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**The role of proactive coping strategies and
perceived health status for Social well-being
and life-project in old age.**

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Alle fronde dei salici, per voto

Anche le nostre cetre erano appese

Oscillavano lievi, al triste vento

(S. Quasimodo; Alle fronde dei salici, 1947)

Abstract

The latter part of the 20th century was a period characterized by a fundamental demographic transition of western society. In these countries, we have observed a progressive lengthening of life expectancy, that nowadays reaches 80 years for men and 86 years for women. This substantial and structural demographic change proposes several challenges to contemporary society and fosters the emergence of new issues and challenges. Among these, none is more crucial than the comprehension of the mechanisms and the processes that lead people to positive aging. Rowe and Kahn's model of successful aging highlights the interplay between social engagement with life, health, and functioning for a positive aging experience. Other systemic models of successful aging (Kahana et al., 1996; 2003; Stevernik et al., 2006) emphasize the role of internal and external resources for attaining positive aging. Among these, the proactive coping strategies are indicated as important active strategies for avoiding the depletion of resources, counterbalancing the declines and maintaining social and civic involvement.

The study has analyzed the role of proactive coping strategies for two facets of positive aging, the experience of a high social well-being and the presence of personal projects in fundamental life domains. As expected, the proactive coping strategies, referred to as the active management of the environment, the accumulation of resources and the actualization of human potentials are confirmed as positive predictors of high level of social well-being and of many personal projects focused on family, culture, leisure time, civic and social participation. Perceived health status give a significant contribution only to the possession of many personal projects. Gender and level of school education give also a significant contribution to these two dimensions of positive aging, highlighting how positive aging is rooted not only in the possession of personal

resources, but also in historical models of education and in positive longitudinal chains related to early development.

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Part I Theoretical Overview

Chapter 1.

Theoretical Introduction

1.1 Successful aging: a challenge for contemporary society

The issue of successful aging has known a recent popularity among gerontologists in the last decades, due to substantial change of the “age pyramid” occurring in developmental countries (Eurostat, 2013). In these countries, we have observed a progressive lengthening of life expectancy, that nowadays reaches 80 years for men and 86 years for women. This substantial and structural demographic change proposes several challenges to contemporary society and fosters the emergence of new issues and challenges.

Among these, none is more crucial of the comprehension of the mechanisms and the processes that lead people to positive aging. In gerontologists studies, the start of the debate on positive aging is situated at the beginning of the sixties in the last century. Several theorists, as Cummings and Henry (1961) highlighted the processes of reciprocal disengagement between individual and society, that represent a symbolic preparation to death. On the contrary, Havighurst and Albrecht (1953) argued in favor of an involvement in social life, attributing to the characteristics of modern society the main causes of withdrawal of the elderly, due to phenomena such as retirement. More recent theories, related to Positive Psychology, emphasize, as criterion of positive aging, the ability to continue to grow and fully develop themselves in favor of society (Ryff, 1989; Zambianchi, 2014).

At a general level, considering the theoretical perspectives on successful aging, it should be noted that the majority of them (even in conceptual differences) requires the presence of high level of functioning and the possession of physical, personal and social

resources. The following section will examine briefly the most important theories on successful aging.

1.2 The systemic model of successful aging

This model is characterized for the adoption of a systemic approach to aging. Rowe e Khan (1987; 1997) make a preliminary distinction between usual aging (marked by a modest decline in several functions, eg. memory) and successful aging (marked by low risk of diseases and high global functioning). This perspective was elaborated by the authors in order to argue against the emphasis, posed by traditional gerontologist, on the distinction between pathological and not pathological aging processes. Rowe and Khan (1987, 1997) define successful aging as a condition that is characterized by the presence of three dimensions:

- 1) Low probability of diseases and disability
- 2) High level of physical and cognitive capacity
- 3) Active involvement in social life.

All these dimensions are intercorrelated and, to some extent, possess a hierarchical structure. Successful aging is more than the absence of diseases, and more that the maintenance of functional cognitive and physical capacity. Both component are relevant for attaining a successful aging, but it is their convergence into an active social life that represents the core of it.

The active involvement in social life is defined by two sub-components, namely interpersonal relationships and productive activity. Theorists following this systemic approach have examined the role exerted by risk and protective factors on active and productive life in old age. One of the most important study , the Mc Arthur Study on Successful Aging (Glass et al., 1995) highlighted in the adoption of a healthy lifestyle one of the most powerful protective factor against diseases and disability. Among

personality factors, perceived self-efficacy (Bandura, 1997) constitutes a robust predictor of the maintenance of optimal cognitive capacity, while a good physical performance is predicted by demographic factors such as socioeconomic level and by psychosocial factors such as social support and engagement in recreational activities.

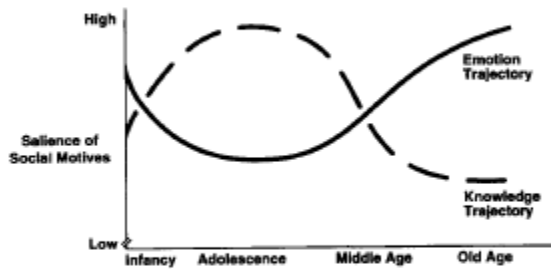
1.3 The relevance of “time count” for goals and social relationships. The Socioemotional Selectivity Theory.

Carstensen et al., (1999; Isaacowitz, Charles, Carstensen, 2000) elaborated a Theory on life-cycle of human motivation, where the perception of time play a central role on the prioritization of social goals and social preferences. This theory sustains that:

- 1) Social interaction is crucial for human surviving, both on phylogenetic and ontogenetic level. The evolution of our specie has predisposed humans to search and maintain of social ties (Bowlby, 1988).
- 2) Humans are fundamentally agentic and are involved in behaviors driven by mental anticipation of relevant future goals.
- 3) Because humans simultaneously hold multiple (sometimes opposing) goals, the selection of goals is a precursor of action.

Socio-emotional Selectivity Theory maintains that the view of future time as expansive or limited influences the appraisal process that precedes goal selection. (see figure 1)

Figure 1
Idealized Model of Socioemotional Selectivity Theory's Conception of the Salience of Two Classes of Social Motives Across the Life Span



Note. From "The Social Context of Emotion," by L. L. Carstensen, J. Gross, & H. Fung, 1997, *Annual Review of Geriatrics and Gerontology*, 17, p. 331. Copyright 1997 by Springer Publishing Company, Inc. Reprinted with permission.

Figure 1. The trajectories of emotion and knowledge goals in relation to time count

Cognitive appraisal of time assists people in balancing long and short-term goals; young people give the priority to the knowledge of skills, competencies, and acquaintances that favor personal growth and better comprehension of the social world. On the contrary, when time is perceived and estimated as limited (as generally occurs in old age), other goals are selected, related to feeling states and aimed to experience positive emotional states. These goals are reached through a carefully selection of social ties, and giving the priority to the narrow circle of families and close friends, that confirm the worldview of the old individual and guarantee high emotional satisfaction. Empirical evidence suggests that across the wide range from 20 to 90 years a linear trend is found such that older adults foresee a relatively more limited future than do younger adults, even after controlling for health (Lang and Carstensen, 2002). The proactive construction of social world is driven by processes of proactively avoiding negative emotions, and regulating social contacts is among the most effective antecedent regulation strategies (Carstensen, Gross and Fung, 1997). Researchers have found that social relationships are vital for affective well-being among older adults, and

that when social network don't offer opportunity for positive emotional sharing, older people appear to be distressed (Isaacowitz, Charles and Carstensen, 2000).

1.4 The Social Production Function Theory applied to old age

The issue of the relevance of social relationships for attaining a positive aging is the core of the model proposed by Stevernik et al., (2005; 2006). This model, although it starts from an evolutionary perspective such as to Carstensen e coll. (1999), it comes, however, to a different conclusion. This theory assumes that people produce their own well-being by trying to optimize achievement of universal needs within the constrain they are facing (Ormel et al., 1999). Three important concepts of Social Production Function Theory (SPF) are:

- 1) The linkage of needs' realization with well-being
- 2) The distinction between universal needs and instrumental goals
- 3) The substitution among these instrumental goals, activities and endowments, according to cost-benefit considerations.

The linkage of well-being with the achievements of universal needs has its origins in psychological need theory (Maslow, 1968) and contemporary subjective well-being theory (Bradburn, 1969; Ormel, Schoufeli, 1991). Two are the universal goals identify by SPF Theory: physical well-being and social well-being, that together concur in determining the level of psychological or emotional well-being.

The instrumental goals relevant for physical well-being are internal comfort, external comfort and stimulation (activities that produce arousal, as mental and sensory stimulation, and physical efforts as in sport activities). The second universal need, social well-being, has been identified by sociologists and psychologists as one of the most

important need (Keyes, 2005). For social well-being, SPF identify three first-order instrumental goals: status, behavioral confirmation, and affection. Status refers to the feeling of being treated with respect, as independent and autonomous individual, that is known for achievement, skills and assets. Behavioral confirmation refers to the confirmation of our own behaviors by others, in particular the feeling of having done the right thing” (Ormel et al., 1977, p. 1053) in the eyes of relevant others. Affection includes love, friendships and emotional support, and is provided in caring relationships (intimate, family and friendships relations). The SPF hypothesizes that human needs are the same across life-span, while their salience, the opportunities and resources to satisfy them profoundly change with age. In old age status become the most difficult need to reach, affection the easiest, confirmation is situated at a medium level. Empirical research has demonstrated that older people seem to lose their resources for social need satisfaction over time in a specific order: first their status resources, than behavioral confirmation resources, and last their resources for affection (Stevernik, 2001). Are substitution and compensation effective strategies for reducing the negative impact of these losses? Stevernik et al., (2006) investigated whether and to what extent levels of social needs satisfaction are related to age and are associated with indicators of subjective well-being (life satisfaction; positive and negative affect). They confirm that in people aged 65 and over the level of status satisfaction is lower than the level of behavioral confirmation which, in turn, is lower than the level of satisfaction for affection. An interesting result is that social needs are directly related to indicators of subjective well-being: positive affection is maintained when the need for status and behavioral confirmation are fulfilled; life satisfaction is instead maintained when older people can fulfill needs for affection and behavioral confirmation. Stevernik e coll., on the basis of these results, sustain that opportunities and resources should be identified in

order to satisfy needs of status and behavioral confirmation, because their fulfillment contributes to overall well-being of the older.

1.5 The “Gain-Losses” Model.

Baltes (1987) defines life-span developmental psychology as the study of constancy and change through life stage, from birth to death. One of the principles that guides human development is represented by the dialectic of “gain and losses”. According to this perspective, developmental processes are not only incremental and accumulative in nature, but they consist of the co-occurrence of gains and losses. The contemporary presence of growth (gains) and decline (losses) is clear until birth; during developmental stages of life, gains are more extensive than losses, while in old age this process gradually shifts in favor of losses (particularly in the “fourth age”, Baltes and Smith, 2003). Nevertheless, also in old age several gains are possible. Baltes highlights, as example, the development of human intelligence, highlighting how two distinct form of intelligence, namely fluid intelligence and crystallized intelligence, present a peak in different stages of life. While fluid intelligence, associated to the speedy of elaboration of information and problem solving has its peak in youth, crystallized intelligence, that represents the result of slow sedimentation and in deep elaboration of expertise and knowledge through life-span, continue to grow in old age, giving rise to the phenomenon of wisdom, or “competence about pragmatics of life” (Baltes, Mayer, 2000; Labouvie –Vief, Diehl, 2000) see figure n 2. Another principle that guides individual development is the human plasticity, as the result of the complex interrelations among individual characteristics, life-course, and historical –cultural conditions. The principle of plasticity recalls two key-concepts of Baltes’ theory, namely, the resources and the reserve. The resources (physical resources, cognitive resources, social resources) are crucial for attaining successful aging and they tend to

become more interwoven during old age than in young and adult age. With the term *reserve*, Baltes refers to latent abilities, competencies that are not yet utilized by the elderly, but that could be activated for maintaining a good functioning (eg. competencies acquired through self-learning, or through courses or workshops). Baltes and Baltes (1990) proposed the Model of Selection, Optimization and Compensation (SOC) as set of strategies to life-management. The SOC model describes fundamental processes associated with selection, optimization and compensation that underlie successful adaptation to the shifting balance of growth and decline across the life span. From the viewpoint of the SOC model, people select life domains that are important to them, optimize the resources and aids that facilitate success in these domains and compensate for loss in order to adapt to biological, psychological and socio-economic changes that occur during life. Since resources are limited, people cannot pursue every goal in every domain; choosing between goals and committing to them is crucial for development. Elective selection is the concept that refers to the choice and preferences of the individual; it operates in absence of losses and requests resources (Freund, Baltes, 2000). Optimization is the process which is directed at acquiring the resources, developing new skills, and pursuing personal goals. When resources decline or are lost, as occur in aging, compensation strategies become necessary to avoid a reduction in self regulation and in self-esteem and to identify new goals (Freund, Baltes, 2002).

**Multidimensionality
Multidirectionality**

Different Forms of Intelligence

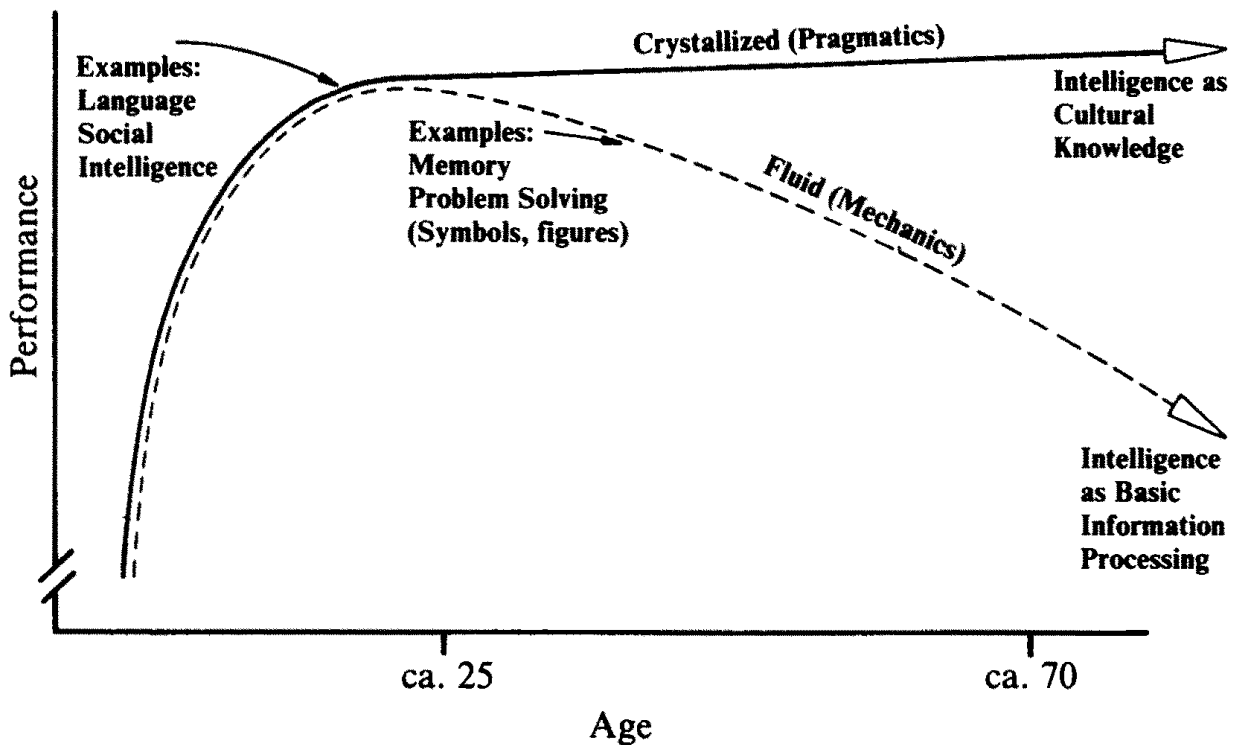


Figure n 2. The life-span trajectories of fluid and crystallized intelligence, Baltes, (1987)

1.6 The Complex Model of successful aging based on Proactive Adaptation

This model, elaborated by Kahana and Kahana (1996; 2005) takes as a basis the fact that very few are nowadays the theoretical approaches to positive aging that adopt a longitudinal and processual perspective within a multidimensional and multifactorial frame. Kahana et al., (2003; 2005) adopt, instead, a theoretical frame that refers to an agentic conception of individual across life-span and that is based on two fundamental concepts, namely the preventive proactivity and the corrective proactivity (see figure 3). The former refers to strategies and resources aimed to prevent the onset of undesirable outcome (eg. frailty, loneliness), while the corrective proactivity refers to strategies and

resources aimed to reduce the impact of critical situations or stressors yet occurred (eg. chronic diseases, loss of a loved one). The proactive behaviors aimed to prevent the onset of negative outcomes can be seen as an important new feature in the literature on successful aging (Ouweand et al., 2007; 2008; Zambianchi, 2013). The model based on proactive adaptation, adopting a longitudinal perspective, evidenced the role played by socio-cultural factors and cumulative stress from adverse situations in early stage of life, recent events and chronic disease that, in absence of protective factors and resources, set in motion a longitudinal chain of negative events leading to low quality of life in old age. Internal resources / dispositions for successful aging are constituted by the presence of high self-esteem, altruism, future orientation, hopefulness, and satisfaction in life. They positively interact with proactive adaptations, that are divided in two class: traditional preventive (helping others, health promotion) and traditional corrective (social support, role substitution) and emergent adaptation (technologies use, self-improvement). Other important external resources are the presence of financial resources, and a context where older people can find easy access to technologies and access to health care. Kahana and Kahana (1996) view elders as active agents who engage in both preventive and corrective pursuits to maximize their quality of life. These proactive efforts are facilitated by possessing both internal and external resources (see table 1). Several researches were conducted having this Proactivity Model of Successful Aging as theoretical base. Kahana, Moore and Kahana (2012) in a recent longitudinal study examined how internal (active coping and religious coping) and external resources (financial resources, social support and number of living children) contribute to the maintenance of psychological well-being and social activities among 1000 older adults who experience normative stressors of aging. Outcome variables of this study were the level of depressive symptoms and social activities, defined globally as quality of life (QOL). Proactive adaptations (physical exercise, planning ahead for

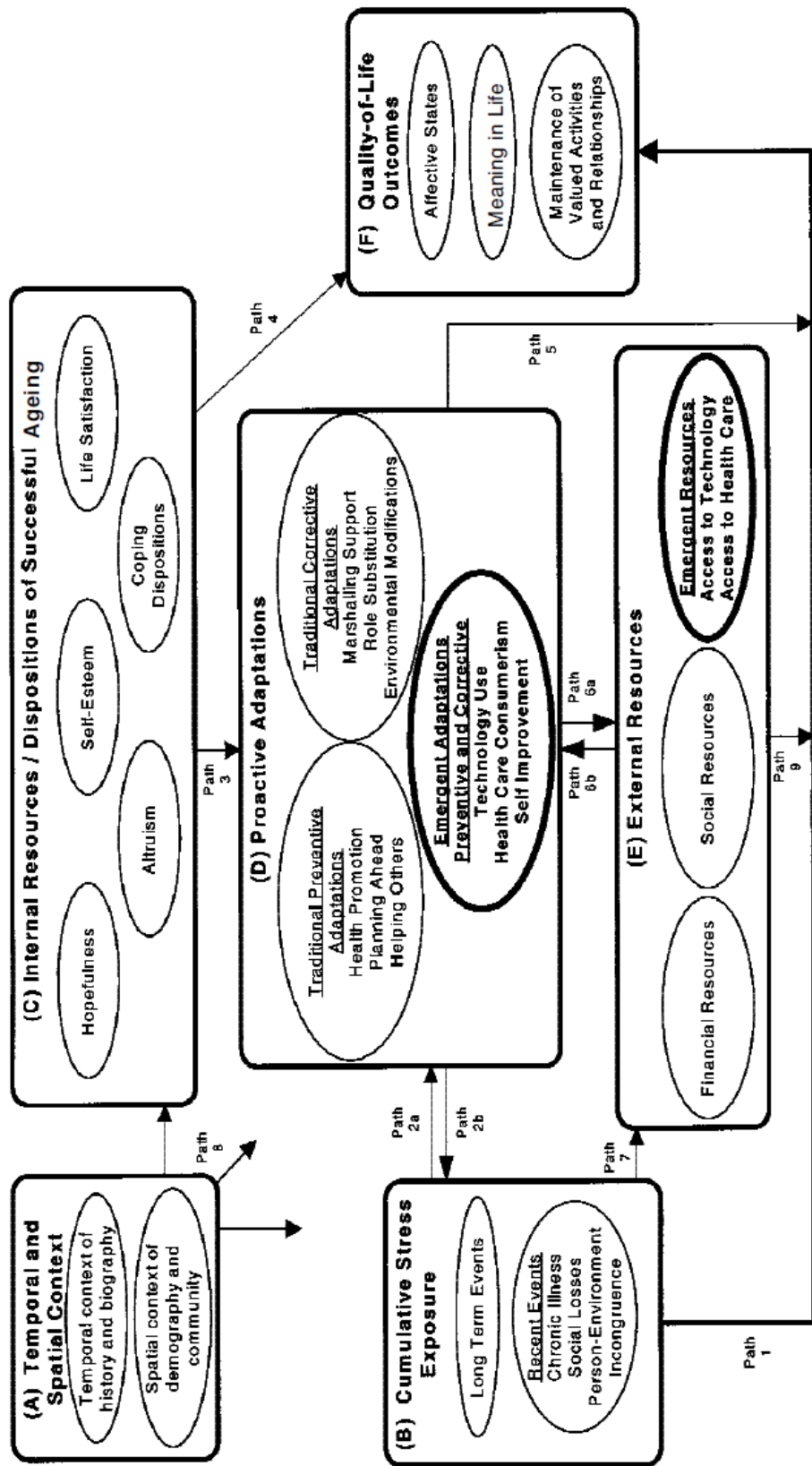
disability, planning for the future, marshalling support) were examined as mediating factors between internal and external resources and QOL. Results indicate that in old age internal and external resources strongly influence the willingness and ability to invoke proactive adaptations in the face of stressors. The existing internal and external resources have selective and positive influence on proactive adaptations. Social support was influenced by both internal resources, active coping and religious coping; planning for the future was only influenced by active coping and having more living children. Reported frequency of physical exercise was higher among those who were married, those who had more children and those who engaged in active coping. Referring to outcome, those who reported using active coping strategies exhibited fewer depressive symptoms, but the mechanism works through proactive adaptation to stressors. Religious coping has a direct relationship to depressive symptoms: those who reported using religious coping show fewer depressive symptoms. Planning for the future proved to be the second important element for maintaining good QOL in the face of stressors, as confirmed also by the recent study of Fry and Debats (2012), in which the future time perspective is related to a major longevity. These findings underscore the value of future-oriented planning behaviors in self-regulation, problem solving and promoting successful aging (Aspinwall, Taylor, 1997). Significant benefit is derived from making positive, forward-looking discretionary plans for the future. This common thread implies that future-oriented time perspective may serve as a dispositional resource in late life (Kahana et al., 2005).

The results of these studies are also consistent with Elder's (1994) perspective of life-course theory that recognizes the power of planful choices made by people when they interact with changing and challenging environment throughout the life course, and especially at the so called "turning point", special life periods when individuals have to

deal with challenges or to actively modify the environment in order to realize talents and potentials. In the theoretical perspective posed by Elder jr (1998), the aging processes are rooted in the earlier stages of life of individuals and are embedded in the historical and social life-context were they grew up.

Figure 3 . the Model of emerging proactive options for successful aging

Model of Emerging Proactive Options for Successful Ageing



Adapted from the original model as it appeared in: Kahana, E., & Kahana, B. (1996). Conceptual and empirical advances in understanding aging well through proactive adaptation. In V. Bengton (Ed.), *Adulthood and Aging: Research on Continuities and Discontinuities* (pp. 18-40). New York, Springer Publishing Company, and Kahana, E., & Kahana, B. (2002). Contextualizing successful aging: New directions in age-old search. In R. Settersten, Jr. (Ed.), *Invitation to the Life Course: A New Look at Old Age* (pp. 225-255). Amityville, NY: Baywood Publishing Company.

Table 1

Traditional and Emergent Proactive Adaptations		
TRADITIONAL ADAPTATIONS		EMERGENT ADAPTATIONS
Preventive Adaptations	Corrective Adaptations	Preventive or Corrective Adaptations
1. Health Promotion a. exercise b. harmful substance avoidance c. safety awareness d. preventive health care use	4. Marshalling Support (need disclosure and help seeking) a. from family b. from friends c. from neighbors d. from paid helpers e. from formal service providers	7. Technology Use a. communication enhancement b. information retrieval c. convenience enhancement d. health monitoring or maintenance
2. Helping Others providing instrumental and emotional support: a. to family members b. to friends c. to neighbors d. to others (volunteering)	5. Role Substitution/ Role Engagement a. work roles b. organizational roles c. civic roles d. family or friendship roles	8. Health Care Consumerism a. develop long-term relationships with health care providers b. proactive information use c. effective communication with health care providers d. advocate for self or significant other(s)
3. Planning Ahead a. financial b. environmental c. lifestyle enhancement d. health care e. end of life	6. Environmental and Activity Modification a. safety enhancement b. comfort enhancement c. autonomy enhancement	9. Self-improvement a. educational efforts b. enhancing appearance c. seeking spiritual or personal growth

table 1. Traditional and emergent proactive adaptations (Kahana , Kahana and Kercher, 2003)

Chapter two

Social well-being as relevant outcome for positive aging

Positive Psychology highlights the existence of several conceptions of well-being (Seligman, Csikszentmihalyi, 2000). Ryan and Deci(2008), Deci and Ryan (2008) referring to the robust area of research on quality of life (Bradburn, 1969; Campbell, 1976; Michalos, 1985) identify a conception of well-being as “hedonia” (or subjective well-being) in which three components: satisfaction with life, positive emotion and negative emotion concur together to the level of perceived hedonic well-being of individuals. This line of inquiry has a long tradition in social gerontology.

Another important definition of well-being is conceptualized by Ryff e coll. (1989; Ryff and Keyes, 1995; Ryff and Singer, 2008) as eudaimonic well-being (also defined as psychological well-being) that is rooted into the ancient Greek philosophical tradition of Aristotle’s concept of eudaimonia, and Humanistic psychological perspective of Maslow (1968). Eudaimonic well-being is referred to the actualization of human potentials into society. Ryff (1989) defines it as consisting of six dimensions: Self-Acceptance, Autonomy, Environmental Mastery, Purpose in Life, Personal Growth, and Positive Relations with Others. The study on psychological well-being across life span highlighted that in the advancing of age the dimensions of purpose in life and personal growth tend to decline, while positive relations with others and self-acceptance are substantially stable (Ryff, Keyes, MIDUS (Midlife in the United States study), 2002). Moreover, Ryff e Singer have shown that higher levels of psychological well-being is associated with better neuroendocrine regulation, lower cardiovascular risk, and better immune functioning (Ryff et al., 2004), a result of particular interest for old age.

Keyes (1998), moving a serious criticism to this individualistic approaches to well-being, has introduced the concept of Social well-being, that is considered as the quality of the relationships between individual and society. The theoretical approach of Keyes defined social well-being as a five-dimension construct: Social Integration, Social Acceptance, Social Coherence, Social Contribution and Social Actualization.

Social integration: it correspond to the evaluation of the quality of one's relationships to society and community. Healthy individuals feel that they are a part of society. Integration is therefore the extent to which people feel they have something in common with others (eg. neighborhood), as well as the degree to which they feel that they belong to their communities and society.

Social acceptance: it is the construal of society through the character and qualities of other people as a generalized category. Individuals who illustrate social acceptance trust others, think that others are capable of kindness, and believe that people can be industrious. Social acceptance is the social analogue to personal acceptance: people who feel good about their personalities and accept both the good and the bad aspects of their lives encounter good mental health (Ryff, 1989).

Social contribution: it is the evaluation of one's social value. It includes the belief that one is a vital member of society, with something of value to give to the world. Social contribution resembles the concepts of efficacy (Bandura, 1997) and responsibility. Social contribution reflects whether, and to what degree, people feel that whatever they do in the world is valued by society and contributes to the commonweal.

Social actualization: is the evaluation of the potential and the trajectory of society and correspond to the belief in the evolution of society and the sense that society has potentials which is being realized through its institutions and citizens. Healthier people

are hopeful about the condition and future of society, and they can recognize society's potential. Parallel to self-determination, social actualization is the sense that society controls its destiny and is similar to the theme of potentials and their development as self-realization (Maslow, 1968), eudaimonic happiness (Waterman, 1993), and personal growth (Ryff, 1989).

Social coherence: it corresponds to the perception of the quality, organization, and operation of the social world, and it includes a concern for knowing about the world. Socially healthy people feel that they can understand what is happening around them. Social coherence is analogous to meaningfulness (Seeman, 1992) and involves appraisal that society is discernible and predictable.

In the first study conducted by Keyes (1998), Social well-being highlighted a strong sensitivity to age and educational level: with more education, each dimension of social well-being increases. Dimensions of social well-being appear to be distributed by age. For dimensions increase with age: Social coherence, however, decreases with age. Keyes sustains that it is due to American society and its celebration of youthful culture. But, other studies, rooted in other countries, evidenced the same tendencies (Zambianchi, Ricci Bitti, 2012). Referring to MIDUS Study, Keyes and Shapiro (2004) have considered five age cohorts: 25-34; 35-44; 45-54; 55-64, 65-74, examined for marital status, sex and occupational status. As pointed out in the previous study, age was linearly associated with Social acceptance and Social integration in a positive direction, but with Social coherence in a negative direction. The findings for Social coherence and Social contribution may suggest a pattern of cumulative disadvantage. Keyes and Brim showed also substantial differences for females and males in two sub-dimensions, namely Social acceptance (with female with higher score than males) and Social coherence (with males having higher score than female). The construct of Social

Well-being has been analyzed in several studies for its associations with other social component of well-being. The dimensions of Social well-being have also exhibited strong linkages to various indicators of civic engagement and prosocial behaviors (Albanesi, Cicognani and Zani 2007; Cicognani et al., 2008) about adolescents and young people. Levels of social well-being, but notably social integration and social contribution, were highest among adults who had worked with others in their neighborhood to solve problems, compared with adults who had never engaged in such activities (Keyes, 1998). The level of overall Social well-being increased as level of concern for others' welfare and well-being increased. Keyes assumed that Social well-being is clearly linked with civic health and social capital (Putnam, 2000).

The level of Social well-being among the elderly and its relationships with perceived social support was evaluated in a study conducted on a small sample of old people by Zambianchi and Ricci Bitti (2012). Gender and educational level have been considered as covariate. Results confirm that in old age Social integration shows the highest score, while Social coherence the lowest. In Italian context, old women show a lower level of Social contribution than men. The level of perceived social support (evaluated for partner, family and friends) predicts the level of Social well-being, together with gender and educational level: old people who have attained a high educational level, are males and can rely on social support highlight the highest level of social well-being.

Another study has analyzed the relevance of time perspective (Zimbardo, Boyd, 1999) and its relevance for social well-being on old age (Zambianchi, Ricci Bitti, 2012) highlighting the relevance of low scores on negative past, low scores on fatalistic present high scores on future (planning for the future, having projects) for experiencing a high social well-being. Future time perspective is positively correlated with social integration, and social actualization, while fatalistic present is negatively correlated with

Social acceptance, Social contribution, Social coherence and overall Social well-being. Negative past is negatively correlated with Social contribution, Social actualization, Social coherence and overall social well-being. As in previous studies (see Keyes, Brim, 2002), Social contribution is higher among males than females, while Social integration show a sensitivity to family structure: those elderly who live alone show a higher level of Social integration than those who live with the spouse or with children. Another new interesting construct that comprises Social well-being is defined as “*flourishing*”, or “complete positive mental health status” (Keyes, 2002; 2005; 2007), a condition of contemporary high level of life satisfaction and positive emotional experience, eudaimonic well-being and social well-being. For Keyes, a complete state of positive functioning that integrate together the individual and social components of well-being is protective against pathology as cardiovascular diseases, osteoarthritis, diabetes.

Considering the relevance of social well-being in all stages of life, and the salience of social needs for successful aging (Stevnik et al., 2006), very few studies have investigated the relevance of individual strategies and resources for attaining it in the last phases of life. Proactive coping strategies, both in the conceptualization of Aspinwall and Taylor (1997) as strategies aimed to prevent the onset of threatening conditions, disability and social adversity and in the conceptualization of Schwarzer and Taubert (2002) as resources accumulation for personal growth may be hypothesized as resources for attaining and maintaining a high level of social well-being in old age.

Chapter 3.

Personal projects of life in old age and their relevance for positive aging

The issue of human planning is rooted in the studies of well-being (Diener et al., 1999) that adopting a telic or an autotelic approach. Telic theories represent a need approach in which end states are considered to reflect relatively few common needs and a goal approach in which end states are considered to reflect relatively numerous personally close goals (Maslow, 1968). Autotelic approach locate positive human experience in the nature of activity itself than in any end state toward which such activity might be directed, being based on intrinsic motivation (Ryan, Deci, 2001). According to Csikszentmihalyi, (1990), the intrinsically motivated experience (that is at the basis of optimal experience or flow) are characterized by activities that include the provision of clear roles, clear goals, clear feedback and, most important, the occurrence of a match between the person's skills and the demands of the activity. Little (1983) introduced the concept of "personal projects", defined as "planned actions intended to maintain or attain a state of affairs foreseen by the individualit reflects cognitive, affective, and behavioral aspects of human conduct"(pp.276). Less global than purpose in life, the personal projects are closely related to continuity and preference in the person's life: necessary components of the personal projects are an interpersonal need frequently expressed in ongoing behavior or lifestyle and a goal object, which together represent a unit of person-environmental transaction (Lawton et al., 2002, p.540). the personal projects are been investigated in adolescence, but very few studies have investigated this dimension in older adults.

Rapkin and Fisher (1992) have conducted a study on 179 elders aimed to identify dimensions of individuals differences in the content of older adults' personal goals and

have examined demographics, loss-related and contextual influences on these goals. They took into consideration the theoretical perspective of Little (1983) on personal projects and of Holahan (1988) on the relevance of social participation and proactive goals for elders' life satisfaction. They distinguished between "achievement goals", "maintenance goals", "disengagement goals" and "compensation goals", that were evaluated through a modified form of the Life Goal Inventory (Bhuler et al., 1968). Through a firstly principal component analysis and a subsequent second-order factor analysis they were able to identify 10 broader life-goal domains: Active Improvement (that reflects an overarching goal to actively improve involvement in many life domains; Maintenance of social values and relationships; Disengagement; Energetic Lifestyle (to be energetic and healthy, to get around independently, to actively improve one's living situation); Safety and Security (avoiding health hazards and financial problems); Stability (stability in the neighborhood); Increased Reliance on Services (a passive view of one's ability goals and the desire to rely on services for older adults); Easy Life (leisure time and living in comfort); Reduced Activity (reduction of volunteering involvement); Independence in Living. Disengagement was related to lower levels of education, and lower occupational status, while the desire for an energetic life-style was related to being married and healthy. Older women and those who have attained high occupational roles desired more stability and less demanding life-style. The authors signaled the necessity to take into account new variables that could influence life-goals and to evaluate the relevance of life-goals on features of well-being. Holahan (1988); Holahan and Chapman (2002) have conducted longitudinal studies on proactive goals and activity participation in old age. Their samples were drawn from the Terman Study of the Gifted (Terman et al., 1925). In the first study, Holahan (1988) found that proactive goals reflecting an involvement with people and activities (eg. community service, enjoy an hobby, increasing knowledge or skills

through writing, going to concerts, lectures..) and goals reflecting achievement motivation were positively related to psychological well-being. In a second study, Holahan and Chapman (2002) investigated, in a sample of 242 individuals that belonged to the Terman study, the longitudinal predictors of proactive goals and activity participation at age 80. Results showed that purposiveness at age 40 predicted proactive goals at age 80 indirectly through satisfaction with cultural life and service to society measured at age 60. These findings have led the authors to suggest that the trait of purposiveness (the perseverance in the face of obstacles, the presence of purposes in life) is translated into goals and associated activities across the life cycle, from early adulthood to later life.

Lawton et al., (2002) identified the factor structure of personal projects expressed by a sample of 600 elderly in order to develop a typology of personal projects and identify demographic and psychosocial correlates of the personal projects' factors. They also analyzed the associations of personal projects with health and well-being (positive affect, level of depression, valuation of life). The study pointed out that participants productivity in formulating personal projects was limited, averaging only 2.8 projects per person. Six categories of personal projects were identified :

-ADL orientation: it is composed of personal care, meal preparation, eating meals on special occasions;

- active recreation: it includes leisure pursuits such as cultural activities, travel, exercise and games, interaction with friends and attendance at a senior center

-other-directed projects: they have a community-centered, altruistic tone. This category includes helping others, volunteering, and interaction with family (but no with friends)

- intellectual activities: it includes reading, education, some types of hobbies, and are high in cognitive challenge

Home planning: it includes home maintenance, having a own home, moving to a smaller apartment

-spiritual/moral activities: it comprises religious attendance and projects denoting philosophy of life.

Greater age was associated with fewer projects of all types and specifically fewer active recreation, intellectual activities, and home planning, but no with other directed and spiritual-moral activities. Poor health status was associated with fewer other-directed and intellectual projects. Personal projects also contributed independently to all three psychological well-being indicators. Most personal projects were associated with positive mental health (positive affect and positive valuation of life). Negative affect was associated only with fewer other-directed projects. Those results are consistent with the conclusions that personal projects are intrinsic part of the positive mental health system. The authors concluded highlighting the relevance of this area of research on positive aging, pointing out also the paucity of studies devoted to it, and suggesting for future researches, as method, to impose a set of projects dimensions, instead of open questions through which identify broader factors. Another prospective study that take into account the late-life engagement in social and leisure activities (Wang et al., 2002) highlight the protective role of being involved in different social and intellectual activities for the incidence of Dementia diseases. Those elderly who were involved in stimulating activities (social and cognitive) evidenced a decreased risk of Dementia after 6.4 years before dementia diagnosis.

However, to date, there are no studies that examine the relevance of personal projects for other facets of well-being such as social well-being, and which psychological factors and resources might contribute to their actualization. It could be interesting a greater understanding of this promising area of positive functioning in this stage of life, due to its potential relevance for a high quality of life of the older people and for its protective role against negative outcomes.

Chapter 4 .

The relevance of proactive coping strategies in old age

Lazarus (1993), proposing a transactional model of stress, defined coping as the changing cognitive and behavioral efforts to manage psychological stress: in the process-oriented approach, coping is seen as a response to demands in stressful situations. The amount of perceived stress is the result of the interaction between the challenge posed by the event and the resources that individual possess to deal with it.

Whilst in the past coping strategies were regarded mainly as a reactive set of strategies (problem focused, emotion focused, avoidance focused) that were to be used in order to manage stressful events already occurred, more recently coping is being seen as something one can do before stress occurs (Aspinwall and Taylor 1997).

There are two major definitions of proactive coping. The former is elaborated by Aspinwall and Taylor (1997) and refers to proactive coping as a set of strategies aimed to prepare individuals for threatening events or to minimize the severity of these events before they happen. Aspinwall and Taylor (1997) divide proactive coping into five stages. It starts with the building of resources and skills in advance of any specific anticipated stressor (resource accumulation). In a second stage, proactive coping involves the recognition of potential stressors. Recognition refers to the ability to see a potential stressful event coming, and it depends on the ability to screen the environment for danger and to be sensitive to internal cues suggesting that threats may arise. After a potential stressor has been detected, an initial appraisal (the third stage) should be used to assess the characteristic of the event, and make a first definition of the problem. Then one can set in motion cognitive processes as the mental simulation of future scenarios and the use of past experience for judging their plausibility and their dangerousness.

Mental simulation also provides an incipient plan to deal with potential stressors, that correspond to the fourth stage, the preliminary coping efforts. The preliminary coping efforts depend on the initial definition of the stressful or critical event, and the perceived controllability of it. The beliefs that one is capable of enacting required behaviours and that those behaviours will be successful in averting stress may have distinct effects on efforts to neutralize the potential stressor or to reduce its impact (Bandura, 1986).

The latter is elaborated by Schwarzer and Taubert (2002) and defines proactive coping as the individual efforts to build up resources that facilitate personal growth and the actualisation of talents and potentials. This definition conceives future stressors as “challenge” and not as “threat” and resource accumulation as a prerequisite to deal with these challenges. Coping strategies may be conceptualized not only as individual’s efforts to reduce the impact of negative events that have already occurred, but also as individual’s strategies directed toward goals management, utilization of social resources to achieve one’s goals, and strategies directed to identify stressors or threatening events at their early stage. According to Schwarzer (2000) there are four types of coping:

- 1) Reactive coping: it is defined as the effort to deal with a stressful event that has already happened. Coping efforts are, in this situation, directed to compensate for loss or reduce distress symptoms
- 2) Anticipatory coping: it is defined as the effort to deal with imminent threat or critical events that is certain to occur in the future. In anticipatory coping there is a risk that future event may cause harm or resource loss. In this case, the function of coping consists in solving the problem or neutralize its occurrence through increasing efforts, getting help, investing in other resources.
- 3) Preventive coping: it is defined as the effort to build up general resources in order to reduce the severity of critical events that may occur in the distant future. Preventive

coping involves risk management and preparation to various unknown risks in the distant future.

- 4) Proactive coping: it consists of efforts to build up several resources that facilitate the achievement of challenging goals and promote personal growth. Personal resources include personality factors as self- efficacy, social support, competencies and skills. In proactive coping, sustain Schwarzer and Taubert (2002), people have a vision. They see risks, demands and opportunities in the future, appraising them as opportunity instead of risks. They perceive moreover difficult situations as challenges; coping becomes, in this perspective, goal management instead risk management. Individuals are not reactive, but proactive, and they intentionally start constructive paths of action, aimed to modify the environment, identify the resources for their development and personal growth.

Both conceptions of proactive coping strategies, despite their conceptual difference, have in common a “looking-forward perspective” to enhance resources, to realize objectives and to reduce the impact of threatening events. For this reason they both can play a crucial role in the processes involving successful aging, due to their ability to neutralize risks (eg. disability before it happens, or to identify resources for personal growth, being involved in volunteer activity)

Several researchers have acknowledged the central role of preventive behaviours for successful aging, in addition to reacting actively to stressful changes and critical events. As early in the history of gerontology, Paulus (1951, p. 401) suggested that “successful aging must be prepared in advance”, a position sustained also by Elder jr (1998). More recently, Kahana and Kahana (2003) elaborate a complex model of successful aging based on preventive and corrective proactivity, within which they propose the central role of “agency” in the lives of older adults. This comprehensive model of successful aging (see figure 3) specifies how the stressors of chronic illness, long-term and recent

events, and person-environment misfit, in absence of ameliorative buffers, set in motion a chain of events leading to adverse quality of life outcome. This model emphasizes the role of external resources (as economic resources or technological resources) and internal resources (as future time orientation and hope) and the buffering role of proactive behavior in reducing the adverse stress effects. The positive outcomes, positive affective states, meaning in life and maintenance of valued activities and relationships is regarded as the core of successful aging by other contemporary theoretical perspectives, as such Stevernik and Stevernik (2006), that posed the fulfillment of social needs (affective, but also behavioral and status) as a prerequisite for well-being in old age.

On the other side, coping strategies play a critical role in an individual's physical and psychological well-being when faced with challenges, negative events and stress.

Aging is often characterized as a shifting balance between gains and losses (Baltes, 1987), especially in the fourth age, the most frail and subjected at difficult experiences of loss, as the death of loved ones, or serious diseases that can compromise the participation in social relationships (Baltes, Smith, 2003). The ability to conserve or enhance resources through proactive coping strategies can mitigate the impact of these events or declines, and postpone the onset of frailty and other health problems. On the other side, as stated by Aspinwall and Taylor (2000), the ability to mentally anticipate threatening or negative situations (not only in the area of health, but also in the social domain, such as the loss of loved persons or the loss of evaluated social roles) can contribute to coping efforts aimed to strengthen social ties or to adopt healthier lifestyles. An advantage of proactive coping strategies is that stressors are encountered in an early stage, so its impact may be lowered when the stressor fully emerges (Aspinwall, Taylor, 1997). Consequently, the stressor or the critical event will consume

relatively less resources, which means that these resources remain available for other activities. The processes through which individuals anticipate potential stressors and act in advance to prevent them can be seen as proactive behavior, and is particularly helpful in old age, due to its ability to conserve (and enhance) strategic resources (economic, personal, social, cognitive) that older people can utilize to contrast declines in the life domains (Hobfoll, et al., 2003). Disengagement from important goals, therefore, may be postponed by using proactive coping, improving the life quality of older people, and their level of well-being through the maintenance of activity, and projects that contribute to life qualities.

Both definitions of proactive coping strategies (preventive and proactive) capture a common underlie, the “*forward-thinking style*” that individuals utilize in order to enhance, accumulate or conserve resources that help them to realize desires or projects and reduce stress and illness. The processes through which individuals anticipate potential stressors and act in advance to prevent them can be seen as proactive behavior, and is particularly helpful in old age, due to its ability to conserve (and enhance) strategic resources (economic, personal social, cognitive) that older people can utilize to counteract decline in the life domains. Other research have already investigated the relevance of coping strategies for attaining successful aging (Brandstadter, 2006), but very few study (Ouweand, de Ridder and Bensing, 2007; Zambianchi, 2013) investigated the role of these *forward-looking strategies* in old age, despite their potential relevance for contrasting resource depletion. The studies on the relevance of proactive coping strategies on health and overall well-being have confirmed the beneficial role exerted by these strategies in all stages of life.

Gan et al. (2007) highlighted the mediating role of proactive coping in both the definition on student engagement and stress reduction. Uskul and Greenglass (2005)

confirmed the protective and promotional role of proactive coping strategies for psychological well-being.

Greenglass and Finkenbaum, (2009) evaluated the role of proactive coping for positive affect and well-being in three different samples: university students, rehabilitation patients and employed. The results showed that proactive coping was a partial mediator of social support on positive affect and that positive affect was associated with better psychological functioning. Sohl and Moyer (2009) demonstrated that proactive coping is positively related to subjective well-being and negatively with physical symptoms in an undergraduate sample. Zambianchi and Ricci Bitti (2013) demonstrated the positive influence of proactive coping (in the conceptualization of Schwarzer and Taubert, 2002) on social well-being in a sample of emerging adults. Ouweand et al.(2007) using a multimethod approach, examined to what extent current stressors (relationship problems, job loss, legal problems) impede proactive coping in a sample of Dutch middle aged and older adults. In three studies they investigated several aspects of proactive coping. In the first study, results showed that health stressors and major life events had no, or only a marginal significant association with proactive coping competencies. In the second study they demonstrate that neither physical nor mental health stress was significantly associated with proactive coping orientation after controlling for age, gender, education and negative affect. Goal management, goal orientation had a significant, positive effect on these strategies. People who were more oriented towards their goals and toward the management of these goals were also more inclined to engage in proactive coping. Level of education showed also a positive relation with proactive coping orientation. In the third study they examined to what extent people employ proactive coping efforts when they are confronted with potential threats (loss of physical health, loss of social contacts, loss of financial resources). After controlling for gender, education and negative affect, mental health stress had a significant

longitudinal and positive effect on the employment of proactive coping efforts, but life events and physical health stress did not influence proactive coping efforts. An important variable for the employment of proactive effort is the amount of perceived control over the future events (Ouweand, de Ridder and Bensing, 2007). In a study on 124 older adults, they manipulated two characteristics of a potential decline in health: the amount of control people have over preventing the threat (non control versus control) and the amount of time left before the threat would occur (short term versus long term). A shorter period of time left resulted in more attention being paid to threat and more information being sought about how to prevent the health threat. An interaction effect of time and control for individuals with a health related goal emerged: people who were confronted with an uncontrollable threat in the nearby future spent more time on planning than people who had control, whereas the opposite relation was found for people who faced a distant future stressor. More control leads to a higher motivation to execute plans.

To date, there are no studies on the relevance of these proactive coping strategies for other facts of successful aging, such as Social well-being and personal projects.

The role played by proactive coping strategies, both in the conceptualization proposed by Aspinwall and Taylor (1997) and in that proposed by Schwarzer and Taubert (2002) on Social well-being and on the level of personal planning in various areas of life may increase the knowledge of the psychological factors involved in an important outcome such as positive aging and identify a new area of intervention for the promotion of well-being and human motivation.

Chapter 5

Aims and Hypotheses of the study

The present study has six aims:

- 1) To examine the characteristics of the sample for Social Well-being, personal projects, perceived health status and proactive coping strategies. Based on previous literature (Keyes, 1998; Keyes, Brim, 2004; Zambianchi, Ricci Bitti, 2012), it was formulated the hypothesis that social Integration presents the highest scores among the sub-dimensions of Social Well-being, and Social Coherence the lowest one. Since there is scarcity of research on personal projects in this phase of life, no hypothesis was formulated.
- 2) To examine the presence of group differences for the following socio-demographic variables: gender, level of school education, number of people in the households. Age was deleted as demographic variable since the percentage of older people belonging to the Fourth Age (19%) was not sufficient for Multivariate Test Manova and Anova. It was hypothesized, on the basis of previous literature (Zambianchi, Ricci Bitti, 2012, 2013; Keyes, Brim, 2004) that males possess a higher score on overall Social Well-being, and on Social Contribution as sub-dimension of Social Well-being. It was also hypothesized that males possess a better perceived health status than females (Baltes, 2000) and that they score higher on proactive coping strategies than females (Greenglass, 2002). An interaction between age and school educational level was expected to influence the overall Social Well-being (Keyes, Brim, 2004). Having no previous data on personal projects, no specific hypothesis was formulated.
- 3) To examine the correlations between Social Well-being, proactive coping strategies, perceived health status and personal projects. Overall Social Well-being was expected to be positively correlated with personal projects (Lawton, 2002) and with proactive

coping strategies. Perceived health status was expected to be positively correlated with social well-being, with personal projects and proactive coping strategies.

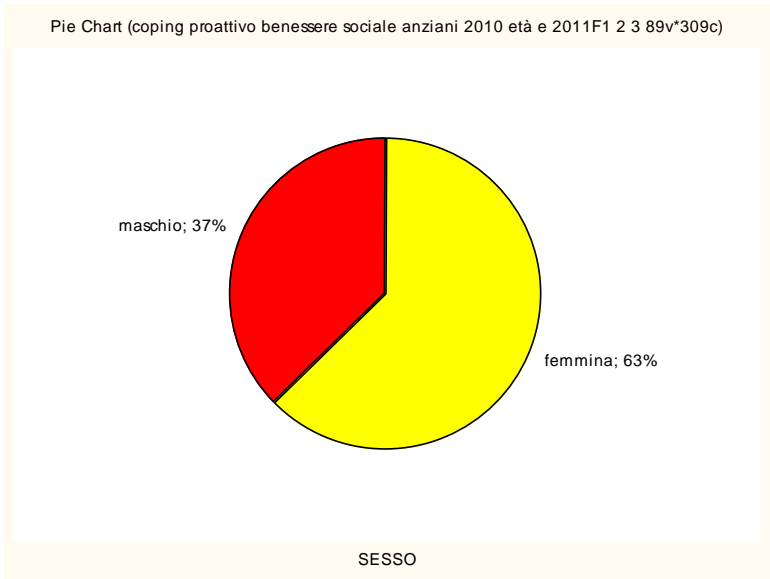
- 4) To evaluate the predictive power of proactive coping strategies and perceived health status on overall Social Well-being. Social well-being was expected to be predicted by proactive coping strategies (both in the conceptualization of Aspinwall and Taylor, (1997), and in the formulation of Schwarzer and Taubert, 2002) and perceived health status, after controlling for gender, educational level, interaction between gender and educational level, family structure.
- 5) To evaluate the predictive power of proactive coping strategies and perceived health status on personal projects. Personal-projects was expected to be predicted by proactive coping strategies (as conceptualized by Schwarzer and Taubert, 2002), due to the relevance of active and agentic intervention on social contexts of life to identify the resources for realizing them) and perceived health status (since planning for activities or projects requests a good physical health), after controlling for gender, educational level, the interaction between gender and educational level, and people in the household.
- 6) Adopting a person-centered approach (Baltes, 2000; Magnusson, 1995) it was expected the presence of different profile of functioning of the elderly on social well-being, personal projects, perceived health status and proactive coping strategies.

Chapter 6

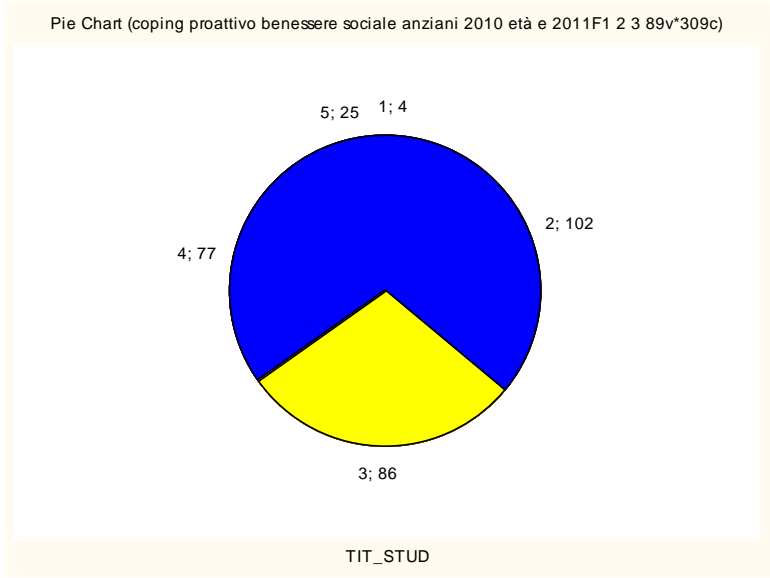
Research methodology

6.1 Participants and Instruments

The study has involved 300 older people ($M = 71.86$; $SD = 7.01$); 246 of them belong to the Third age, and 45 belong to the Fourth age). 184 were females and 109 were males, with 16 missing data for gender (see graphic 1). For educational level, 1% don't possess any level of school education; 35% possess the Elementary School Diploma; 29% the Middle School Diploma; 26% have the High School Diploma, and 9% the University Degree (see graphic 2). In more detail, 2 females don't have any level of school education, 70 female possess the elementary school diploma, 48 the middle school diploma, 50 the secondary high school diploma, 13 the University Degree. 2 males don't possess any school education, 30 males possess the elementary school diploma, 38 possess the Middle school diploma, 27 the Secondary High School Diploma and 11 the University Degree. Regarding the living condition, 183 of them live with a partner, 80 alone, 26 with a child, and 5 with kin; 6 omitted this data in the questionnaire. In more detail, those who belong to the Third age, live prevalingly with the partner (162), or alone (58); some of them live with a child (22), and very few of them live with kin (4). Those who belong to the Fourth age live prevalingly alone (21), with the partner (19), while few of them live with a child (4) or with kin (1).



Graphic 1. Composition of the sample by gender



Graphic 2. Composition of the sample by level of school education

They were recruited from Senior Centers, Sport Associations, Popular University, Trade Unions for retired, recreational organizations. They were contacted through the Directions of these Institutions after a previous presentation of the research, that provided to gather the volunteer participation. They compiled the measures in about an hour. The participants gave their consent and were than invited to fill in the following self-report questionnaires:

- Questionnaire on social well-being (Keyes 1998; Cicognani et al. 2001). This consists of five dimensions that evaluate the quality of individual functioning in social life: Social Actualization (e.g. “I think the world is becoming a better place for everyone”; $\alpha = 0.76$); Social Contribution (e.g. “I think to have something valuable to give to the world”; $\alpha = 0.80$); Social Acceptance (e.g. “I believe that people are kind”; $\alpha = 0.62$); Social Integration (e.g. “I feel close to other people in my community”; $\alpha = 0.74$); Social Coherence (e.g. “the world is too complex for me” with reverse code), $\alpha = 0.53$.
- Questionnaire on personal-project. This is a *purpose built* questionnaire with five items aimed to evaluate how many projects have the elderly in the following areas: family; leisure time; culture; physical activity and non competitive sport; civic and social participation. For the selection of the theme and the items, reference was made to the model of Lawton et al., (2002). We inserted two specific themes, the personal projects centered on family (eg. taking care of grandsons; organizing lunch or other recreational moments with all family members); and personal projects centered on physical activity and non competitive sports. Personal projects centered on the family have been inserted with a specific item since family play a central role in the life of Italian elderly for several features of well-being (Saraceno, Naldini, 2007; Zambianchi, Ricci Bitti, 2013). Personal projects centered on the involvement in behavior aimed to improve physical fitness, as attending a gym, participating in non competitive sport activities are crucial

in old age for maintaining elevated physical and cognitive functioning. Being a *purpose-built* questionnaire, the questionnaire was underwent to two factor analysis, a first Exploratory Factor Analysis (EFA), aimed to explore the structure of the questionnaire and to identify the underlying factors, and a subsequent Confirmatory Factor Analysis (CFA) aimed to confirm the factor structure that emerged by EFA and to identify the best model fit (Joreskog,1984). Several authors recommend the use of both types of factor analysis, sustaining that in the first step, an exploratory factor analysis can permit to identify the latent structure of the instrument while in the second step, the confirmatory factor analysis provide a stringent test of its fit (Corbetta, 2002). The scale was a Likert scale with score ranging from 1 (no projects) to 5 (many projects). The exploratory factor analysis highlighted a one-factor solution, with Eigenvalue 1.96 and 0.39 of explained variance (see appendix), that gathers all five items. But factor loadings verify four items (personal projects centered on family, on culture, on leisure, and on civic participation) with satisfactory factor loadings (range: -.056; -0.75) and one item (personal projects on non competitive sport and physical activity) with unsatisfactory loading (-0.35), that however contribute to the one-factor solution. In the second step, than, two Confirmatory Factor Analysis was run: the first with all five items, and the second model tested with the four items that demonstrated the more satisfactory loadings. The first model tested with Confirmatory Factor Analysis has shown acceptable goodness of fit index: Chi Square Statistic: 9.74; $df = 5$ (the range between 1-5 is considered acceptable and satisfactory); AGFI of Joreskog = 0.9 (0.9 is considered an acceptable value); GFI of Joreskog = 0.9. The RMSEA (Root Mean Square Error of Approximation, Steiger and Lind, 1980) is widely used in Structural Equation Modeling to provide a mechanism for adjusting for sample size where chi-square statistics are used. In this case, the RMSEA was = 0.05. Values that are lower or equal to 0.05 are considered as optimal fit (Mars, Hau and Wen, 2004). The

Root Mean Square Residual (Joreskog and Sorbom, 1984) are = 0.03, indicating a good fit (a good fit is lower than 0.05).

The second model tested via CFA highlighted also a good fit: Chi Square Statistic 2.72; $df = 2$; AGFI = 0.9; GFI = 0.9; RMSEA = 0.03; RMS Residual = 0.02. On several index, this model highlighted a superior goodness of fit.

The subsequent Cronbach Alpha was calculated for both solutions, highlighting a Alpha value of 0.60 for the first five-items solution, and a slightly better Cronbach Alpha of 0.62 for the second four-items solution.

On the basis of the factor loadings that are considered good when they present values superior to 0.40, and the factor labeling that is considered meaningful when it contains almost two variables with factor loading superior to 0.60 (Everaert, 2007), the second model (the four-items model) was chosen. Than this global index of personal projects was used in the subsequent statistical analyses.

- Questionnaire on proactive coping (PCI) (Greenglass et al. 2002; Comunian et al. 2003). This consists of 7 scales; we selected three scales: proactive coping (14 items; $\alpha = 0.84$) that assesses the attitude toward striving for a better future (e.g. “after attaining a goal, I look for another, more challenging one”), reflective coping (11 items; $\alpha = 0.77$), that assesses the ability to visualize future scenarios (e.g. “I think about every possible outcome to a problem before tackling it”) and preventive coping (10 items; $\alpha = 0.77$) that assesses the processes through which one prepares for potential future stressors (e.g. “I make plans of things to do before bad events happens”), with a score ranging from 1 (not at all true) to 4 (completely true). We chose these scale because they represent the fundamental forward-looking sub-scales (preventive and reflective coping) and resource-based sub-scale (proactive coping) highlighted by Schwarzer and Taubert (2002).

- A single item assessed the perceived health status with a Likert scale ranging from 1 (very poor) to 5 (very good). (“How do you define your health status?”)

6.2 Statistical plan.

Statistical analyses were run in six steps. Firstly, means, standard deviations, skewness and kurtosis were calculated for all variables. In the second step, for the *purpose –built* questionnaire on personal-projects, a first, Explorative Factor Analysis (principal component analysis) was conducted, followed by a Confirmatory Factor Analysis in order to evaluate the psychometric property of the scale (see above, chapter 6). In the third step, Manova models were run in order to assess the influence of socio-demographic variables (gender, level of education; people in the household; age was not inserted as dichotomous variable because the proportion of the older people being in the fourth age, 19%, was not sufficient for a reliable multivariate test of significance, see above) on Social Well-being, personal-projects, proactive coping and health status. They were also tested the interactions between these socio-demographic variables on social well-being and personal projects. Univariate analyses of variance (ANOVA) were subsequently run to identify the specific variables that have shown significant different scores. In the fourth step, several correlational matrix (Pearson’s product-moment, due to the Gaussian shape of the variables and factors, see chapter7) was calculated. In the fifth step, two GLM models was run respectively for overall Social Well-being and for personal projects as dependent variables. Through GLM indeed is possible to evaluate a whole model that comprise also the interaction of categorical variables on the dependent variable. Than two subsequent Ridge Regression Models was run respectively for social well-being and personal-projects as dependent variables. The Ridge step-wise Regression was chosen because it is a variant of ordinary multiple linear regression

whose goal is to circumvent the problem of predictors collinearity and it is used when is not possible to utilize the ordinary least square method (Hoerland, Kennard 1970). Having the three proactive strategies medium-high intercorrelations (range: 0.58-0.70), the question of the multicollinearity represented a serious threat to the reliability of the results. Finally, two Cluster Analysis (Hierarchical, Wards' method, and K-mean method) were run in order to identify specific different profile of functioning of the elderly. This analysis were chosen to minimize the variability within clusters and maximize variability between clusters (Everitt, Landau and Leese, 2001). All statistical analyses were performed with STATSOFT 2007 package.

Part II

Results

Chapter 7

Descriptive statistics of the sample

7.1 Social well-being.

The older people show a medium score on overall Social Well-being ($M = 4.22$). Referring to its sub-dimensions, Social integration is the dimension that shows the highest score ($M = 4.72$), while the lowest score is reported on Social Acceptance ($M = 3.89$). (see table2).

7.2 Life-Projects.

The older people formulate personal projects mainly centered on leisure time (eg. shopping, holiday $M = 3.18$) and centered on family (eg. taking care of grandchildren, $M = 3.15$). these two areas received indeed the highest score. Personal projects concerning physical activity (eg. attending a gym) received the lowest one (2.53), while personal projects centered on civic and social participation obtained a medium level score (see table 3).

7.3 Perceived health status. This factor show a medium level score. See table 4

7.4 Proactive coping.

The proactive coping strategies conceived as “resource accumulation and development of potential” (Schwarzer and Taubert, 2002) show a medium- low level scores ($M = 2.93$), while appeared slightly more elevated the scores obtained on preventive coping and reflective coping (see table 5). T- test highlighted a significant difference between the score of proactive coping and the score of preventive coping ($p < 0.001$) and reflective coping ($p < 0.01$).

Table 2. Means, Standard Deviations, Skewness and Kurtosis of Social well-being

variable	M	SD	Skewness	Kurtosis
Social integration	4.73	0.87	-0.24	0.54
Social acceptance	3.89	0.79	-0.07	0.16
Social actualization	4.06	0.81	0.06	0.32
Social contribution	4.32	0.92	-0.12	0.29
Social coherence	4.09	0.91	0.11	-0.08
Social well-being global sc.	4.22	0.58	0.05	0.98

Table 3. Means, Standard Deviations, Skewness and Kurtosis of personal projects

variable	M	SD	Skewness	Kurtosis
personal project family-centered	3.15	0.96	-0.22	0.07
personal project cultural-centered	2.66	1.13	0.06	-0.72
personal project leisure centered	3.18	0.93	-0.07	0.05
personal project physical activity centered	2.53	1.19	0.40	-0.63
personal project social and civic participation	2.71	1.18	0.19	-0.67
Global index of personal-projects	2.85	0.66	0.03	0.32

Table 4. Means, Standard Deviations, Skewness and Kurtosis of perceived health status

variable	M	SD	Skewness	Kurtosis
Perceived health status	3.24	0.89	0.10	0.70

Table 5. Means, Standard Deviations, Skewness and Kurtosis of proactive coping strategies

variable	M	SD	Skewness	Kurtosis
Proactive coping	2.93	0.49	-0.14	-0.09
Preventive coping	3.06	0.42	-0.34	0.12
Reflective coping	3.07	0.43	-0.14	-0.40

Chapter 8

The influence of educational level, gender and people in the households on social well-being, personal projects, perceived health status and proactive coping strategies.

8.1 The educational level

A Multivariate Analysis of Variance (Manova) was run in order to test the influence of educational level on Social well-being (Wilk's Lambda = 0.89; $F = 2.11$; $p < .01$). Four level of education entered into the analysis: Elementary School Diploma; Middle School Diploma; Secondary High School Diploma, and University Degree. The subsequent Univariate Anova showed that educational level influences the following sub-dimensions: Social Acceptance ($F = 3.33$; $p < .01$); Social Contribution ($F = 4.79$; $p < .01$); Social Coherence ($F = 4.85$; $p < .01$) and Social Well Being as global score ($F = 5.89$; $p < .001$). Table 6 highlights that the higher the level of education, the higher the level of well-being experienced by the old people. (planned comp. $p < 0.001$) The interaction between gender and educational level for social well-being reached the significance ($MS = 0.63$; $F = 2.28$; $p < .07$): being male with a University Degree is related to the highest score on global social well-being. (see table n. 7 and graphic 3)

Another Manova model was run in order to test the influence of educational level on life-project as global index (Wilk's Lambda = 0.79; $F = 4.52$; $p < .001$). The subsequent Anova highlights the significance of this socio-demographic variable for cultural projects ($F = 19.17$; $p < .001$); for physical activity ($F = 2.75$; $p < .05$); for civic participation ($F = 3.81$; $p < .01$) and for global life-projects ($F = 8.71$; $p < .001$).

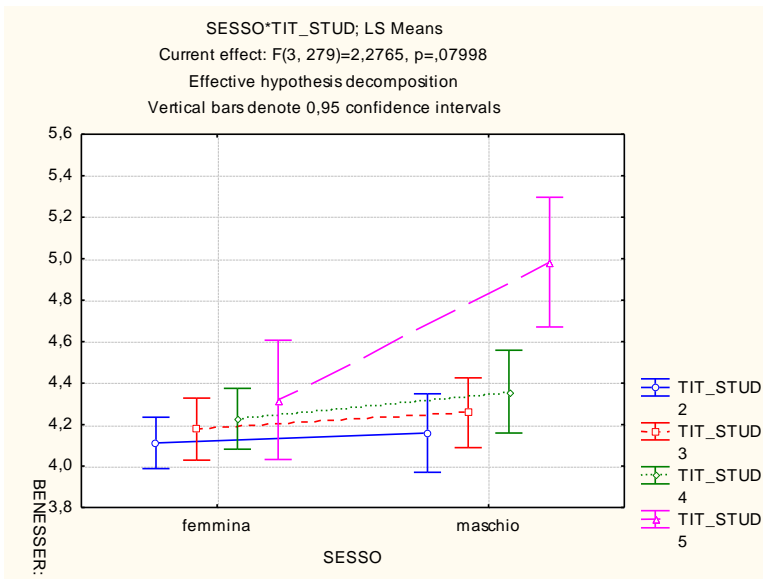
Multivariate test of significance for planned comparisons highlighted a level of significance. Tukey Test HSD for global life projects confirm the significant differences among the four levels of education ($p < .001$ for all levels). (see graphic 4)

Table 6. Level of education and Social well-being

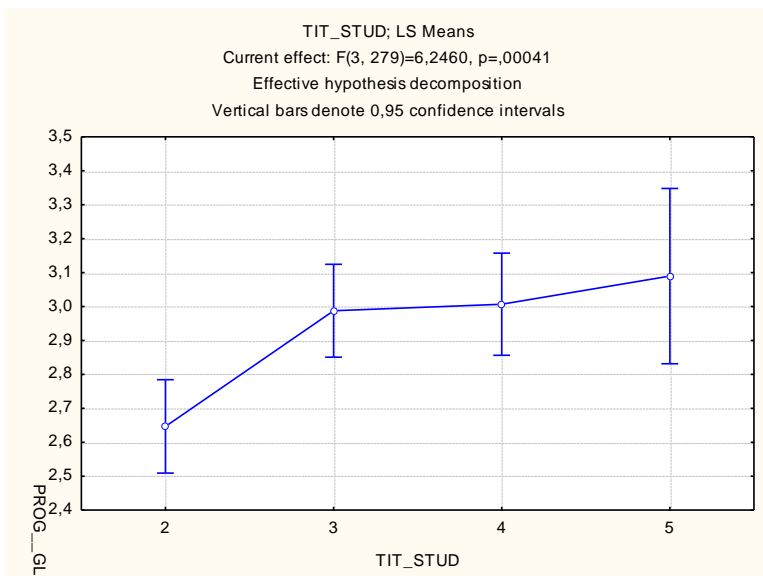
	Elementary school	Middle school	Secondary High sc.	Degree
Overall social well-being	M = 4.11 (DS = 0.54)	M = 4.21 (DS = 0.46)	M = 4.27 (DS = 0.57)	M = 4.60 (DS = 0.59)
Social contribution	M = 4.20 (DS = 0.46)	M = 4.31 (DS = 0.82)	M = 4.36 (DS = 0.95)	M = 4.95 (DS = 0.76)
Social coherence	M = 3.83 (DS = 0.94)	M = 4.17 (DS = 0.81)	M = 4.20 (DS = 0.90)	M = 4.46 (DS = 0.87)
Social acceptance	M = 3.83 (DS = 0.78)	M = 3.93 (DS = 0.77)	M = 3.95 (DS = 0.78)	M = 4.23 (DS = 0.82)

Table 7. Level of education and personal projects

	Elementary school	Middle school	Secondary High sc.	Degree
Global index of personal projects	M = 2.65 (DS = 0.69)	M = 3.03 (DS = 0.72)	M = 3.11 (DS = 0.66)	M = 3.29 (DS = 0.58)
Cultural projects	M = 2.09 (DS = 0.98)	M = 2.86 (DS = 1.15)	M = 3.03 (DS = 1.03)	M = 3.46 (DS = 0.88)
Civic and social participation projects	M = 2.42 (DS = 1.22)	M = 2.88 (DS = 1.22)	M = 2.87 (DS = 1.06)	M = 3.04 (DS = 0.93)



Graph 3. The interaction effect between gender and level of school education on Social well-being



Graph 4. Level of school education and global personal projects.

8.2 Level of education.

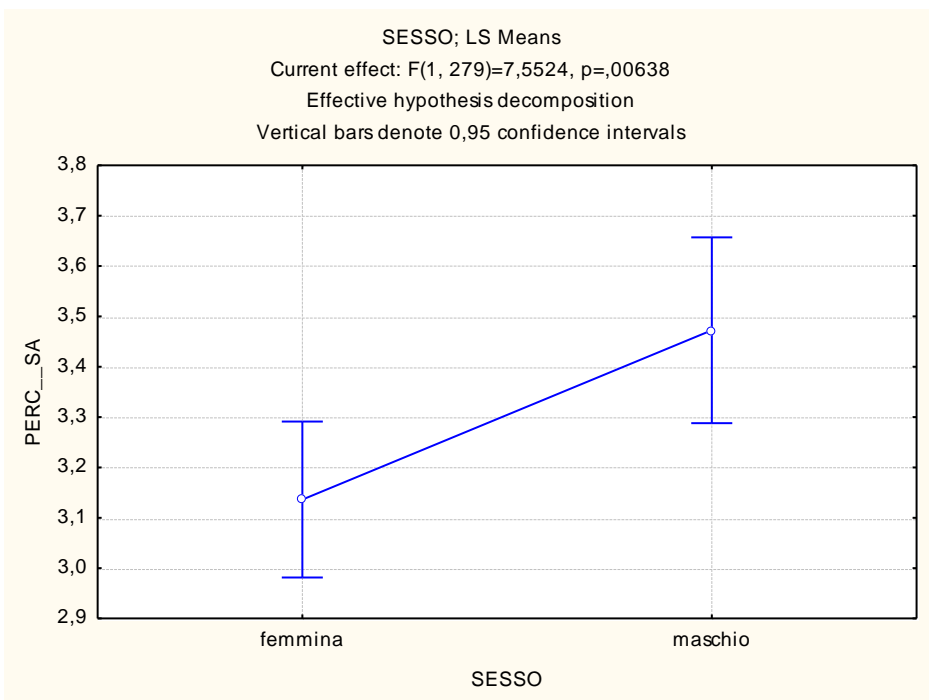
Level of education has no effect on the perceived health status ($p < .39$), neither on proactive coping strategies ($p < .38$).

8.3 Gender

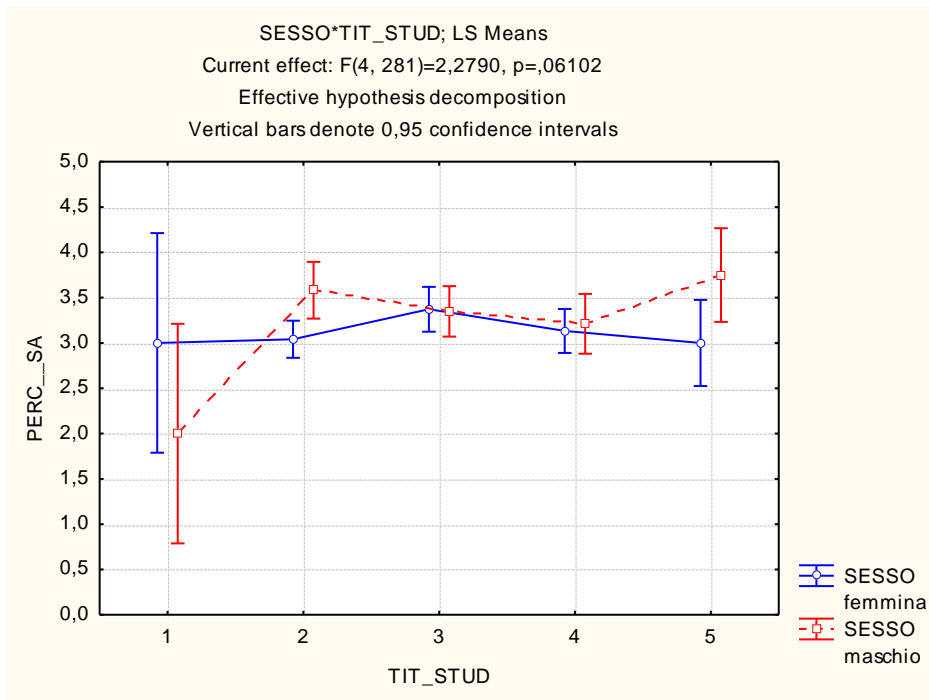
A Manova Model was run to test the influence of gender on Social Well-being (Wilk's Lambda = 0.96; $F = 2.38$; $p < 0.5$). Subsequent Univariate Anova test showed a influence of gender on Social Integration ($F = 6.62$; $p < 0.01$) with males having a higher score than females ($M = 4.90$; $SD = 0.90$; $F = 4.63$; $F = 0.82$), on Social Contribution ($F = 9.77$; $P < 0.001$), with males having a higher score than females ($M = 4.55$; $SD = 0.94$; $F = 4.21$; $SD = 0.94$), and on overall Social Well-being ($F = 7.80$; $p < 0.001$) with males having a higher score than females ($M = 4.34$; $SD = 0.63$; $F = 4.16$; $SD = 0.49$)

A Manova model was run to test the influence of gender on personal projects (Wilk's Lambda = 0.91; $F = 5.33$; $p < 0.001$). Univariate Test highlighted a significant effect of gender on personal projects centered on civic and social participation ($F = 17.52$; $p < 0.001$), where males possess a higher number of personal projects than females ($M = 3.09$; $SD = 0.1.12$; $F = 2.51$; $SD = 1.14$).

Gender furthermore highlighted a significant effect on perceived health status ($F = 5.98$; $p < 0.05$). Females declared a lower health than males (see graph 5). An interaction effect between gender and educational level that reached the significance was found for perceived health status ($F = 2.38$; $p < 0.06$). Males with a Degree showed a better perceived health status than female with Degree ($M = 3.74$; $SD = 0.88$; $F = 3.00$; $SD = 1.00$; Duncan test = $p < 0.001$). (see graph 6)



Graph 5. Gender differences for perceived health status



Graph 6. Interaction effect between gender and level of school education on perceived health status

No effect of gender on proactive coping strategies has emerged from the Manova model ($p<0.19$). Interaction effect between age and educational level has not been found for social well-being and life-projects, nor between gender and educational level for life-project. The interaction between gender and educational level for overall social well-being reached the significance ($MS = 0.63$; $F = 2.28$; $p<.07$): being male with a University Degree is related to the highest score on global social well-being.

8.4 The people in the households of the elderly

For Manova models, only three living condition entered into the models, (1) living with a partner, (2) living alone and (3) living with children(s); living with parents was deleted because its marginal relevance (only 5 old people declared to live with parents).

Results highlighted a non-significance for Social Well-being ($p<0.25$), a non-significance for proactive coping strategies ($p<0.82$) and a non significance for personal

projects as global index ($p < 0.13$) and a non significance for proactive coping strategies ($p < 0.82$).

Chapter 9

Correlations among study variables

9.1 Correlations between Social Well-being and personal projects

The overall Social well-being appears to be positively correlated with the global index of personal projects (0.36) and with all types of personal projects, with the exception of personal projects in the physical activity and non competitive sport domain. The correlations are of medium level, ranging from .025 to 0.31 (see table 8). For specific social well-being sub-dimensions, the highest correlation emerged between social contribution and personal projects centered on civic participation, volunteering activities and political activities (0.40). Social integration is positively correlated with personal projects on civic participation, family and leisure time. Social acceptance is positively correlated with personal projects on culture, leisure time and family. Social coherence is positively correlated with personal projects centered on culture (0.31), leisure time (0.25) and, with lesser intensity, with civic participation and family (see table 8)

Table 8. Correlations between personal projects and social well-being

VARIABLE	Social integration	Social acceptance	Social actualization	Social contribution	Social coherence	Overall social well-being
Global index of personal projects	0.23***	0.19**	0.12*	0.30***	0.30***	0.36***
Family personal projects	0.18**	0.20***	0.12*	0.15*	0.16*	0.25***
Culture personal projects	0.10	0.18**	0.21***	0.19**	0.31***	0.31***
Leisure personal projects	0.14*	0.13*	0.14*	0.14*	0.25***	0.25***
Physical activity personal projects	0.09	0.03	-0.05	0.03	0.04	0.04
Civic and social participation personal projects	0.18**	0.07	-0.02	0.40***	0.16*	0.26***

*P<0.05; ** P<0.01; *** P<.001

9.2 Correlations between Social well-being and perceived health status.

Perceived health status appear to be positively correlated with overall social well-being (0.14*) and with Social integration (0.17*). (See table 9)

Table 9 .Correlations between perceived health status and social well-being

variable	Social integration	Social acceptance	Social actualization	Social contribution	Social coherence	Overall social well-being
Health status	0.17**	0.05	0.05	0.10	0.07	0.14*

9.3 Correlations between personal projects, proactive coping strategies and health status

The global index of personal projects is positively correlated with proactive coping strategies (0.31***), perceived health status (0.26**) and preventive coping strategies (0.18*). At the level of specific area of projects, personal projects centered on family (the role of grandparent, bring together the family for festivities..) is positively correlated with proactive coping strategies and preventive coping strategies. Personal projects centered on culture are positively correlated with perceived health status and with proactive coping strategies. Personal projects centered on leisure time show a positive correlation with perceived health status , proactive coping strategies and with preventive coping strategies. Personal projects based on physical activity are positively correlated with perceived health status (0.18**) and with proactive coping strategies. Personal projects centered on civic participation are positively correlated with proactive coping strategies, with reflective coping strategies, with preventive coping strategies and perceived health status. (see table 10)

Table 10. Correlations between personal projects, proactive coping strategies and health status

VARIABLE	Health status	Proactive coping	Reflective coping	Preventive coping
Global personal projects index	0.26***	0.31***	0.15*	0.18**
Family personal projects	0.09	0.24***	0.11	0.14*
Culture personal projects	0.20***	0.13*	0.05	0.08
Leisure time personal projects	0.16**	0.19**	0.07	0.12*
Physical activity personal projects	0.18**	0.13*	0.09	0.08
Civic participation personal projects	0.15*	0.26***	0.15*	0.13*

*p<0.05; ** p<0.01; *** p<.001

9.4 Correlations between Social well-being and proactive coping strategies

The overall social well-being is positively correlated with proactive coping strategies (0.27***), preventive coping strategies and reflective coping strategies. At the level of its specific dimensions, Social Integration is positively correlated with proactive coping strategies (0.41***), preventive coping strategies and reflective coping strategies. Social contribution is positively correlated with proactive coping strategies, reflective coping strategies and preventive coping strategies. Social actualization is positively correlated only with reflective coping strategies, while Social acceptance and Social Coherence don't show any significant correlation with these coping strategies. (see table 11)

Table 11. Correlations between social well-being and proactive coping strategies

Variable	Social integration	Social acceptance	Social actualization	Social contribution	Social coherence	Overall social well-being
Proactive coping	0.41***	0.04	0.10	0.27***	0.04	0.27***
Reflective coping	0.28***	0.05	0.13*	0.15*	0.00	0.19**
Preventive coping	0.29***	0.01	0.11	0.18**	0.08	0.21***

*P<0.05; ** P<0.01; *** P<.001

9.5 Correlations between proactive coping strategies and perceived health status

The perceived health status is positively correlated with proactive coping strategies, with preventive coping strategies and with reflective coping strategies (see table 12)

Table 12. Correlations between proactive coping strategies and perceived health status

variable	Health status
Proactive coping	0.15*
Reflective coping	0.14*
Preventive coping	0.18**

*p<0.05; ** p<0.01

Chapter 10

The predictors of Social well-being

Generalized Linear Model (GLM) was used in order to evaluate a whole model with global index of personal projects, perceived health status, proactive coping strategies, reflective coping strategies, preventive coping strategies predictor variables and social well-being as outcome variable. Through GLM was tested also in the whole model the influence of categorical variables sex and level of education, and the interaction between them. A subsequent multiple Ridge step-wise regression was performed to evaluate the predicting power of these variables on social wellbeing. The Ridge step-wise regression was chosen because it is a variant of ordinary multiple linear regression whose goal is to circumvent the problem of predictors collinearity and it is used when is not possible to utilize the ordinary least square method (Hoerland, Kennard 1970). We performed a forward step-wise selection, that starts with the intercept and then sequentially adds into the model the predictors that most improves the fit.

Table13. GLM Whole Model . Overall Social Well-being as dependent variable

	<i>Beta</i>	<i>t</i>	<i>St. error Beta</i>
Perceived health status	0.06	1.18	0.05
Proactive coping	0.239**	2.94	0.081
Reflective coping	-0.07	-0.82	0.087
Preventive coping	0.07	0.84	0.088
Gender	-0.16**	-2.51	0.064
Level of education	-0.22***	-3.85	0.059
Gender*ed.Level (1)	0.12*	1.99	0.063
Gender*ed.Level (2)	0.08	1.34	0.061
Gender*ed. Level (3)	0.03	0.58	0.061

(1) (males/females with elementary schools/ Degree) *p<0.05; ** p<0.01; *** p<.001

(2) Multiple R = 0.40; Multiple R2 = 0.16; Adjusted R2 = 0.12 ; df = 11; F = 4.86; p<0.000001)

Table 14. Ridge Regression Model for overall Social Well-being as dependent variable (method: forward step-wise)

	<i>Beta</i>	<i>St. error of Beta</i>	B	t	F -to enter
Proactive coping	0.214***	0.05	0.241	3.99	18.11
Level of education	0.185***	0.05	0.103	3.50	13.20
Gender	0.09+	0.05	0.038	1.86	4.06
Health status	0.07	0.05	0.044	1.31	1.72

+p<0.06; ***p<0.001

Multiple R = 0.34; Multiple R2 = 0.11; Adjusted R2= 0.10 F (4.28) =9.57; p<0.00001

GLM highlighted three significant predictors of overall Social well-being, the proactive coping strategies, gender and level of education. An interaction effect between gender and level of education was also significant; males with University Degree possessing a higher level of overall Social well-being compared to the other sub-groups (Duncan Test, $p < 0.001$). (see table 13)

The Ridge Multiple Regression Model highlights as positive predictors of overall Social well-being the proactive coping strategies, the level of education, and gender (that reach the significance), as verified with GLM (with which was possible verify also the influence of the interaction between gender and educational level on social well-being). In the Ridge Regression the introduction of perceived health status do not improve the Multiple R value, highlighting that the better fit was reached with the first three significant predictors. (see table 14)

Chapter 11

The predictors of personal projects

Generalized Linear Model (GLM) was used in order to evaluate a whole model with perceived health status, proactive coping strategies, reflective coping strategies, preventive coping strategies as predictor variables and global index of personal projects as outcome (dependent) variable. Through GLM was tested also in the whole model the influence of categorical variables sex and level of education, and the interaction between them. A subsequent multiple Ridge step-wise regression was performed to evaluate the predicting power of these variables on the global index of personal projects. We performed a forward step-wise selection, that starts with the intercept and then sequentially adds into the model the predictors that most improves the fit. The two models, respectively the GLM and the Ridge Regression Model were compared on the explained variance and on the overall fit indexes.(see table 15 and table 16)

Table15 . GLM. Personal projects as dependent variable

	<i>Beta</i>	<i>t</i>	<i>St. error Beta</i>
Perceived health status	0.180***	3.24	0.055
Proactive coping	0.389***	4.96	0.078
Reflective coping	-0.134	-1.59	0.084
Preventive coping	-0.038	-0.44	0.084
Gender	-0.038	-0.61	0.062
Level of education	-0.29***	-5.14	0.056
Gender*ed.Level (1)	-0.003	-0.04	0.060

*p<0.05; ** p<0.01; *** p<.001

Multiple R = 0.47; Multiple R² = 0.22; Adj. R² = 0.19; df = 11; F = 7.76; p<0.0000001

Table 16. Ridge Regression Model (method: forward step-wise)

	Beta	Std. err. Beta	B	t	F-to enter	Multiple R
Level of education	0.275***	0.050	0.200	5.46	26.90	0.29
Proactive coping	0.301***	0.064	0.441	4.67	27.08	0.40
Perceived health status	0.169***	0.050	0.138		10.68	0.44
Reflective coping	-0.08	0.064	-0.148	3.33	1.87	0.44

*** p<.001

GLM highlighted three significant predictors of personal projects, the perceived health status, the proactive coping strategies and the level of education. The interaction between gender and level of education reached the significance. Perceiving a better health, using often the proactive coping strategies, possessing a high level of school education and being males with a high school education (University Degree) contributed to a high number of personal projects that old people would like to realize. The Ridge Regression Model confirmed the significance of level of education, proactive coping strategies, perceived health status for personal projects in old age. When indeed a fourth variable, reflective coping, was added to the model, the value of Multiple R did not change, highlighting that the better fit was reached with the first three independent variables.

Chapter 12

Different profile of functioning in old age

Magnusson (1995), referring to Block (1971), argued the need to integrate the “variable approach” with the “person –centered approach” to the human investigation. For Magnusson each individual functions and develops as a conscious, active and intentional part of an integrated, complex, dynamic, and adaptive person-environment system (pp.4-5). Posing the individual as the organizing principle for scientific inquiry implies a shift from a more common variable-approach to an approach where the main focus is the functional interaction and synchronization of these variables within a specific individual, instead of statistical interaction models in the treatment of data.

Adopting a “person-centered” approach” instead of a “variable –centered” approach to positive functioning in old age (Smith and Baltes, 2000), two cluster analyses were run. The aim of the cluster analysis is to create internally cohesive groups and to maximize the differences between groups based on a set of scores (Milligan, 1980). A first hierarchical cluster analysis with Wards’ method (that minimizes the variance between groups and is most appropriate for quantitative variables), was conducted; a subsequent K-mean cluster analysis was conducted using overall Social Well-being, global index of personal projects, proactive coping strategies, and perceived health status as grouping variables. The k-means clustering produces a partition of the data into a particular number of groups. This method was chosen to minimize the variability within clusters and maximize variability between clusters (Everitt, Landau and Leese, 2001). Being the scores of selected factors on different Lickert point scales, all factors were converted to

standard score with a mean of 0 and a standard deviation of 1. Subsequently, Univariate Anova were used to validate cluster differences in grouping variables. (see table 18)

K-mean solution resulting in three clusters was chosen based on the results of output dendrogram,-statistics, memberships characteristics, and three principles: the theoretical meaningfulness, the parsimony and the explanatory power of each cluster.

Table 17. Descriptive statistic for each cluster

Cluster 1 (91 cases) “The successful agers”

	M	SD	Variance
Social well-being	0.59	0.95	0.91
Personal projects	0.88	0.78	0.61
Proactive coping	0.70	0.78	0.61
Health status	0.88	0.89	0.80

Cluster 2 (107 cases) “The resilient agers”

	M	SD	Variance
Social well-being	0.24	0.66	0.43
Personal projects	-0.10	0.67	0.45
Proactive coping	0.24	0.71	0.51
Health status	-0.56	0.71	0.50

Cluster 3 (102 cases) “The usual agers”

	M	SD	Variance
Social well-being	-0.78	0.82	0.67
Personal projects	-0.67	0.86	0.75
Proactive coping	-0.88	0.74	0.55
Health status	-0.19	0.79	0.62

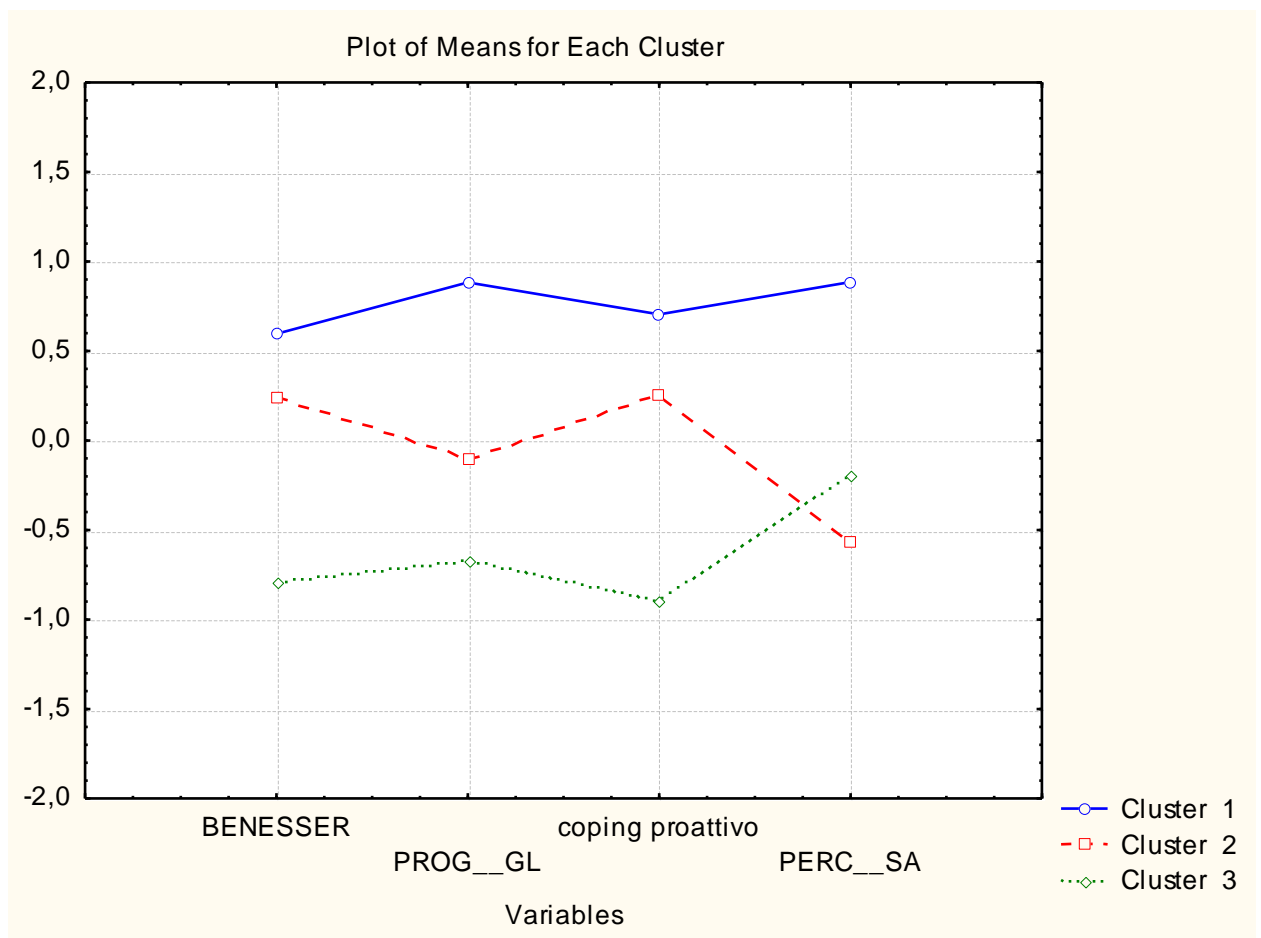
Table 18. Analysis of Variance

	Between SS	Within SS	F	p
Social well-being	101.5	197.4	76.36	0.00000
Personal projects	118.8	180.12	98.00	0.00000
Proactive coping	132.5	166.47	118.22	0.00000
Health status	109.5	189.45	85.86	0.00000

The first cluster was composed of 95 subjects (46 female and 44 males; 80 in the Third age and 11 in the Fourth age; 30 with Elementary School diploma, 28 with Middle School diploma) and it showed scores upper the mean on all factors included. Older people that are grouped in this cluster can be defined as “successful agers”, having a high profile of overall functioning. This cluster is balanced for gender (37 males and 37 females), while it is prevailingly the Third Age, with 80 subjects, and 11 in the Fourth Age.

The second cluster was composed of 107 subjects (69 female and 38 males, 98 in the Third age and 8 in the Fourth age; 36 with Elementary school diploma, 33 with Middle School diploma, 28 with Secondary High school diploma and 8 with University Degree) and it showed scores upper the mean on Social Well-being, and proactive coping strategies. Scores on perceived health status and personal projects are below the mean. The older people that are grouped in this cluster show a very low level of perceived health, a level of personal projects slightly below the mean but a fairly high level of social well-being, and a frequent use of proactive coping strategies. They were, therefore, defined as “resilient agers”, because of their ability to maintain a positive social functioning in spite of worse perceived health conditions.

The third cluster consisted of 102 subjects (63 females and 29 males; 76 in the Third age and 23 in the Fourth age; 38 with Elementary school diploma, 25 with Middle School diploma, 28 with Secondary High school diploma and 6 with University Degree), and it showed scores below the mean on all factors considered. Older people that are grouped in this cluster present a low Social well-being, few personal projects, a scarce use of proactive coping strategies and a not so good perceived health status. This group was defined as “usual agers”, due to their low level of well-being and the presence of few personal projects. They present a risk condition for decline in several areas of functioning, lacking of social resources and effective strategies to counterbalance or to deal with declines. (See graph 7)



graph 7. Profiles of functioning (K-mean method)

Part III

Discussion and conclusions

Chapter 13

Discussion and Conclusions

13.1 The characteristics of the sample

The older people possess a medium level of overall Social well-being; regarding the sub dimensions of the scale, they present the highest score on Social integration, as hypothesized. These results confirm the studies of Keyes and Brim (MIDUS, 2004) and other more recent researches (Zambianchi, Ricci Bitti, 2012; 2013). The proximal life context, as neighborhood or community become, in the latest phase of life, of crucial relevance for experiencing sense of belonging. An unexpected result is the low level of Social acceptance, that perhaps reflects a difficulty of the elderly to give confidence to unknown persons in a complex and fast-changing society (Beck, 2000). A further explanation may come from the Socioemotional Selectivity Theory (Carstensen et al., 1999), that predicts, with advancing aging, a progressive prune of the external social ties and a research of well-known friends, acquaintances and kin. The medium-low level of Social coherence, as highlighted yet in the studies of Keyes (1998; 2004; 2007) confirm the difficulties of the oldest to comprehend the contemporary society, perhaps very different from that society where they were born and educated, with different values, and social models.

The personal projects that appear to be the most relevant and motivating belong to two areas: family and leisure time. The family confirm itself as one of the most important context for social identity and for valued roles available in old age, as proposed by SPF Theory (Ormel et al., 1997; Stevernik et al., 2006). The fulfillment of affection indeed needs take place inside it, and this is true especially for Italian society. Personal projects

centered on culture and on improving knowledge are few; they are mainly associated (as hypothesized) to a high level of education. Personal projects centered on civic and social participation (eg. volunteering and political activity) do not represent areas subjected to major investment by the elderly. The issue of satisfaction of confirmation needs and, even more, of status needs in old age, highlighted by SPF, represents a problematic dimension of aging in our contemporary society, where the retirement represents a crucial turning point related to the loss of a valued social identity, related to work. The high correlation that we have found between social contribution and personal projects centered on civic and social participation shows that is through this type of investment that older people feel to give a significant contribution to society. The area of investment related to physical health, fundamental for attaining and maintaining a high level of global functioning in old age and to postpone the onset of frailty and loss of autonomy, deserve more attention in the future. Referring to Rowe and Khan perspective (1997), Weir et al., (2010), have identified that with advancing age, the factors that most prominently limit the capacity to age successfully are the impaired cognitive and physical functioning. This data that emerges in this study require attention and future research aimed to evaluate if projects centered on health (as being involved in several physical activities) are, and to what extent, contemplated by the elderly. Older people indeed formulate very few projects in this life domain that is part of a broader healthy lifestyle. Health sciences will have to pay more attention to this population target, studying more in depth the individual, psychosocial and cultural factors that favor the involvement in physical activity (and non competitive sport), due to their relevance for successful aging and longevity (Janssen, 2013). On the other side, the positive correlation that has emerged between personal projects on physical activity - non competitive sport and preventive coping shows clearly that the adoption of cognitive strategies and subsequent action and plans aimed to prevent the onset of

health problems can facilitate the augment of time devoted to this healthy activities (eg. walking, bicycling, attending a gym).

Older people utilize more frequently two types of forward-looking strategies, namely the preventive strategies and the reflective strategies; they utilize less the proactive coping strategies, a result in line with those highlighted by Greenglass et al., (2006). They perceive a medium level of health, although this data should be taken with caution, due to the single-item through which it is measured.

13.2 Gender differences and education differences on study variables

Regarding Social well-being, the study confirm that men possess a higher level of overall social well-being than women and on several its sub-dimensions, namely Social integration and Social contribution, as previously highlighted by Keyes (1998) and by Zambianchi and Ricci Bitti (2011; 2012; 2013). This data could be explained referring to historical and cultural contexts where the elderly grow. Old female are grow indeed in system values and educational systems that placed a strong emphasis on their realization inside home, as mothers or “*weavers of relations*” among kin (Scabini, 1995 ; Saraceno, Naldini, 2007). Their principal roles were related to family ties and children education, with very few opportunity outside home dimension (especially for those women with low school education). Social well-being that represents the perceived quality of the relation between individual and society ad proximal (Social integration) and distal (Social actualization, Social coherence) appears, as hypothesized, higher in old men, than in old women, and especially in old men with Degree, a result in line with Keyes (2004). in his studies, indeed, sex was a strong predictor of high overall Social well-being: females reported higher Social acceptance than males, but males reported a greater sense of Social coherence than females. As proposed by Elder jr (1998) into a life-span theoretical perspective, the resources that were set in motion at early stages of

life (one of this is undoubtedly school education) trigger positive and virtuous spirals that lead, across life-span, to the accumulation of advantages. One of such advantages is the high perceived social well-being.

Gender differences are still present also in the domain of personal projects. Men possess more personal projects in the domain of civic and social participation than women, a result that confirms the previous study of Freund and Baltes (1998) on political and civic participation during old age. This strong difference between sex may be traced to the division of the roles between the two sexes, that was a common underlie of the traditional Italian (and European) culture before the second World War. Social participation indeed, and more political activity have been identified, over the centuries, such as male gender- specific. This division of roles constituted the educational model to which they have referred the now elderly women.

Gender differences are present as well in the perception of health status. Female declare a lower level of health than males, a data that confirms the studies of gerontological medicine females indeed live more longer, but with a worse health condition than males (Murtagh et al., 2004). They tend to suffer, more than men, of osteoarthritis, rheumatism, osteoporosis, and other inflammatory-related degenerative processes. Men present a lower life-expectancy, but they tend to possess a better health.

An interesting effect about health has emerged from the interaction between gender and level of education. Older people that declare the best perceived health status is of males with Degree. Women with a University Degree declare a lower level of health. This interesting result shows that physical health cannot be explained only through bio-medical models, but through models and perspectives bio-psycho-social in nature (Engel, 1970). In this case, male gender, when can benefits from cultural (and cognitive, social and contextual) resources, appear to set in motion, over time, to

“positive longitudinal chains” that will have, as outcome, a better health in old age. The competencies and resources that a high educational level provides, can lead to a better life quality (Hatch, 2005), of which physical health is undoubtedly an important component.

The research on the determinant of life-quality and the systemic models on successful aging (Kahana and Kahana, 2003; Elder jr, 1998) have long since highlighted the relevance of skills, competencies and resources accumulated over life-time. Also the Health Economics (a field of research aimed to evaluate the interplay between ..) have drawn attention on the “capability approach” (Sen, 2004), identify in the resources owned by individual one of the most important capital (unequally distributed) for personal grow and social well-being. The capability approach entails two core normative claims: first, the claim that the freedom to achieve well-being is of primary moral importance, and second, that freedom to achieve well-being is to be understood in terms of people's capabilities, that is, their real opportunities to do and be what they have reason to value. The capability approach has also led to a new and highly interdisciplinary literature in the social sciences resulting in new statistics and social indicators, and to a new policy paradigm which is mainly used in development studies, the so-called ‘human development approach’ (Sen, 1993).

13.3 Correlations among factors

An interesting and hypothesized result is the positive correlation between personal projects and social well-being. The previous research (Lawton, 2002; Rapkin, Fisher, 2002) has highlighted the association between personal projects and other facets of well-being, eg. emotional well-being and satisfaction with life (Diner et al., 1999). Overall social well-being appears to be positively correlated with the global index of personal projects, and also with all specific areas of planning, with the notable

exception of physical activity and non competitive sport, dimension that do not correlate with any sub-dimensions of social well-being.

Social integration, the proximal component of social well-being (being referred to neighborhood and community) is positively correlated with personal projects centered on family and civic participation, confirming that older people “invest” motivation and planning on the surrounding life-context.

Social acceptance is positively correlated with personal projects centered on family, culture and leisure time. Having a positive attitude toward the others (not only well-known acquaintances, but also unknown others), and thinking that they can trust, is linked to the desire to improve personal culture, to explore new social contexts (eg. with travel). The Sociemotional Selectivity Theory posits that in old age there is the tendency to prune the peripheral social ties and to reduce the interest in knowledge goals (Carstensen et al., 1999), due to the perceived short future time. It may be that other variables, such as educational level or trust in society could reduce this tendency and sustain the need of exploration and knowledge.

Social contribution shows the highest correlation with the investment on civic and social participation, highlighting that the fulfillment of confirmation and status needs that derive from valued social roles (eg. having a political role or taking part in actions in favor of the community) fosters the beliefs in own efficacy and in giving a significant contribution to society. (Stevnik et al., 2006). Also the formulation of personal projects focused on culture improves the perceived social self-efficacy of the elderly. As expected, Social coherence is positively associated with the global index of personal projects and with personal projects centered on culture and on leisure time. These results confirm that the desire for knowledge of the dynamics and characteristics of society leads to activities aimed to improve personal skills and resources.

Perceived health status is positively correlated with overall Social well-being and Social integration, even if the strength of this latter dimension is not particularly high. A higher correlation has been found between perceived health status and the global index of personal projects; this positive association has been found also between perceived health and personal projects centered on culture, physical activity and civic /social participation. Social well-being is concerning the attitudes and the beliefs toward proximal and distal social contexts; for this reason it requests lesser physical resources to mobilize than personal projects. The ability and the concrete possibility to plan for the future activities and projects on which individuals invest time and energy require a more solid health condition.

The positive correlation that has emerged between perceived health status and personal projects centered on physical activity and non competitive sport suggests that, probably, this area of personal planning pertains to other life-domains of the elderly, or to different motivations, eg. the motivation to maintain health, being the preventive coping strategies a set of behavioral and cognitive processes aimed to identify, in the present, the best actions for avoiding negative outcomes in the near and distant future.

The proactive coping strategies aimed to improve resources and realize personal potentials shows positive correlations with overall Social well-being , Social integration and Social contribution, confirming that they are utilized also in old age with the scope of personal growth and for giving an active and valued contribution to society. As Prezza et al., (1999) noted, older people have lesser resources than young and adult people, so they tend to activate their energy and motivation to projects related to the proximal environment.

Preventive and reflective coping strategies correlate positively with the same dimensions of Social well-being, clearly indicating that in the older people, together

with resource accumulation, personal growth and actualization of potentials (that are expressed with proactive coping), it is “present in mind” the necessity to define actions and plans aimed to reduce the risk of future onset of stressors and critical situations , that could undermine the perceived well-being. This is in line with the results of Ouweand et al., (2006; 2007) about the importance of proactive coping strategies and competencies for the well-being of older adults.

The proactive coping strategies correlate positively with all the dimensions of personal projects; this correlation is higher with the global index of personal projects, family-centered projects and projects on civic and social participation. This indicates that this type of coping could promote the development of individual potentials that are actualized in different spheres of life, as has already been shown in longitudinal studies by Holahan and Chapman (1995; 2002). They indeed pointed out how the psychological construct of purposiveness (that can be compared to that of proactivity) promotes the maintenance of personal projects in old age. Preventive coping strategies show positive correlations, albeit more modest, with three areas of projects: family, leisure time and civic participation. It may be because, being areas that require considerable amount of investment of energy and time, they need good physical conditions that are maintained through actions aimed to reduce future risks.

The reflective coping presents a unique, positive correlation with projects focused on civic and social participation. This could perhaps indicate that the ability to mentally simulate future scenarios will facilitate the construction of ideas, visions of the future society which are then “put to the test” through civic engagement and political support to the community.

13.4 The predictors of overall Social well-being and of global personal projects

Both General Linear Model and Multiple Regression Model have highlighted three fundamental predictors of overall Social well-being, namely the proactive coping, the level of school education, and gender. An interaction effect between gender and level of school education also influences the amount of perceived Social well-being. Previous studies on the relevance of proactive coping strategies (Zambianchi, Ricci Bitti, 2013; Greenglass, 2002) have already shown that the use of these strategies defined such as the ability to improve the resources and agentic intervention on the environment, (processes that are both related to the perceived self-efficacy, Bandura, 1989), influences positively the quality of the relationship between individual and society. This study confirms its relevance for a component of successful aging, the participation to society, as several models on successful aging as posited.

Another predictor of Social well-being is gender, that confirm our hypothesis. Female appear to possess a lower level of Social well-being than males, as the results of previous studies (Keyes and Brim, 2004; Zambianchi, Ricci Bitti, 2012, 2013) have already shown. Being females is positively and significantly associated with low Social well-being.

The level of school education, as hypothesized, influences the level of Social well-being. Having a high level of school education could have “set in motion”, across life span, positive accumulation of advantages that leads, in old age, to a better social quality of life (Hatch, 2005). As in MIDUS Study (Keyes, Brim, 2004), are males with high cultural competencies that present the highest level of Social well-being. Most probably, having had acquired, in youth, a very high level of education (University Degree), has permitted to them, unlike females with equivalent Degree, to spend in the best way their competencies. This has set in motion “positive cascade effects” that have produced, in the long run, valued social roles and economically well paid. Old females,

with equivalent University Degree indeed did not reach the same level the same level of social well-being, as evidenced also by Keyes and Brim (2004). In their study , where they took into account the occupational level (that is a consequence of school education), being male were highly indicative of placing in the highest category of well-being, on a number of dimensions of Social well-being, indicating that males with highest socioeconomic status are more likely to have high level of social well-being. As noted by Keyes and Brim (2004), “social inequalities in health worsen through life, because disadvantages can accumulate and have a compounding effect on health outcomes with time or with the addition of disadvantages statuses” (p.367).

Most probably, our old females with University Degree did not have the same opportunities to spend their cultural competencies due to the educational models that were “prescribed” to them, as principal realization, the roles of mother and family caregiver. The longitudinal studies of Holahan and Chapman (2002) confirmed that older females, despite their high education and high intellectual endowment, did not have the same career path of their peers men.

The two Models that were run (GLM and M. R.M) for the predictors of global index of personal projects in life have identified three significant predictors: the proactive coping strategies, the level of school education and the perceived health status.

Has already been highlighted by Holahan and Chapman (1995; 2002) older people who have developed, across life-span, proactive coping strategies and agentic attitude toward life, privileging an agentivity aimed to the realization of projects and plans, not only they tend to maintain this motivational energy in old age, but they tend to age better than those who did not adopt this proactivity style of coping. On the other side, Kahana et al., (2003) in their studies on proactive adaptations, have confirmed the beneficial role of these competencies for aging successfully. Kahana et al., (2012) in a study on a

sample of 1000 community-dwelling older adults have highlighted that, while internal and external resources that accumulated over life directly influenced well-being outcomes, these resources also worked through proactive adaptations. In considering the relative importance of specific proactive adaptations, general planning for the future and marshalling support were shown to be the strongest predictors.

The end of the career path and the subsequent retirement reduce dramatically the opportunity to fulfill two basic social needs, the confirmation need and the status need. The older people can find a new fulfillment in the accomplishment of personal projects focused on family, cultural personal enrichment, civic and social participation (eg. volunteering), that are facilitated by the use of proactive coping strategies.

The perceived health status, as hypothesized, represents an essential prerequisite for future planning, since it requests, more than for Social well-being, high level of physical fitness. But, as pointed out by cluster analysis, there are older people who, despite the declared critical health condition, are able to maintain a satisfactory level of planning for the future. This result (that is discussed in the following paragraph) deserves future studies, in order to clearer identify those elderly that maintain an high level of positive functioning despite adversities. Very few studies, indeed, have analyzed in depth the phenomenon of resilience in old age, but it may constitute an important, promising area of research.

13.5 Different profiles of functioning in older adults

As stated by Magnusson (1995), a complementary perspective of inquiry on human functioning is represented by the so called “person-centered approach”, that identify different sub-groups of functioning across domains. Our study as identify three clusters that correspond to different profiles of functioning. Those of the elderly who belong to the first cluster, labeled “the successful agers”, are characterized by an high profile of

functioning across all domains that were included. They possess an high level of social well-being, have many personal projects that they would like to realize in their future life, use proactive coping strategies for accumulating resources, realizing goals and projects and actualize their potentials. They declare a good perceived health status and are prevailingly in the Third age. This cluster may represent the “successful agers “ of the systemic model of Rowe and Khan (1987; 1997), since they have a good physical condition (high level of physical functioning), a good social life and social involvement, and agentic disposition toward the environment.

The second cluster, shows an interesting, but unexpected, result. This group of older people is characterized by a medium level of overall Social well-being, a medium level of planning for the future in order to realize personal projects, but a very poor health. They, however, use frequently the proactive coping strategies. This cluster was defined as “the resilient agers” since the older people that belong to it show the capacity to overcome negative or critical health conditions (even if the use of a single item request the utmost interpretative caution) through competencies as effective coping strategies, that lead to the maintenance of a satisfactory social and personal quality of life. As stated by Staudiger et al., (2000), the concept of resilience, that was originally developed in the field of developmental psychopathology in childhood and adolescence (Garmezy, 1991), may be of interest for explaining several outcomes also in old age. Being able to maintain a high quality of life and satisfaction in life, or to recovery from critical setbacks or losses (eg. the loss of a loved one, the recovery after a serious disease) can identify as hallmarks of resilience in old age (Ong et al., 2009; Zambianchi, Ricci Bitti, 2013).

The proactive coping strategies seem to act as promoting and protecting factors in spite of adversities, as highlighted by their high level score in this cluster, where we also

found several individuals in the Fourth age. This agentic attitude toward life could protect the elderly against negative outcome in critical situations through the strength of resources devoted to personal realization and social involvement. This hypothesis, that must be verified in the future through longitudinal research design, is in line with results found by Holahan and Chapman on the longitudinal predictors of active social participation in older people. Our results highlight the relevance of personal strategies for the phenomenon of resilience, an issue that is argued by several authors (Olsson, 2003; Zambianchi, 2013). This results moreover support the findings of Ouweand et al., (2007) and of Kahana et al., (2012) about the relevance of proactive strategies for successful aging.

The third cluster, instead shows the worse profile of functioning, compared to the other two clusters. Those who belong to it evidence a low level of overall Social well-being, a low level of personal projects and scarce utilization of proactive coping strategies. This group of agers can be defined as “usual agers”, having small-medium declines in all areas of functioning, (Rowe, Khan, 1997). They constitute, however, a group of at *risk elderly*, being the social resources, the social involvement, and personal planning for the future central features of positive functioning in old age.

In a 5 wave longitudinal study, indeed Liang et al., (2003) identify three major trajectories of functional change: minimal functional decrement, that authors compared to the conception of “successful aging” by Rowe and Khan; late onset of functional impairment, that appears to correspond to the concept of “usual aging”, where the older adults experience a gradual shift and decline in overall functioning that accelerates after 80 years. A third trajectory, the “early onset of functional impairment” seems to map pathological aging, in that a number of significant risk factors have been identified. This very important study, however, did not take into account the skills and the strategies

utilized by older people to counterbalance shift and decline in the different functional spheres. Our study, where cluster analysis has identified a substantial group of elderly that maintain a satisfactory level of life quality despite bad health, has taken into account a set of active coping strategies that people can utilize for dealing with adversities and personal growth. The gain-loss model of Baltes and Baltes (1990) paid attention to the strategies that people can utilize in order to reduce declines, and they identify three strategies, the Selection, the Optimization and the Compensation (SOC) as functional strategies in old age. On the other side, Ouwehand et al., (2007), recognizing the relevance of SOC strategies for successful aging, suggest to take into account also other active strategies, among which are the proactive coping strategies.

General discussion and Conclusion

The study has analyzed the role of proactive coping strategies for two features of positive aging, namely the social well-being and the presence of personal projects in life. It also has taken into account several structural variables such as gender and level of education, together with the perceived health status. The results confirm the relevance of proactive coping strategies for social well-being and for the level of personal planning for the future in several life domains. A limit of this research is constituted by its cross-sectional nature, that do not allows to draw conclusions about the influence of these strategies on social well-being and personal planning. Future longitudinal studies will be able to verify these hypothesis. Another important limit is related to the use of a single-item for assessing the health status. But, despite these important limitations, the results highlight the relevance of these agentic strategies in old age.

As evidenced by Ouwehand et al., (2007), proactive coping strategies can constitute an important, additional set of strategy to others yet analyzed by researchers (Baltes, Baltes, 1990), not only for

psychological well-being, but also for social well-being, another key feature of successful aging. In the future, they could be studied in their relations with the phenomena of resilience, a new but important area of study in aging processes. Having Bode et al., (2008) demonstrated that proactive competencies can be improved through specific training, this data, if confirmed, can open a new path of intervention for the promotion of overall well-being among the older people.

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Appendix

Questionnaire on personal projects in life

Factor Analysis: item loadings and explained variance

Family projects	-0.648
Culture projects	-0.757
Leisure time projects	-0.721
Physical activity projects	-0.347
Civic and social participation projects	-0.568
Expl. Variance	1.96
Prp. Totl.	0.39