxury not affordable by those who are struggling for their own survival (e.g., McAdams & Logan, 2004). Alternatively, generativity can be considered as a fundamental ingredient for people's own psychosocial survival (Novo, 2003). Supporting the latter perspective, the presence of generativity can be seen even in situations of extreme poverty or crisis, where people mobilize the few resources they have to help others (e.g., Hones, 1996). People have to be both beneficiaries of and contributors to society in order to have a sense of belongingness to the group to which they are attached. This will allow them to rely on the group's protection and at the same time feel responsible for providing care to others. Overall, generativity must be present for people to psychologically and socially adapt and to be fulfilled as human beings. In this context, generativity is a basic quality for psychological functioning, preventing people to enrol in a self-centred path that throws them into an autistic society.

In contrast, instead of thinking about what can be given to others, people may be concerned on what they can get from others (Hamachek, 1990). Erikson described these people who are too self-preoccupied as illustrations of stagnation. This self-absorption has been defined as the antithesis of generativity, although some data have been presented indicating that generativity and stagnation are not simply opposite poles but constitute two different related dimensions (Van Hiel et al., 2006). Specifically, stagnated people are characterized by being too concerned with their own well-being, becoming unable or unwilling to extend that care to others (Slater, 2003;

de St.Aubin, McAdams, & Kim, 2004). An extreme example of stagnation at society's level is given by the holocaust. Similar to other genocides that history has sadly witnessed, its aim was to exterminate an ethnic group to ensure that there would be no next generation in that group (Kay, 1998).

Being such an important developmental challenge, the concepts of generativity and stagnation have been the subject of large amount of research. Particularly, Dan McAdams and his collaborators' investigations have been a fundamental contribution to dissect the several variables involved in generativity. Besides being multidimensional, the non-linearity that lies under generative behaviours can be seen in Cohler et al.'s (1998, p. 300) study about the narratives of gay men in middle adulthood, illustrating that "because opportunities for generative behaviour are socially regulated, (...) generativity may be experienced in distinctive ways and at different points of the adult life course".

McAdams and de St. Aubin's (1992) model has found empirical support in several studies. For instance, generativity has been shown to be "the single strongest and most consistent predictor of many dimensions of socially responsible behaviour, including volunteerism and contributing one's time and one's money to family members and to community concerns" (Rossi et al., 2001 as cited by McAdams and Logan, 2004, p. 23). This desire to contribute and to leave a legacy, as well as a constructive environment for promoting actions that can fulfil it, achieves a higher level of importance in the face of an increasingly individualistic western society that seems to carry in itself a trend towards individualistic concerns. Probably, the same ingredients are present in order for generativity to develop, but their interaction and final results can be expected to vary greatly. Its ultimate aim, nonetheless, is always future generations' well-being. As Manheimer (2004, p. 121) pointed out, society must provide "avenues for bringing young and old together in cooperative learning ventures". Given that generativity is aimed at benefiting the next generation, we would add to Manheimer's advice that generativity is the concrete of such avenues.

Although recognizing that life circumstances may preclude generative actions which in turn may be influenced by socio-demographic characteristics, Graussbaum and Bates (2002) found no association between generative behaviour and variables

such as gender, education level, employment or marital status. Their results support the assertion that generativity has an essential structural function in the psychosocial development regardless of gender or other socio-demographic characteristics. In fact, and at the social level, Keyes and Ryff's (1998, p. 255) research has demonstrated that the presence or absence of generative feelings and behaviours contribute to explaining "how social inequalities possibly promote or hinder adults' health and well-being".

In sum, as initially suggested by Erikson (1965) and as later argued by Imada (2004; p.93), "generativity plays out beyond the private domain of family and is expressed at a societal level in the public sphere as social responsibility, in the sense that it contributes to the sustainability of society". At a broader level, then, we can find generative societies that take into account the long run effects of present policies, being environmental concerns an example *par excellence* (Peterson, 2004).

Overall, the fact that individual differences in generativity have predicted outcomes such as civic engagement, voluntarism, and subjective mental health supports the construct validity of generativity assessment as a global measure (McAdams, 2006). Studying such a construct in this manner, subsequently, can drive us further into the direction of an encompassing society in which people's well-being is achieved through thoughts and actions about intergenerational cooperation. In the end, this is an essential approach to address one of the most ancient and disturbing problems of society that is *intragenerational* social inequalities. Essentially, the cooperation between people from different ages, backgrounds and cultures can help build a society that offers equal access to life opportunities.

**Generativity
and Well-
Being**

Although divergent data have been found in research, generativity has been consistently shown to be a multidimensional construct that can vary in time and in accordance to the roles performed, being differently shaped by biological, educational, social, cultural and historical factors.

Similarly, well-being, defined as people's perception and evaluation of themselves and their lives, is a global and multidimensional concept. It encompasses subjective, psychological and social well-being, concerning affective-emotional states, psychological functioning and social functioning

respectively (Lima & Novo, 2006). The three specific concepts – i.e., subjective well-being, psychological well-being, and social well-being – have arisen from different theoretical and empirical groundwork (for a review, see Novo, 2003 and Keyes, 2002).

The concept of subjective well-being, in particular, resulted from empirical work conducted primarily by Diener and its theoretical foundations have been built upon an hedonic perspective. This dimension has been operationalized through indicators of life satisfaction and positive affect or happiness. Being of every citizen's interest, these indicators are also a matter of political concern since they are used as measures to assess policies' effects, working as barometers of self and society (Novo, 2005; Keyes & Ryff, 1998).

At the individual level, research has repeatedly shown positive correlations between generativity, physical health perception, life satisfaction and both subjective and psychological well-being (e.g., McAdams, de St. Aubin, & Logan, 1993; Keyes & Ryff, 1998; Ackerman, Zuroff, & Moskowitz, 2000; Grossbaum & Bates, 2002; Morfei, et al., 2004; Huta & Zuroff, 2008). Also, generativity, along with interpersonal relations, physical functioning, and wealth, has been identified as an important factor for quality of life in older age (Cheng, Chan, & Philips, 2004).

Although most studies indicate a positive relationship between generativity and these variables, a number of studies have verified that such correlations are not linear. The relationship between generative concern and life satisfaction, for instance, has been shown to be mediated by ego development, i.e. high levels of generativity concern were identified as a strong predictor of life satisfaction among adults' with high levels of ego development, contrary to a rather weak relationship found in adults who received lower scores in ego development (McAdams et al., 1998). The inner desire to leave a personal legacy that persists beyond one's lifetime (i.e., symbolic immortality), has been also identified as a mediator of the relationship between generativity behaviour and well-being, contrary to the need to be needed and society's expectation that one should be a contributing member, which showed no meditational effect (Huta & Zuroff, 2008).

Furthermore, different components of generativity have revealed different levels of correlation with subjective well-being and life satisfaction, attesting to the complexity and multi-dimensionality of both constructs. As illustrated by previous research, whereas generative concern has been shown to be correlated with subjective well-being, generative behaviour was not correlated with subjective and psychological well-being (McAdams et al., 1993; Grossbaum & Bates, 2002; Morfei et al., 2004). Grossbaum and Bates' (2002) results further indicate that the lack of such relationship is not influenced by socio-demographic variables. McAdams' extensive study of narratives and life stories has provided possible reasons for this pattern, namely the fact that a generative approach to life may "involve as much frustration and failure as fulfilment" (McAdams, 2006, p. 94). Thus, in order to provide for the following generation, one must occasionally be willing to do sacrifices and postpone self interests, which may leave no room for an hedonic perspective of life but contribute to a sense of fulfilment and a positive experience of ageing instead (Warburton et al., 2006). We could expect, then, to see stronger correlations between generativity and mental health than between generativity and life satisfaction. Alternatively, and as pointed out by McAdams et al. (1998), society demands to have generative actions may compromise satisfaction with life when one does not act accordingly to what it is expected from him or her.

Well-being has been shown to vary in accordance to external factors, such as socio-demographic characteristics, but also by broader macro-level variables. In fact, Lima and Novo (2006) research, based on data from the European Social Survey, has challenged a universal model of well-being, stressing its contextual and social determinants. Subjective well-being, for instance, has been shown to be consistently and significantly moderated by country's developmental level, presenting particularly low levels among the Portuguese. Similar results were found in regards to recent retirement where Portuguese retirees expressed the lowest levels of satisfaction with life in a cross-cultural comparison of six European countries (Fouquereau et al., 2005).

As such, it is imperative to consider the complexity and different influence of contextual factors on generativity and well-being in order to avoid incurring in abusive generalizations of previous findings. Keeping such perspective in mind, we will

subsequently take a step forward into the pragmatic realm by briefly reviewing behavioural expressions of people's generative concern and motivation. First, nevertheless, it is important to clarify what type of behaviours can be classified as generative through exploring the aim that underlies its expression.

Throughout human evolution, "getting along [communion] and getting ahead [agency] are the two great problems that each person must solve." Hogan, Jones, & Cheek, 1985, cit. by McAdams et al. (1996)

**Generativity
and Agency
vs.
Communion**

Introduced by David Bakan in 1966 (McAdams et al., 1996), the distinction between agency and communion still deserves the attention of vast research, being considered one of the most influential ideas in the field of today's personality psychology.

As described by McAdams et al. (1996, p. 346), "agency encompasses a wide range of motivational ideas, including the concepts of strength, power, expansion, mastery, control, dominance, achievement, autonomy, separation, and independence". Similarly, it has been defined as an organismic tendency toward self-expression, self-expansion, self-protection, self-development, and all other goals promoting the individual self (McAdams & Logan, 2004).

In western society, where an ethic of individualism prevails (Bellah et al., 1985 as cited by McAdams et al., 1996), a strong presence of agentic themes on people's accounts of their projects and activities is expected.

Communion, in contrast, includes "motivational ideas of interpersonal connections such as love, friendship, intimacy, sharing, belonging, affiliation, merger, union, care, and nurturance" (McAdams et al., 1996, p. 348). Therefore, agency refers to the motivation to achieve for the self, whereas communion is characterized by a motivation to merge with others, "giving up the self for the good of something beyond the self" (McAdams & Logan, 2004, p. 19).

According to McAdams and Logan (2004), generativity requires people to have high levels of both agentic and communal motivations. They both constitute superordinate human motivations for achieving generativity (McAdams et al., 1996; Grausbaum & Bates, 2002). In fact, drawing from Erikson and Bakan's writings, McAdams, Ruetzel, and Foley (1986, p. 802) initially conceptualized generativity as a two-step process:

"In the first step, one generates (produces, creates) a product which represents an extension of the self (and, according to Becker, a claim on immortality). Then, one renounces ownership of the product, granting it a certain degree of autonomy and offering it up to others. Whereas the first step is a powerful extension of the self, the second involves a surrendering of the self in the sense of renouncing control and offering the generated product to others as a "gift." With respect to Bakan's (1966) fundamental duality of human existence, the first step is an example of agency or expanding and asserting the self, and the second step is communion or merging the self with a larger environment of which the self is a part."

Thus, McAdams contends that generativity can be manifested in either agentic or communal ways. In agentic generativity, life interests concern the self and the generative individual aims at being remembered after death. The communal generative adult, alternatively, relinquishes self-interest and focuses on those who will come after (McAdams et al., 1986; Morfei et al., 2004).

Other empirical data has supported an additive model, indicating higher levels of generativity when midlife adults are high in agency or communion. As illustrated in Ackerman, Zuroff, and Moskowitz's (2000) study, generativity did not require high levels of both agency and communion, but only the presence of one of them. Nevertheless, the authors caution that thresholds may exist, below the levels found in their samples, such that individuals with very low levels of either agency or communion cannot develop generative concern. They also make reference to McAdams and de St. Aubin's three different forms of generativity to provide a plausible explanation for such association, where *"creating"* is a primarily agentic form of generativity, *maintaining* is primarily communal, and *offering* requires both agency and communion" (Ackerman et al., 2000; p. 37). According to these authors, whereas the additive model may be present in the first two generative expressions, the

interactive model proposed by McAdams may apply only to the “offering” form of generativity.

Regarding the latter, and as stressed by Magalhães and Gomes (2005), the main individual contribution to society in our culture is made or “offered” through our professional activity. In their study, generativity had a positive correlation with career commitment and a negative correlation with career entrenchment. The correlation between generativity and career seemed to be mediated by personality variables, varying in accordance to the type of vocational interest. Tracing a parallel to University professors’ roles, we could consider research activities as an agentic generative behaviour, in the sense of searching for the mastery of a certain subject or creating something new that could immortalize the self, whereas teaching activities, on the other hand, can be regarded as communal generative behaviours, since professors relinquish from their research time to share and pass along knowledge to younger generations. Nevertheless, as mentioned previously, we can only assume that being a University Professor may indicate greater disposition for performing generative acts, but we cannot assume that generativity is present simply by having such professional role, since the motivation underlying it may be for self-interests only and not for the well-being and interest of younger generations which is considered fundamental for generativity presence. As Erikson contended (1963), productivity and creativity are part of generative efforts, but cannot replace it. Above all, it requires the will to benefit others and the capacity to give to others (Keyes & Ruff, 1998).

**Generativity,
Life Planning
and Activity
Patterns**

The seven dimensions identified by McAdams and de St. Aubin (1992) - i.e. inner desire, cultural demand, conscious concern, belief, commitment, action, and generative narrative - have been shown to be separate dimensions although they are interrelated and influence each other in ways yet to be clear. For instance, generative concern and generative behaviour seem to be closely related, but the presence of one does not necessarily imply the presence of the other. Nevertheless, we can assume that generativity, as a developmental task, influences the way people prioritize their actions and manage their lives, being indirectly reflected on

people's activity patterns and their preferences.

We will then take a closer look on the way people plan their lives as they age according to empirical data and some of the main psychosocial theories of gerontology.

In particular, regarding the theories of activity involvement in late adulthood, two contrasting perspectives have long co-existed in gerontology's literature (Fortuijn et al., 2006). One perspective was developed by Cummings in the 1960s and it views inherent social-psychological changes in the ageing process as being characterized by progressive decline and disengagement. People, then, become less active through a reciprocal and natural disengagement process where the older adult retreats from society and society withdraws from the older adult (Cummings et al., 1960). This disengagement process, in turn, would lead to "a more self-centered and idiosyncratic style of behavior" among older adults (p. 35). This perspective is clearly incompatible with generativity in older age.

The other opposing perspective comes from activity theory. Pertaining to a homeostatic or equilibrium social view, this theory assumed that when change occurred, the typical response was to restore the previous equilibrium. Built upon some of activity theory's assumptions, a more recent perspective is offered by the continuity theory which holds that not only do older adults maintain an activity involvement pattern, but that being active is a prerequisite for "successful ageing" (Atchley, 1989; Baltes & Baltes, 1990; Rowe & Kahn, 1997; Parker, 1999). According to Atchley (1989; p. 183), continuity theory's central premise is that, "in making adaptive choices, middle-aged and older adults attempt to preserve and maintain existing internal and external structures". This process is characterized by continuity, defined as the use of familiar strategies in familiar life domains, and expressed through coherence or consistency of patterns over time. For example, the most common pattern of adjustment to retirement is to maintain the same general set of personal goals (Atchley, 1982a, 1982b as cited by Atchley, 1989). Contrary to the static view conveyed by activity theory, however, the concept of continuity assumes evolution. Rather than a continuous movement towards the same equilibrium, a new

homeostasis is achieved in each stage through the adaptation of people's goals to their abilities.

Regarding the relationship between people's goals and perception of time, for instance, several studies have given support to Carstensen's theory of socioemotional selectivity (Carstensen, 1992; Carstensen et al., 1999; Lang & Carstensen, 2002), indicating that individuals who perceive future time as being limited prioritize emotionally meaningful goals (e.g., generativity, emotion regulation), whereas individuals who perceive their future as open-ended prioritize instrumental or knowledge-related ones. This model helps to clarify previous studies that have suggested a readjustment of life goals as age increases (Campbell et al., 1976 cit. by Lima & Novo, 2006).

Human action has also been extensively studied at the macro-level, analysing its various socio-cultural influences. For instance, data as shown that while life-management strategies seem to have a considerable protective effect - particularly when people have limited resources (Jopp & Smith, 2006) - there is some evidence that as age increases, life planning decreases (Prenda & Lachman, 2001). Although studies that analyse age and sex differences in future planning have yielded inconsistent findings, research on the relationship between education and income on the one hand and future planning on the other hand has, nevertheless, found a significant, positive association which may indicate that these socio-demographic variables may exert greater influence on people's plans than the ageing process in itself.

Fortuijn et al. (2006), to cite another example, have recently investigated the relevance of national context on the relationship between age groups and activity patterns in older adults of six different European countries. Participation in three activity types was identified – 1) family-oriented, home based activities (i.e. media, home maintenance and housekeeping, social activities at home and hobbies at home); 2) individualistic activities outside the home (i.e. paid work, sports, cultural activities and entertainment, and miscellaneous activities; and 3) participation in the local community (i.e. volunteering and activities in civic organizations). The authors verified that family-oriented, home-based activities enclosed the highest participation levels in

all age groups with more than 80% in each activity. The participation in individualistic activities, on the other hand, showed a different pattern depending on the age group, remaining approximately equal between the ages 50 and 70 and decreasing markedly after the age of 70 years. Community-centred activities, contrary to home based ones, had low participation levels in all age groups, being, nevertheless, slightly higher in the older age group than in the younger age group.

These findings seem to support a contraction (i.e. from performing individualistic activities outside home to family oriented, home based activities) and convergence (i.e. from high to low diversity in activity patterns) model. Therefore, the model contends that consecutive stages of the life course encompass fewer peripheral activities and daily life is progressively characterized by core activities. Nevertheless, and as pointed out by the authors themselves (Fortuijn et al., 2006; p. 362), the cross-sectional nature of the study makes it “impossible to disentangle the effects of ageing from cohort effects”. Furthermore, differences in income policy, pension schemes, parent–child relations and gender relations might be reflected in differences in activity involvement, such as paid work involvement, volunteering, or participation in family networks and other social activities.

Overall, Fortuijn et al.’s (2006) data points towards continuity rather than disengagement in older adults’ activity involvement patterns across the six European countries. It also provides support for the continuity theory in that remaining active and satisfaction are positively correlated, while inactivity is correlated with lower levels of satisfaction. A similar correlation was found between activity levels and psychological well-being (Warr et al., 2004). Variables such as social network quality, not living alone, self-rated overall health, sense of being in control of one’s life, and depressive symptoms have been also shown to be significantly associated with life satisfaction, mediating the relationship between activity and the latter (Berg et al., 2006; Johannesen et al., 2004).

Altogether, the empirical findings and theories addressed seem to be supported and harmoniously integrated by Baltes and Baltes’ (1990) model of selective optimization with compensation. By using strategies of selection, optimization, and compensation, older adults adapt to biological losses and the diminishing range of

possibilities inherent to older age. Older adults, then, have the adaptive task of selecting and concentrating on domains they consider to be priorities and in which they find a “convergence of environmental demands and individual motivations, skills, and biological capacity” (p. 27). Drawing on Cicero’s stoic optimism, Baltes and Baltes’ (1990; p. 27) theory provides a parsimonious framework to explain how “forming a coalition between the human mind and society to outwit the limits of biological constraints in old age seems an obtainable and challenging goal for cultural evolution”. Nevertheless the range of one’s actions may decrease with ageing, people’s concern can become increasingly wider to encompass the well-being of future generations. This life perspective may lie beneath people’s well-being and sense of accomplishment.

Objectives

Having McAdams and de St. Aubin’s (1992) theory as reference, the present study intends to explore the relationship between generativity and well-being in University Professors.

Specifically, the association between generative concerns - as assessed by a standardized measure - and generative commitments and actions – identified on individuals’ reported activities and life plans - will be examined on a relatively homogenous sample of educational, professional and socio-economical levels. On a subsequent analysis, through correlation and means comparison, the study will examine the relationship between each generative dimension – i.e., generative concern, commitment, and action - and subjective well-being – i.e., life-satisfaction, life goals accomplishment, and mental health indicators.

Finally, background variables and stressful events will be analyzed in the sense of exploring their potential moderator effect on the relationship between generativity and well-being.

Research questions

As mentioned above, generative concern has been shown to be shaped by cultural and socio-demographic variables. For instance, some studies have pointed to gender differences in levels of generative concern, with women tending to score higher than men, although such difference seems to be mediated by age, i.e. gender differences in generative concern disappear in older cohorts (Keyes & Ryff, 1998; Pratts et al., 1999). Other studies have found no effects of gender on generative concern (e.g. McAdams & de St. Aubin, 1992), but only on generative acts, women reporting greater number of generative acts than men (Hart et al., 2001). Generative concern also seems to be influenced by subjective variables, being positively although modestly associated with health perception, relationship status and religious beliefs and activities (e.g., McAdams et al., 1997; Hart et al., 2001; Dillon, Wink, & Fay, 2003; McAdams & Logan, 2004).

Data are still ambiguous regarding generativity's association with background variables. The present study, thus, intends to clarify such relationships in the Portuguese culture, by trying to explore the following question:

How do generative concerns relate to background variables in middle and late adulthood? The background dimensions under scrutiny will be socio-demographic variables: age, gender, living arrangement, relationship status and parental status; and subjective variables: life goals achievement, subjective health perception, religious beliefs, satisfaction with income, and perceived friendship network.

Supporting Erikson's theory and McAdams' subsequent model, several studies have found significant positive correlations between generative concern and satisfaction with life levels (e.g. McAdams et al., 1998; Ackerman et al., 2000). As noted previously, this association seems to be mediated by levels of ego development (McAdams & de St. Aubin, 1995 cited by McAdams et al., 1998). Other studies, nevertheless, have yielded different results showing a negative or no association between both constructs (e.g., McAdams et al., 1993; Grossbaum & Bates, 2002; Morfei et al., 2004), attesting to the need to further study such relationship. Moreover,

having reviewed several studies that showed different levels of subjective well-being depending on the country's developmental level (e.g., Lima & Novo, 2005), it will be important to analyse the relationship between generative concern and subjective well-being levels in the specific context of Portugal, since no known data still exist on this matter. As such, we intend to focus on the micro level of the individual to explore how psychological variables influence or are influenced by generative concern levels, specifically:

How do generative concern levels relate to subjective well-being (i.e. mental health and life satisfaction measured by Mental Health Inventory-5 and Satisfaction With Life Scale respectively) in middle and later life?

Research indicates that those who have higher generative concern levels might have broader and more satisfying social support networks (McAdams et al., 1998; Pratt et al., 1999). Also, a positive association was found between generative concern and social involvements concerning family and friendship networks (Hart et al., 2001). The present research intends to analyse individual's level of generative concern and the importance attributed to family and friendship relationships. In particular:

How do individual differences on generative concern levels relate to people's perceived importance of relationships, both family and friendship?

Although generative concern has been shown to have a meaningful relationship with people's behaviours, and to be positively associated with generative actions, the relationship between generative concern and activities is still a rich area to inspect, particularly untapped variables that may mediate this relationship. Following McAdams et al. (1993) recommendation to approach generativity from different conceptual and measurement perspectives, the present study will focus on people's reported activities - collected through open-ended questions - and generative concern differences. We intend to find more answers to the following questions:

How do people's reported type of activities, both present activities and planned ones, relate to generative concern? And how do the type of activities people report to be doing relate to subjective well-being, life satisfaction, and life goals attainment?

Hypothesis

A series of hypotheses are advanced in this study, exploring the association between background variables and generative concern, as well as the role of generative concern in subjective well-being and reported types of activities. The following hypotheses are raised:

1. Generative concern will be positively correlated with subjective well-being, i.e., life satisfaction, and mental health, and will present significant differences according to the perception of life goals attainment.
2. Generative concern will not be significantly different according to background variables, i.e. age, gender, living arrangement, relationship status, parental status; and life goals achievement, subjective health perception, religious beliefs, satisfaction with income.
3. Generative concern levels will be significantly different according to people's perception of relationships' importance.
4. People who indicate high levels of generative concern will report more generative actions (i.e., activities related to others' well-being) than people who show low levels of generative concern.
5. People who indicate high levels of generative concern will report more generative commitments (i.e., projects related to others' well-being) than people who show low levels of generative concern.

Methodology

To test these hypotheses, the study had a cross-sectional design with descriptive, differential and correlational goals. There was a one-time moment of data collection with a self-report measure that enabled self description and self assessment.

Sample

Inclusion criteria: University Professors aged 55+, Portuguese-speaking, and enrolled in teaching and research activities at the time of the study or in the past – including also Emeritus and retired Professors but who were still enrolled in professional activities.

Respondents were recruited from a local source, the *Instituto Superior Técnico* (IST) from Technical University of Lisbon, and the Faculty of Psychology and Sciences of Education from University of Lisbon. The sampling method used was neither stratified nor random, but by age and profession criteria.

The sample comprised 64 University Professors with a PhD degree. The minimum age was 55 years old and maximum age was 76 years old ($M = 60$; $SD = 4,62$). The various socio-demographic characteristics and subjective variables assessed are summarized in table 1.

As we can see in table 1, the sample was mainly composed of adults in their middle adulthood (56%). Two participants did not mention their year of birth. All participants were Portuguese with the exception of three participants (5%), who nonetheless lived in Portugal for several years. The majority of participants were men, with women representing less than one quarter of the sample. Concerning parental status, most participants had children: 19% ($n = 12$) had one child, 43% ($n = 27$) had two children, and 27% ($n = 17$) had three or four children. Regarding the relationship status, 78% of the participants were married or living with a companion, 3% had never married, and 17% had other relationship status (9 people were divorced, one was widowed and one had other relationship status). In regards to the living arrangement, almost half of the participants lived with their spouses only (44%), 19% lived alone, and 38% had other type of living arrangement, the latter being mainly living with both spouse and children (30%).

Regarding subjective physical health perception, only 3% of participants rated their health poorly, while the vast majority perceived their physical health to be good or excellent. More than half of the participants did not consider religious beliefs to be important in their life. With reference to income, only 16% ($n = 10$) believed their income to be unsatisfactory, whereas all other participants perceived their income as satisfactory or very satisfactory. Education degree, professional activity and income were considerable homogenous factors across the sample,

Table 1. | Background characteristics of the sample

Characteristic	<i>n</i>	%
<i>Age</i>		
55-59	35	54,7
60-65	19	29,7
66-76	8	12,5
Not identified	2	3,1
<i>Gender</i>		
Women	14	21,9
Men	50	78,1
<i>Relationship Status</i>		
Married	51	78
Never married	2	3
Other	11	17
<i>Children</i>		
Yes	57	89,1
No	7	10,9
<i>Living Arrangement</i>		
Alone	12	18,8
With Spouse only	28	43,8
With Spouse and children	18	29,7
Other	6	7,8
<i>Physical health perception</i>		
Poor	2	3,1
Fairly good	15	23,4
Good or Very good	47	73,4
<i>Religious beliefs</i>		
Not important	35	54,7
Important	19	29,7
Very Important	10	15,6
<i>Satisfaction with Income</i>		
Unsatisfactory	10	15,6
Satisfactory	43	67,2
Very satisfactory	11	17,2

Note. $N = 64$

the latter being the most variable one depending on the field of study.

In sum, the typical participant of this study can be described as male, approximately 60 years old, perceiving his physical health to be good or excellent, married and with two or more children, living with their spouse only, with a PhD degree, both teaching and conducting research in the University, satisfied with his income, and considering religious beliefs not very important in his life.

Measures

An anonymous self-report questionnaire was constructed to collect background information, as well as measures of well-being and generativity. The self-report questionnaire comprised four parts: (I) open-ended questions about present activities, occupational preferences and future life projects, retirement plans, and tutoring activities, and closed-ended questions about life critical events and a standardized measure of generative concerns; (II) multiple choice question about life goals achievement, a standardized measure about mental health, and life satisfaction; (III) multiple choice questions about family and friendship importance in life, as well as number of perceived friends presently and 10 years ago; and (IV) closed-ended questions about socio-demographic characteristics (i.e., year of birth, gender, relationship status, living arrangement, children, nationality) and subjective variables (i.e., perceived health quality, importance of religious beliefs and practices, and satisfaction with income).

The first part intended to assess the self-report of generative actions, generative commitments, and generative concerns. The second part was aimed at assessing participants' subjective well-being. The third part regarded social relationships, and the last part intended to collect information on background characteristics. Overall, it was estimated to take approximately 20 minutes to complete the questionnaire.

Part I. Generativity

Generative commitments and generative actions. Through open-ended questions, the present study intended to collect a brief portrayal of participants' generative commitments and generative actions. Thus, present pleasurable activities on the one hand and both future plans and after retirement projects on the other hand were coded for generative actions and generative commitments respectively.

To assess the presence or absence of generative commitments, then, respondents were asked to briefly describe their projects, both their future projects in general and after-retirement projects in particular. The coding system adopted was the one used by McAdams et al. (1998, p. 24). Specifically, we looked for three generative

ideas: a) “involvement with the next generation” (e.g. life plans concerning children, young people, or subordinates); b) “providing care, help, assistance, instruction, guidance, comfort, and so on or attempting to promote or establish a positive outcome in another person’s life”; and c) “making a creative contribution to others or society in general”.

In total, commitments concerning two or more generative ideas were categorized as generative and attributed a score of 3, and commitments concerning one of these ideas were given a score of 2, whereas commitments with none of the three ideas or commitments impossible to determine their implication on others were given a score of 1 for generativity. In the end, after coding participants’ answers, future projects and after retirement plans’ scores were compared and a final measure of generative commitment was obtained by selecting the highest score of both answers.

Besides commitments, the presence of generative actions were searched for by asking participants to enumerate present activities from which they took pleasure, as well as activities in which they were enrolled in although they wished otherwise. A similar coding criteria used for commitments was adopted for pleasurable actions. As such, regarding the activities that respondents identified as taking most pleasure from, the answers that concerned involvement with younger generations, provision of care to others and/or making a positive contribution to others or society in general were given a score of 3 for generativity, and activities concerning others’ well-being indirectly received a score of 2, whereas activities of self-preoccupation or impossible to determine in terms of their impact on others’ well-being were given a score of 1 for generativity. The activities which participants wished not to be doing were analysed as a control measure for generative actions, to corroborate or challenge the pleasant activities’ categorization. Specifically, if participants reported not to be happy with activities that are generative, that answer would receive a score of 1. As such, while in generative commitment we are interested in analysing the range and diversity of people’s projects and plans, in people’s actions we want to look for the impact people’s actions have on others, in the sense of benefiting them in a direct or indirect way.

People's centeredness. Participants were asked to identify the most significant personal life event they could think of. Their answers were interpreted as an indicator of centeredness on the person himself or herself versus centred on others, coded 1 in the first case and 2 in the latter case. Examples of answers centred on the self include the person's birth or achieving a certain academic degree. Birth of a child or marriage are some examples of answers centred on others.

Generativity concern. The Loyola Generativity Scale (LGS; McAdams & de St. Aubin, 1992) is an extensively validated 20-item self-report questionnaire. It assesses the tendency to be consciously preoccupied with the well-being of the next generation. Respondents rate each item on a scale from 0 "never applies to me" to 3 "it applies to me very often or nearly always". The items tap into the main content domains of generativity. Examples of typical items include: "I try to pass along the knowledge I have gained through my experiences", and "people come to me for advice". Six of the 20 items are reverse scored (items 2, 5, 9, 13, 14, and 15). The authors have reported high internal consistency ($\alpha = .83$ for an adult sample). A Portuguese version similar to the one used in the present study, also showed good internal consistency ($\alpha = .79$; Alves et al., 2007).

Given that all respondents were professors, item 3 was adapted to assess their satisfaction with teaching: "Being professor is a work a enjoy doing" instead of the original one "I think I would like the work of a teacher". As in previous studies, LGS showed high internal consistency in the present research ($\alpha = .80$).

Loyola Generativity Scale scores have been shown to be positively correlated with measures of generative acts, strivings for generativity in daily life, and themes of generativity in autobiographical recollections (McAdams & de St. Aubin, 1992; McAdams et al., 1993; McAdams et al., 1997).

Tutoring activities Participants were asked if they had the role of tutors, that is providing individualized support to a small group of students. In case they answered positively, they were asked to rate the level of satisfaction with the tutoring activities. If they did not have the role of tutors, participants were asked if they wished to have that role in the future and what activities would they consider adequate to perform as a tutor. A final dichotomous measure was achieved, with participants either "being

satisfied/very satisfied with their tutoring role or willing to have that role in the future” and participants who were “unsatisfied or not willing to be a Tutor”.

Part II. Subjective Well-Being

Mental Health. The Mental Health Inventory – 5 item version (MHI-5; Ware, Snow & Kosinski, 1993) is a measure of psychological distress and well-being adapted from the original MHI 38-item version (Veit & Ware, 1983). The five items represent four mental health dimensions, i.e. anxiety, depression, loss of emotional-behavioural control, and psychological well-being. Previous studies have demonstrated MHI-5 to be a valid, reliable measure with high internal consistency and high correlation with the original MHI (Lara et al., 2002). In the MHI-5 Portuguese version, results show high reliability with a Cronbach’s *alpha* of .80 (Ribeiro, 2001) and of .88 with Portuguese older adults sample (Silva & Novo, 2002; Novo 2004). This version with six response categories was used in the present study. Adopting a procedure similar to the one used by Friedman et al. (2005), after coding, and adding, MHI-5 has a sum score ranging from 0 (worst) to 30 (best mental health).

Life satisfaction. The Satisfaction With Life Scale (SWLS; Diener et al., 1985) is a measure of global life satisfaction. Specifically, it assesses the cognitive aspect of life satisfaction and it comprises 5 items rated on a 7-point Likert scale ranging from 1 “strongly disagree” to 7 “strongly agree”. Examples of the items that comprise SWLS are: “In most ways, my life is close to my ideal” and “the conditions of my life are excellent”. The authors have found high internal consistency for SWLS ($\alpha = .83$) and good test-retest reliability ($r = .82$) over a two-month period.

Life Goals Achievement (LGA). An item was created to measure participants’ perception of having accomplished or being on the way to accomplishing their life goals in general. The item was rated on a 4-point Likert scale, 1 - “not that much”, 2 - “to some degree”, 3 - “to a great extent”, and 4 - “totally”. A dichotomous variable (LGA-2) was subsequently created, aggregating scores 1 and 2 into a single category coded as 1, “partially achieved”, and scores 3 and 4 into category 2, “greatly achieved”.

Procedure

A list was obtained with all Professors from *Instituto Superior Técnico* (IST), with approximately 700 Professors, and from that list all professors 55 and more years of age were selected ($n = 236$; 34% of IST Professors). All Professors in the selected group were searched for in their office without previous notice. From the 236, 100 Professors were in their office at the time the researcher went there to invite them to voluntarily participate in the study (42% of the Professors 55+ years old). The study was succinctly explained through the following speech script:

“Hi, my name is Rita. I’m a student currently doing research about life management for my thesis of the EuMaG, specifically how people distribute their time and activities and how that may impact on well-being. I would like to invite you to participate in the study through the completion of a questionnaire that takes approximately 15 to 20 minutes to complete. The answers to the questionnaire are anonymous. In case you need any further explanation, please don’t hesitate to ask me. If you’re interested, I would like to thank you for your cooperation and hand you this questionnaire. After completing it, I would appreciate if you could mail it back to me through internal mail using the envelope in attachment. You also have an addressed postcard where you only have to write your e-mail and send it separately in case you would like to receive a summary of the study.”

After briefly explaining the nature and aim of the research, all questions regarding the study were answered. Six Professors did not accept this request to participate, presenting the lack of time to do it or personal reasons as justification. All other Professors accepted to participate in the study and, in this case, the questionnaire was handed out personally to be completed afterwards. From the 100 questionnaires handed out, 56 were mailed back, obtaining 56% of response rate.

University professors 55+ years old from the Faculty of Psychology and Education Sciences from University of Lisbon were also identified and asked to participate through e-mail. Thirty two Professors were identified and an e-mail was sent in which a similar explanation of the study was provided and, in this case, the questionnaire was left afterwards in Professors’ lockers to be filled out. From the 32 questionnaires handed out, 8 were mailed back, obtaining 25% of response rate.

All Professors were asked to mail the completed questionnaire through the institution's internal mail. For this, an already addressed envelope was provided, assuring the anonymous nature of all data collected.

Data analysis

For qualitative data analyses, all answers were transcribed *ipsis verbis* and translated to English in order to be coded by the author and both supervisors.

Coding was carried out primarily by the author. Prior to coding data, agreement on coding requirements was achieved between the author and both thesis' advisors. There was 100% agreement regarding generative actions' coding, and 96% of agreement on generative commitments. After discussion, all three coders agreed on the final coding.

Regarding quantitative data, the investigator scored the questionnaires and created a database using SPSS so that data were amenable to quantitative statistical analyses. Qualitative analyses were conducted on the written answers to open-ended questions, through content analyses and using a coding system previously defined. Analyses of descriptive statistic and inferential analyses were conducted on a number of background characteristics, as well as on generativity and subjective well-being's measures.

Results

Reliability and descriptive statistics

Generativity measures

The study's main measure of generativity was the self-report Loyola Generativity Scale (LGS), providing a measure of generative concern levels in middle age and older age adults. For the present sample, LGS scores ranged between 19 and 52 (in a theoretical range of 0 to 60), with $M = 36$, $SD = 7.14$.

Comparing LGS results to other studies, our mean was significantly lower than the one found by McAdams, et al. (1993) for midlife American adults ages 37-42 years, $M = 42$, $SD = 6.95$ ($n = 53$), $p = .000$, but it was not significantly different from the mean score found for older American adults with 67-72 years old, $M = 38$, $SD = 9.59$ ($n = 48$), $p = .21$. The present mean was also similar to the one found in Ackerman et al.'s (2000) study with a Canadian sample of adults aged 40 to 45, $M = 37$, $SD = 8.76$ ($n = 98$). In addition, we found no significant differences between LGS mean in this study and in Alves et al.'s (2007) previous study with Portuguese young and midlife adults, $M = 35$, $SD = 7.48$ ($n = 260$), $p = .34$.

Using Kolmogorov-Smirnov test we could verify that LGS had a normal distribution ($z = .85$, $p = .46$). As table 2 shows, LGS scores were subsequently categorized into three groups, specifically participants who had results below the sample's mean score ("low generative concern" group; LGS score < 32), participants who had average LGS scores ("medium generative concern" group; $33 \leq \text{LGS} \leq 40$), and participants who scored above the mean value ("high generative concern" group; LGS > 40).

The other two generativity measures, generative commitments and generative pleasurable actions, along with the self centeredness indicator (i.e., the most significant life event), were all derived from content analysis of open-ended written answers by using the coding system described above. Specifically, generative commitments were transformed into three categories: "generative commitment not identified" group for answers where no generative commitment ideas were identified,

“low generative commitment” for answers where one generative idea was identified, and “high generative commitment” for answers where two or more generative ideas were present.

As table 2 illustrates, in approximately half of the answers it was not possible to identify generative commitments. This means that the answers given by participants regarding plans for the future or after retirement projects did not contain a clear reference to generative themes. Concerning participants who mentioned generative commitments, 30% presented one generative project or had one generative plan, whereas 19% had two or more generative commitments for the future or after retirement projects.

A different coding system was used for generative actions. We asked for pleasurable activities and classified them in terms of their impact on others’ well-being. Particularly, “high generative action” group included participants who identified pleasurable activities that influenced other’s well-being directly, whereas “low generative action” group included participants who identified pleasurable activities that influenced other’s well-being indirectly. The group “generative action not identified” included people who drew the most pleasure from activities apparently not associated with others’ well-being (*see table 2*).

Twenty percent of participants did not identify an activity from which they took pleasure and that simultaneously influenced others positively. The majority of participants, nevertheless, mentioned one or more activities that could influence others’ well-being indirectly (e.g., research or consulting), and 16% of participants referred to one or more activities that could have a direct impact on others’ well-being, such as teaching or taking care of grand children.

Table 2. | Frequencies and percentages of Generativity measures

Generativity measures	<i>n</i>	%
<i>Generative concern*</i>		
Low	19	30
Medium	25	40
High	19	30
<i>Generative commitment</i>		
Not identified	33	52
Low	19	30
High	12	19
<i>Generative action</i>		
Not identified	13	20
Low	41	64
High	10	16

Note. *N* = 64; **n* = 63.

Having a Tutor role can be considered a generative act when it is not an imposed task, since it concerns guiding and supporting students. In this regard, nearly 60% of participants answered they were unwilling to be a Tutor or unsatisfied with that role. On the contrary, 40% of participants revealed they were satisfied or very satisfied to be tutors or, in case they were not having that role, they wished to have it in the future.

Respondents' most significant life event was used as a measure of people's centeredness. Most respondents made reference to an event related to others as the most significant one in their lives (63%; *n* = 40), particularly the birth of a child or grandchild or getting married. The 25th of April (political revolution that ended the dictatorship in Portugal) was also mentioned by a few respondents as the most significant event in their lives (data was collected during February and March so the proximity of the event anniversary was ruled out as a possible influence on these answers). Other respondents chose events centred on the self as the most significant, specially the fact of having been born or achieving an academic or professional degree (31%; *n* = 20).

Measures of Subjective Well-Being

There were three indirect measures of subjective well-being in the present study, *Mental Health Inventory - short version* (MHI-5), *Satisfaction with Life Scale* (SWLS), and *Life Goals Achievement* (LGA; one item assessed on a 4-point Likert scale).

Regarding LGA, most participants considered themselves to have achieved or be on their way to achieve life goals to some degree, 44% ($n = 28$) or to a great extent, 45% ($n = 28$). Only 5% ($n = 3$) of participants considered they did not achieve their life goals significantly neither were they on the way to achieving them and, on the opposite extreme, 6% ($n = 4$) considered to have achieved their life goals “totally”. As such, for the present analyses, LGA was categorized into two groups: “lesser life goal attained” group for participants who considered to be far from attaining their life goals or having attained their life goals only partially, specifically respondents who answered “not significantly” or “to some degree” (48%; $n = 31$); and “greater life goal attained” group for participants who considered to have attained or being close to attain their life goals, that is participants who answered “to a great extent” or “totally” (52%; $n = 33$).

As it is shown in table 3, both MHI-5 and SWLS showed high internal consistency ($\alpha = .87$ and $.84$ respectively).

Table 3. Means, Standard Deviations, and Cronbach’s Alpha for MHI-5 and SWLS

Subjective Well-being measure	<i>N</i>	Items	Theoretical amplitude	Min. and max. value	<i>M</i>	<i>SD</i>	α
MHI-5	64	5	5-30	11 - 30	21.38	4.23	.87
SWLS	63	5	5-35	9 - 34	24.43	5.31	.84

Note. MHI-5 – Mental Health Inventory – short version; SWLS – Satisfaction with Life Scale

Using Kolmogorov-Smirnov test we could verify that both MHI-5 and SWLS had normal distributions, $z = .97, p = .30$ and $z = .91, p = .38$ respectively.

As expected from previous studies, MHI-5 mean scores were lower than the ones found for midlife Norwegian adults (Strand et al., 2003). Transforming MHI-5

results into a 0 to 100 range to facilitate comparisons, the *Mean (SE)* values for the present sample and the one found in Strand et al.'s (2003) study were, respectively, 71.25 (1.7) and 80.1 (.35). Is this a significant difference?

Correlation and mean comparison statistics

1. Generative concern will be positively correlated with subjective well-being, i.e., life satisfaction, and mental health, and will present significant differences according to the perception of life goals attainment.

To analyse generative concern differences by life goals achievement, LGS means were compared between the group “lesser life goal attained” and the group “greater life goal attained”. Generative concern measured by LGS had a *Mean (SD)* value of 34 (7.41) for group who had “lesser life goal attained” and 38 (6.48) for group who had “greater life goal attained”. Using t-test, we could verify that generative concern mean is significantly higher in the latter group than in the former group [$t(61) = -2.09, p = .041$].

The same pattern of results was found when comparing generative commitment and life goals achievement. Specifically, people who identify generative commitments also tend to consider they have achieved their life goals to greater extent, and people who identify no generative commitments also tend to perceive they have achieved their life goals to a lesser degree, $\chi^2(1, N = 64) = 6.30, p = .012$. Pleasurable generative action was the only generative dimension not significantly related to life goals achievement, $\chi^2(2, N = 64) = 1.84, p = .40$.

The other two subjective well-being (SWB) measures, mental health and satisfaction with life, show a significant positive correlation between the two, and they both correlate with generative concern, although they show weak associations. As table 4 shows, generative concern results are positively correlated with satisfaction with life, $r = .33, p = .01$, as well as with mental health, $r = .27, p = .04$.

Table 4. Correlations of Generative concern and SWB Measures

Measures	LGS	MHI-5	SWLS
LGS	-		
MHI-5	.27*	-	
SWLS	.33**	.70**	-

Note. Pearson correlation values; $n = 63$ for LGS and MHI-5 and $n = 62$ for SWLS; ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed); LGS – Loyola Generativity Scale; MHI-5 - Mental Health Inventory short version; SWLS - Satisfaction with Life Scale.

When we analyse these correlations separately by age, we verify that age has a moderator effect on the relationship between generative concern and satisfaction with life, as well as on the relationship between generative concern and mental health. Specifically, to analyse the moderation effect of age, the sample was divided into two groups, a group of participants who were 55 to 59 years old (“midlife adults” group; 56%, $n = 35$) and another group who were 60 and more years old (“older adults” group; 44%, $n = 27$).

Participants 60 and more years of age had no significant correlation between LGS and SWLS and between LGS and MHI-5, $r = .12$, $p = .54$ and $r = -.01$, $p = .97$ respectively. Participants who were 55 to 59 years of age, on the contrary, showed a significant correlation between generative concern and satisfaction with life ($r = .44$, $p = .01$; $n = 34$), and a significant correlation between generative concern and mental health ($r = .44$, $p = .01$; $n = 34$).

2. Generative concern will not be significantly different according to background variables.

Using one-way ANOVA, we observed that generative concern had no significant differences by any socio-demographic variable under study, i.e., sex, age, marital status, parental status, and living pattern. We can attribute the lack of significant correlations, in part, to small sample size.

There was, however, a slight increase on LGS scores’ average with age as table 5 illustrates. Similar to generative concern, subjective well-being measures are not

significantly correlated to age, but there seems to be a slight tendency for participants in older groups to score higher on these measures than in the younger group.

Table 5. Generative concern and SWB scores Mean and SD by age

Age group	LGS		SWLS		MHI-5	
	M	SD	M	SD	M	SD
55-59 (n = 34)	35.5	6.75	23.5	5.65	20.7	4.15
60-65 (n = 20)	37.0	7.36	25.1	4.99	22.15	1.04
>66 (n = 7)	37.3	6.47	27.7	3.40	22.57	1.09
Total (N = 62)	36.2	7.14	24.5	5.35	21.38	.53

Note: Using one-way ANOVA there were no significant mean differences by age: in LGS, $F(2, 60) = .41, p = .67$; SWLS, $F(2, 61) = 2.10, p = .14$; and MHI-5, $F(2, 61) = 1.01, p = .37$.

Regarding background variables association with generativity, no significant correlations were found between generative concern and satisfaction with income, importance of religious beliefs, and significant negative stressful events.

3. Generative concern levels will be significantly different according to people’s perception of relationships’ importance.

Regarding family and friends’ importance in people’s lives, most participants considered family as well as friends to be of great or extreme importance, 93% and 83% respectively. The lack of variability on participants’ answers compromised any analysis of comparison of generative concern means and these measures.

We could, nonetheless, observe that generative concern had a significant correlation with perceived friendship network, $F(2, 47) = 4,96, p < .01$.

4. People who indicate high levels of generative concern will report more generative actions (i.e., activities related to others’ well-being) than people who show low levels of generative concern.

Using the one-way ANOVA, we compared generative concern means between participants who reported no generative actions in the pleasurable activities,

participants who reported one or more activities related to others' well-being indirectly, and participants who reported one or more activities related to others' well-being directly. No significant mean differences were found in LGS means for the three groups, $F(2, 60) = 1.77, p = .18$.

Although not significantly different, as we can see in table 6, there is an increase in generative concern levels from the group with no generative action identified to the group with direct action in others' well-being.

Table 6. Generative concern Mean and SD by Generative action

Generative action*	LGS		
	N	M	SD
No action identified	13	33.1	7.55
Indirect action	40	35.9	7.01
Direct action	10	38.7	6.55
Total	65	35.8	7.14

It was interesting to see that generative pleasurable activities, similar to other studies that used a more encompassing measure of generative action, was significantly correlated with sex, $\chi^2(2, N = 64) = 10.6, p = .005$. As such, women tended to identify more generative activities than men. Sex difference disappears when one considers generative actions with direct and indirect influence on others well-being altogether, $\chi^2(1; N = 64) = 1.92, p = .17$. Sex differences, then, appear to exist only in generative pleasurable action with direct impact on others. Sex differences were not significant on generative concern levels, nor on generative commitments.

Finally, generative pleasurable action was also the only generative measure significantly associated with satisfaction with Tutor role or desire to be a Tutor, $\chi^2(2, N = 64) = 6.21, p = .045$.

6. People who indicate high levels of generative concern will report more generative commitments than people who show low levels of generative concern.

Contrary to generative action, there were significant differences on generative concern levels between participants who had generative commitments and participants who

had no generative commitments. Using the t-test, we found that generative concern levels are higher in participants who identify one or more generative projects ($M = 38.3$, $SD = 7.23$) than those who identify plans or projects that are not necessarily generative ($M = 33.9$, $SD = 7.18$), $t(61) = -2.24$, $p = .029$. This result supports the present hypothesis and replicates previous studies.

Exploring possible relations between generative commitment and background variables, it was interesting to notice that generative commitment was significantly related to religious beliefs' importance only, $\chi^2(4, N = 64) = 17.25$, $p = .002$. Similar to generative concern, there were no correlations between generative commitment and other socio-demographic variables such as gender or age.

Discussion

The present study's main goal was to explore individual differences in generativity levels and the relationship between generativity dimensions and subjective well-being in university professors in their midlife and older age. Overall, we can say that even in a considerably homogenous sample, there is great variability in generative concern levels, as well as in future and after retirement projects and in generative pleasurable actions. These data attest to the relative independence of the construct of generativity in regards to professional role, supporting previous findings (e.g., MacDermid et al., 1998). The lack of correlation with other background variables such as gender, age, marital and parental status, seems to defend the relative independence of this psychosocial construct from contextual factors. Nevertheless, data must be analysed with caution, since we had great homogeneity regarding external factors such as socio-economic and educational level.

The most surprising finding was the different relationship between generative concern and subjective well-being measures on participants 55 to 59 years old, and participants 60 and more years old, although the correlations were significant overall. Replicating previous findings, we found a positive association between generative concern and satisfaction with life and between generative concern and mental health,

supporting Erikson's human development model and McAdams and de St. Aubin's subsequent generativity model. Nonetheless, this association was significant in the younger participants' group. Particularly, when a person 55-59 years old had high levels of generative concern, he or she also tended to have high levels of satisfaction with life and high levels of mental health. Although correlation studies do not allow us to draw any causality conclusions, we can hypothesize that there is a bi-directional influence. That is, a person who tends to be more concerned with other's well-being also tends to feel happier with his or her life and vice-versa.

Conversely, generative concern did not correlate significantly with satisfaction with life nor with mental health levels on participants 60 and more years of age. In this context, the apparent independence of generative concern from satisfaction with life and mental health functioning seems to support the proposition that generativity assumes a particularly preponderant role in midlife, although this result may be attributed to cohort effects also.

Although both dimensions are not significantly associated in participants 60 and more years old, it is interesting to observe that, contrary to previous studies (e.g. McAdams et al., 1993), older adults show a tendency to have higher levels of generative concern and subjective well-being than adults in midlife. Given that previous studies seem to show higher levels of generative concern in middle age when compared to older age adults, we can raise the hypothesis that maintaining professional activities, even after retirement, may contribute to high generative levels. Conversely, we can also argue that people with high generative levels tend to remain in the work force longer. A longitudinal study would be necessary to study the direction of such relationship. Present results can also be due to several factors such as age, cohort effects, socio-political context or a combination of the three. Regarding socio-political context, it is important to consider the present results taking into consideration the unclear social policies that people face presently in regards to retirement policies and their recent redefinition.

In effect, from the sparse contact established with these professors while explaining the study's aim and while inviting them to participate, a generalized dissatisfaction seemed to be shared, not so much regarding the quantity of workload

that many piles of papers suggested, but particularly due to an uncertainty climate that is presently installed in Portugal in regards to what the future social and retirement policies will be.

On the contrary, some participants seem to “exclude” retirement from their future plans, appearing quite indifferent to social policies and revealing a will to work until they can no longer do it or until work law obliges them to stop (for University Professors, 70 is the age limit until which one can work).

Another interesting finding was the fact that generative commitment, besides being related to generative concern as it was expected, was also related to life goals achievement. Present results suggest that when a person considers to have greatly attained his or her life goals, he or she tend to have more generative projects for their lives and generative after retirement plans in particular, than when a person considers to have attained his or her life goals to a lesser extent. We could infer that a person’s feeling that his or her life goals were mainly achieved is a prerequisite to act towards others’ well-being. Equally, we can also argue, in light of Erikson’s theory, that for a person to be social and psychologically adapted and to reach a sense of life accomplishment, he or she has to have developed a concern for the generations that will follow.

Finally, while generative concern and commitment seem to be relatively equal among men and women in the present sample, the identification of pleasurable actions that are also generative is significantly higher in women than in men. This is the only generative measure where gender differences were present. Again, present data seem to support previous studies that show different correlations between gender and diverse generative dimensions (e.g. Hart et al., 2001).

**Study
 Limitations
 and future
 directions**

Notwithstanding all procedures adopted to secure a standardized data collection, some limitations should be mentioned. Namely, the fact that we had a small (and perhaps select) sample may have contributed greatly to the results obtained. Furthermore, data were collected with a self-report measure only, will all the limitations that self-report and ipsative measures

entail. Future studies would benefit greatly from the use of objective and behavioural measures, as well as data from sources external to the questionnaire.

It would be interesting, thus, to cross self-report measures of generativity with other type of measures, as previously suggested by McAdams et al. (1993).

Also, both generative commitment and generative pleasurable actions were assessed through open-ended questions where most participants tended to present very succinct information, which may not capture all of people's commitments and actions. Nevertheless, this type of question normally allow us to identify the ideas people attribute the most importance to, since open-ended questions tend to trigger answers where people retrieve from their memories of their most salient thoughts. That is, open-ended questions appear to pull for recall and production and closed-ended questions appear to pull for recognition.

Still regarding the measures used, it is important to rethink the family and friendship perceived importance question. The goal was to determine whether generative levels could vary depending on the level of importance that a person attributed to family and friends. Nevertheless, people's perception of family and friends importance appeared as highly constant, which indicates that the questions were not useful to capture people's differences in this realm. In the future, it would also be important to ask for people's most significant life event after other questions that require less reflection. Namely, we could probably have obtained more extensive answers by asking open-ended questions that directed peoples' attention to an encompassing reflection about life first. Although this remains an empirical question, the fact that the most significant life event was the first question may have triggered succinct answers.

Another important aspect regarding assessment concerns generative actions' conceptualization. Namely, research was chosen by most participants as the activity that gave them the most satisfaction. In the future, it would be interesting to determine what motivation lies beneath the pleasure of conducting research and/or if a type of or area of research is more or less generative.

Moreover, the fact that participants were asked to participate in the study while they were in their office may have influenced participants' answers in terms of biasing the conveyed information towards professional projects mainly, and not so much personal ones.

Additionally, it would be important to study a more heterogeneous sample to see whether the moderator effect of age in the relationship between generative concern and subjective well-being and between the former and mental health remains significant in people with different background characteristics. For instance, it would be interesting to study the relationship between generativity and subjective well-being in people who have retired and are not active and/or who belong to different cohorts. Ultimately, it would be important to conduct a longitudinal research in order to determine whether the commitment to act towards others' benefit and well-being contributes to a sense of life goals' achievement or whether it is the perception of having attained ones life goals that enables a person to commit to activities that aim at others' well-being.

“The world was not left to us by our parents. It was lent to us by our children.”

African proverb (Villacorta, 1994 as cited by Kotre, 2004, p.46)

**Scientific
 and
 European
 Societal
 relevance**

As noted by McAdams and Logan (2004), the applicability of generative initiatives goes far beyond individual lives and parents' concerns for their children, covering also issues such as education, politics, culture, and society.

By trying to deepen our understanding about people's concern for others' well-being and next generations and its relation to subjective well-being, this study intended to embrace one of the seven key priority areas of exceptional interest and added value for Europe, established by the Sixth European Community Framework Programme. Namely, the study intended to fit within the scope of these priorities by contributing to the awareness of “new forms of relationships between (...) citizens” (European Community, 2002).

As acknowledged by Kotre (2004, p. 45), 50 years ago “when Erikson coined it, generativity was a new term, but the idea behind it was very old, perhaps one of the oldest in existence”. The relevance of this dimension of socio-psychological development, nonetheless, has never been

as contemporaneous and vast as in a society that is increasingly compartmentalized in terms of age, and where segregation of older people is promoted through rigid retirement policies and encouraged by tempting offers from retirement communities. Moreover, the amplified mobility that detaches family generations from one another – in part due to life opportunities being available in different locations for people in different life stages – impels society to stimulate creative solutions for the new challenges that intergenerational relationships will face.

The dominant narrative present in some political discourses, characterized by an overgeneralized use of the term *burden* when referring to population ageing and older people, seems to ignore the potentialities of intergenerational solutions. In effect, this narrative points at foretelling people and society's expectations, becoming self-confirmatory prophecies that cloud a realistic view which recognises Europe's demographic trends and simultaneously perceives older people as indispensable assets for society's growth and evolution. This view irrefutably needs to replace the former. As the Commission of the European Communities (2005:6) stated, "our societies will have to invent new ways of liberating the potential of young people and older citizens".

Particularly, the European Community must find and solidly implement a sustainable structure that fully addresses concerns such as the scarcity and re-distribution of resources, through an intergenerational path that can diminish intragenerational inequalities. In this context, generativity at the individual's level and intergenerational relationships within society's scope are essential for deconstructing age stereotypes born as a result of the sparse knowledge about other generations. Mostly, they are both fundamental elements to catalyse a sense of social solidarity transversal to human beings of all ages.

Beginning with individuals own generative characteristics, which can and should be shaped by families' values, and ensuring an environment that promotes such characteristics, through sustainable health, educational, and social policies, the new challenges which have emerged from demographic changes should be addressed by EU Member States through articulate and cooperative ways, serving as role models for European citizens.

We can argue that while individuals' generative characteristics positively influence self and others' well-being, society's intergenerational approaches also have an influence on individual lives in a bi-directional process. Through what we may call an *intergenerational strengthening spiral*, a reciprocal influence between individuals' generativity characteristics and society's intergenerational approaches is suggested, so that the former simultaneously enables and fosters society's concern for intergenerational issues. This concern, in turn, can

reinforce generative characteristics in individuals by shaping their expectations and beliefs as regards to *social justice*, as well as to a fair and sustainable world.

In sum, bridging different generations through social policies and intergenerational programs is essential to develop a stronger social fabric within the European tissue. Such enterprise, nonetheless, should not lose sight of the importance that each individual can have by guiding his or her attitudes by a generative structure.

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Attachments

Life Management Study

My name is Rita Melo and I am presently developing my master's thesis for the European Masters Programme of Gerontology (EuMaG).

The information gathered with the questionnaire *Life Management Study* will be used to help us understand better how men and women of different ages manage their lives in terms of interests and activities. To achieve that aim, we hope to have your cooperation to answer the following questions that will be about you, your background, your beliefs, and your activities.

The questionnaire should take no longer than 15-20 minutes of your time. The collected information is confidential, the questionnaire being anonymous.

After completed, please send the questionnaire in the envelop I send in attachment through internal mail.

If you wish more information, please don't hesitate to contact me:

Rita Melo

T: 96 587 22 96 Ext. 3813

e-mail: rita.melo@ist.utl.pt

A postcard is available at the end of the questionnaire in case you are interested in receiving a summary of the results of the Study "On generativity: a contribute to the natural history of intergenerational relationships". You should send the postcard separately so it will not be associated with any of the responses you have provided. It will be kept in a confidential file and used only when the summaries of the study are being mailed.

I. Some questions about the things you do in your life in general...

1. We would like to ask you to describe the most significant thing that has happened in your life.

2. Please give us a brief statement about your main plans for the future.

3. Regarding the activities you have presently, which are the ones that give the most pleasure to do?

4. Which things would you like to do that you are not presently doing?

5. On the other hand, which things you do that you would rather not to?

6. In the past twelve months have you (please check all that apply):

a. changed or lost a job? Yes No

b. changed residence? Yes No

c. had a person move into or leave you home? Yes No

d. had a death in the family? Yes No

e. had a death of a close friend? Yes No

f. had a serious illness or injury? Yes No

g. had a family member or a friend seriously ill or injured? Yes No

h. had a significant change in income? Yes No

i. other significant event Yes No (please describe) _____

7. At what age do you see yourself retiring? Please specify the main reasons for your answer.

8. What do you think on doing after retirement? (please, specify)

9. Are you presently a Tutor?

Yes

If so, how much satisfaction do you feel with tutoring tasks?

A lot of satisfaction

Satisfaction

Little satisfaction

No

If not, would you like to be a Tutor in the future?

Yes

No

9.1. If so, what tasks do you do or picture yourself doing as a Tutor?

9.2. In the past, while a Student, did you have a Tutor's support at any moment?

Yes (please, specify) _____

No

10. For each of the following statements, please indicate how often the statement applies to you, by marking either a "0," "1," "2," or "3" in the space in front.

Mark "0" if the statement never applies to you.

Mark "1" if the statement only occasionally or seldom applies to you.

Mark "2" if the statement applies to you fairly often.

Mark "3" if the statement applies to you very often or nearly always.

___ 1. I try to pass along the knowledge I have gained through my experiences.

___ 2. I do not feel that other people need me.

___ 3. I think I would like the work of a teacher.

___ 4. I feel as though I have made a difference to many people.

___ 5. I do not volunteer to work for a charity.

___ 6. I have made and created things that have had an impact on other people.

___ 7. I try to be creative in most things that I do.

___ 8. I think that I will be remembered for a long time after I die.

___ 9. I believe that society cannot be responsible for providing food and shelter for all homeless people.

___ 10. Others would say that I have made unique contributions to society.

___ 11. If I were unable to have children of my own, I would like to adopt children.

___ 12. I have important skills that I try to teach others.

___ 13. I feel that I have done nothing that will survive after I die.

___ 14. In general, my actions do not have a positive effect on others.

___ 15. I feel as though I have done nothing of worth to contribute to others.

___ 16. I have made many commitments to many different kinds of people, groups, and activities in my life.

___ 17. Other people say that I am a very productive person.

___ 18. I have a responsibility to improve the neighbourhood in which I live.

___ 19. People come to me for advice.

___ 20. I feel as though my contributions will exist after I die.

II. Some questions about the way you have been feeling...

1. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the *past 4 weeks*...

1.1. During this last month, have you been a very nervous person?

- Always
- Almost always
- Most of the time
- Some of the time
- Almost never
- Never

1.2. During this last month, have you felt so down in the dumps that nothing could cheer you up?

- Always
- Almost always
- Most of the time
- Some of the time
- Almost never
- Never

1.3. During this last month, have you felt calm and peaceful?

- Always
- Almost always
- Most of the time
- Some of the time
- Almost never
- Never

1.4. During this last month, have you felt downhearted and blue?

- Always
- Almost always
- Most of the time
- Some of the time
- Almost never
- Never

1.5. During this last month, have you been a happy person?

- Always
- Almost always
- Most of the time
- Some of the time
- Almost never
- Never

2. To what extent do you feel you have accomplished or are on your way to accomplishing your career goals?

- completely
- mostly
- somewhat
- a little
- not at all

3. Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Slightly disagree
- 4 - Neither agree nor disagree
- 5 - Slightly agree
- 6 - Agree
- 7 - Strongly agree

- A. ____ In most ways my life is close to my ideal.
- B. ____ The conditions of my life are excellent.
- C. ____ I am satisfied with my life.
- D. ____ So far I have gotten the important things I want in life.
- E. ____ If I could live my life over, I would change almost nothing.

III. Some questions about how you have been feeling on your relationships....

1. When you think about your current relationships:

1.1. How important is friendship in your life? (Please indicate the statement that best describes your feelings)

- friendship has no importance at all in my life
- friendship has little importance in my life
- friendship has moderate importance in my life
- friendship has great importance in my life
- friendship has extreme importance in my life

1.2. How important is family in your life? (Please indicate the statement that best describes your feelings)

- family has no importance at all in my life
- family has little importance in my life
- family has moderate importance in my life
- family has great importance in my life
- family has extreme importance in my life

2. How many friends you consider having? _____

2.1. How many friends you consider to have had 10 years ago? _____

IV. To be able to contextualize your previous answers, we would like to ask you now some questions about yourself...

1. Please indicate your sex: female male

2. What is your year of birth? _____

3. What best describes your current relationship status?

- single/ never married married
- widowed separated/divorced
- partnered other (Please describe: _____)

4. What is the number of persons in your house: ____

What is your living arrangement? (please check all that apply)

- living on my own living with other relatives
- living with my spouse/partner living with other non-relatives
- living with my children other _____ (please describe)

5. Do you have any children? yes no

5.1. If yes, how many children do you have? ____

6. How would you describe your current physical health? (Please check one)

- excellent
- good
- fair
- poor

7. What is your nationality? _____

8. How important are religious beliefs in your daily life? Please check one of the following:

very important

important

not important

8.1. Do you participate in any public religious activities? yes no

9. Do you consider your monthly household income to be:

very unsatisfactory

unsatisfactory

somewhat satisfactory

satisfactory

very satisfactory

We very much appreciate your assistance in this study.

Once again, thank you.