

**Ursina  
Teuscher**

**Transition to Retirement and Aging  
Change and Persistence of Personal Identities**

L<sup>A</sup>T<sub>E</sub>X Typesetting.

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ursina@teuscher.ch  
<http://www.teuscher.ch/ursina>

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Le Doyen R. Friedli.

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The acknowledgments are the most important part of a book; even reviewers read the acknowledgments.

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*Source unknown*

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# Abstract

This doctoral thesis deals with the question of how self-images change when people are getting into the age of retirement. Two main issues are addressed regarding the development of personal identities in that life stage: (1) The content of identity: the question if and how retired people have a different way of defining or characterizing themselves than employed people. (2) The age identity (subjective age): the question of how old people feel, and what predictors and implications can be found for a younger or older age identity.

**Method:** These issues have been addressed first with a preliminary inquiry where 13 persons aged 55-67 were interviewed face-to-face with open questions. Based on a qualitative analysis of the interviews, a standardized questionnaire was developed and sent to a random sample of 2000 citizens of Thun (Switzerland) aged 58-70. 792 persons participated in the survey.

**Results:** (1) Identity content: The profession remained important for the participants' self-description after retirement and was not replaced by a new identity as being retired. In general, the retired persons estimated more domains of self-description as important than did the not yet retired persons, which means that the identity diversity was higher for the retired than for the not yet retired persons. In addition, high identity diversity correlated with a high satisfaction across different life domains. This finding has important implications for psychological theories of older adults' development, disproving strongly the view that disengagement be inherent to successful or even to normal aging.

(2) Age Identity: A measurement model of subjective age was assessed and proved to have very good fit indices and a one-dimensional structure. Furthermore, it was shown that the general tendency to feel younger than one's real age implies a motivational component and can therefore probably be seen as a special case of self-enhancement. This finding provides a possible theoretical framework for further research. To explore the relationships between various predictors and subjective age, a predictive structural model of subjective age was developed, including aspects of personality, behavior and body.



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# Introduction

This work approaches the question of identity changes during older adulthood. Retirement seems to be a crucial moment in the process of growing older since it is generally viewed as a point in time where older age begins. Retirees are often referred to as the “young old”, a term that shows some of the uncertainty of those people’s age identity. They often do not feel old, but nevertheless find themselves suddenly belonging to the category of the “elderly”. Furthermore, the profession provides a very strong identity throughout our working time. The question arises of what happens to that vocational identity once the profession is not practiced anymore.

The thesis addresses two major issues regarding the development of personal identities in that life stage:

1. *Identity contents*: This issue enfold the question if and how retired persons have a different way of defining or characterizing themselves than employed persons.

The present thesis made several contributions to this topic:

- (a) The role of the professional identity after retirement was illuminated, that is, the question if the profession remains important for retired persons, and what factors are linked to a stronger or weaker professional identity.
- (b) The concept of identity diversity was introduced and contrasted to theories of aging. Since the disengagement theory (Cummings & Henry, 1961) and the self-complexity theory (Linville, 1985; 1987) lead to competing predictions in this respect, this study verified to what extent a high identity diversity has positive or negative implications on older adults.
- (c) As little is known yet about the effects of retirement or aging on the personal identity, some issues were approached in an explorative way: the question which identity-domains are getting more

or less important after retirement, or to what extent the age makes a difference on the importance of identity-domains.

- (d) A further explorative question concerned the self-perception of changes, that is, what kind of changes people experience about themselves in the course of older adulthood. This question was approached in a qualitative analysis.

## 2. *Age identity* (also: subjective age):

The construct of subjective age (which is determined by how old a person *feels*) has been used especially in marketing psychology since the 1970's, where it can be used to distinguish different consumer groups, the subjectively younger persons being supposed to consume more actively than those who feel old. In most previous studies, subjective age was measured by a scale comprising four aspects of subjective age, which was developed by Kastenbaum, Derbin, Sabatini, and Artt (1972), and further evolved by Barak (1987). The model is supposed to be four-dimensional; however, this assumption was never empirically verified.

Previous studies found consistently that most older adults feel considerably younger than their real age, but there is still a lack of theoretical explanations for this phenomenon.

The following contributions were made by this thesis to the research field of age identity:

- (a) Kastenbaum et al.'s (1972) model of subjective age was evaluated with two regards: its applicability as a scale was assessed, and the so far unquestioned assumption that the model consist of four dimensions was challenged.
- (b) Two theoretical approaches were introduced and contrasted with regard to their appropriateness to explain the subjective age bias: (1) a motivational approach assuming that the age-underestimation is a special form of self-enhancement (since feeling young is generally considered as positive), and (2) an information-processing approach assuming that people compare themselves to an inner age-image when they rate their own subjective age. Since elderly people look younger nowadays than in former times, this prototype does not correspond to reality anymore, which leads to an underestimation of the own age. Several competing predictions were deduced from the two approaches and tested empirically.

- (c) The previous findings about correlations of subjective age with other variables were integrated into a predictive model, which was compared with the empirical data by means of structural equation modeling.

The following methods were applied to address these issues: A preliminary inquiry was conducted where 13 persons aged 55-67 were interviewed face-to-face with open questions. Based on a qualitative analysis of the interviews, a standardized questionnaire was developed and sent to a random sample of 2000 citizens of Thun (Switzerland) aged 58-70. 792 persons participated in the survey.

The thesis is organized in the following way:

The first three chapters will address the research question from a theoretical point of view, giving a literature overview to several relevant subject-matters:

The first chapter will give an introduction into different approaches of research on self and identity. A historical background will be provided, giving a very brief overview over some of the philosophical questions concerning self and identity. Based on the research of Ramachandran and Blakeslee (1999), neurological considerations about the self will then be presented. Further, some cognitive aspects of the self will be addressed—the focus being laid on the question of how self-knowledge is represented in our minds. The chapter will conclude with a presentation and discussion of several approaches of social identity theories.

The second chapter will address the development of self and identity in later adulthood. Four theoretical approaches of older adults' development will be discussed, and an overview of previous research on age identity will be given.

In the third chapter the topic of identity and roles will be faced under the perspective of retirement. After pointing out some definition problems of retirement, several kinds of predictors for a successful adaptation to retirement will be discussed. Then two models of role exit will be elaborated: A model developed by Ebaugh (1988) and an expansion of this model by Ashforth (2001).

In the fourth and fifth chapter, an empirical analysis will be presented regarding the two aspects of identity development during the transition to retirement—identity contents and age identity:

The fourth chapter will address the issue of *identity contents*, that is the development of *self-definition domains* during the transition to retirement. A special focus will be placed on one hand on the development of the re-

spondents' professional identity after retirement and their self-definition as retirees, on the other hand on the question how identity diversity is linked to life satisfaction for retired persons; further some explorative issues will be addressed. In a first step, the most important theoretical framework will be presented and hypotheses will be derived. Afterwards, the method will be described, followed by a presentation and discussion of the results. Since different research questions are treated in this part, and in order to ensure a stringent and easily readable structure, a large part of the discussion was included seamlessly into the presentation of the results. A concluding discussion will be provided at the end of the chapter.

The fifth chapter will deal with *age identity*, where three major issues will be addressed: a measurement model of subjective age will be evaluated, two theoretical approaches to explain the subjective age bias will be introduced and empirically assessed, and a predictive structural model of subjective age will be developed. The structure of the chapter will be the same as above: beginning with an introduction of the theoretical background and deduction of research questions and hypotheses, followed by a description of the method and a presentation and discussion of the results.

The book will be concluded with a final general discussion.

# Chapter 1

## Concepts of Self and Identity

The Gödelian strange loop that arises in formal systems in mathematics (...) is a loop that allows such a system to “perceive itself”, to talk about itself, to become “self-aware”, and in a sense it would not be too far to say that by virtue of having such a loop, a formal system *acquires a self*.

---

*Douglas R. Hofstadter (1999)*  
Gödel, Escher, Bach: an Eternal  
Golden Braid

### 1.1 Models of the Self in Philosophy and Psychology: Historical Background

“Let us begin with the Self in its widest acceptance, and follow it up to its most delicate and subtle form, advancing from the study of the empirical, as the Germans call it, to that of the pure, Ego” (James, 1980, p. 291).

**T**he question of the nature of the “Self” has absorbed mankind for thousands of years. I will in this chapter describe one of the main problems of personal identity and consider several approaches how the problem of personal identity was addressed by philosophy and early psychology. Parts of

this analysis are based on a comparing discussion by Brown (1998) and a philosophical debate by Cohen (2002).

### 1.1.1 The Problem of Personal Identity—Greek Origins of Dualism

The problem of personal identity refers to the question of what it is that binds together our perceptions and thoughts (what we refer to as “I”), and what the nature is of this “I” that appears to unite our sensations.

One of the earliest discussions on the nature of identity can be found with Greek Philosophers. Plato reports the following puzzling doctrine from Heraclitus (Cratylus 402A, as cited in Cohen, 2002):

Heraclitus, you know, says that everything moves on and that nothing is at rest; and, comparing existing things to the flow of a river, he says that you could not step into the same river twice.

The idea is this: since the composition of the river changes from one moment to the next, it is not the same (numerically the same) river for any length of time at all. Plato thinks that Heraclitus uses the river as an example of what he takes to be a general condition: everything is like a river in this respect. That is, nothing retains its identity for any time at all. That is: there are no persisting objects.

Another puzzle that points out one of the main problems of self and identity is the “ship of Theseus”. This is a puzzle that has been around since antiquity, probably later than Heraclitus, but not much later. It first surfaces in print in Plutarch (*Vita Thesei*, 22-23, as cited in Cohen, 2002).

The original puzzle is this: over the years, the Athenians replaced each plank in the original ship of Theseus as it decayed, thereby keeping it in good repair. Eventually, there was not a single plank left of the original ship. So, did the Athenians still have one and the same ship that used to belong to Theseus?

On this basic question, we can develop other thought experiments, like: what if somebody collects all the planks of the original ship and rebuilds a ship, maybe in a slightly different form, which one would we consider to be the ship of Theseus?

The point of these stories is that the physical properties of an entity are neither sufficient nor necessary to establish its identity. The Greek philoso-



pher Aristotle recognized this point when he distinguished between the substance of an object and its form. The substance of an object is its matter—the material of which it is made. Its form is abstract and immaterial. For example, the substance of a bronze statue (its matter) is bronze; statue is its form. If we melted the bronze and made some other object with it, we would no longer have the same object, even though the substance is still the same.

The same is true, according to Aristotle, for a person. The essence of a person is not the person's physical substance, but the person's form, which Aristotle referred to as the person's soul.

Aristotle's view of the soul as an immaterial entity that unites the person's various perceptions and sensations persisted for over 2000 years. It was adopted by the scholastic philosophers of the Middle Ages (e.g., Augustine, Aquinas) and later for example by Descartes or Hobbes.

This view is also called *dualism* because it postulates the existence of two entities: the body and the mind (or soul), or more generally: the material and the immaterial.

### 1.1.2 Locke: Identity is Memory

The British Philosopher John Locke (1603–1704) made a distinction between man and person, reminiscent of Aristotle's distinction between substance and form: man is substance, person is form. Locke's reference to thought "across time and space" establishes that the criterion for *personhood* is an ability to remember our various perceptions in the prior situations of our lives. For Locke, then, the identity of a person is tied to memory; it extends as far back in time as the person has memories.

By treating identity in terms of memory, Locke moved the study of self from the spiritual to the empirical. At the same time, his departure from the dualist tradition was incomplete. He assumed that our memories inhere in an immaterial substance. Although he believed we could never know what this immaterial substance was like, he was sure it existed.

### 1.1.3 Hume: Identity is a Fiction

Locke's ideas were subsequently extended and modified by the Scottish Philosopher David Hume (1711–1776). As had Locke, Hume assumed that the subjective unity of the self derives from memory: We remember having particular perceptions and thus perceive a unified entity as having those perceptions. Hume disagreed with Locke, however, as to whether these perceptions were joined in any fashion other than a psychological, subjective one. He did not believe they were. He did not believe there was

an immaterial substance that was bearer of this unity. Instead, he believed that all that existed were isolated perceptions. We perceive them as joined, but this perception is a fiction; the isolated perceptions themselves are not joined in any real fashion. Hume's basis for reaching this conclusion is that he cannot find any such substance or unity in himself. He suggests that our notions of personal identity derive from the fact that our thoughts follow one another so rapidly that we confuse temporal contiguity with unity. Thus, for Hume, the identity which we ascribe to the mind of humans is only a fictitious one.

#### 1.1.4 William James' Framework and Definition of the Self

The work of the prominent American pragmatist William James (1890) was the beginning of systematic and empiric investigation of the self. He wrote extensively on the topic and developed his definition of self in chapter 10 of his publication *The Principles of Psychology (1890)*.

James approached the problem of personal identity on the background of the above presented theorists:

Ever since Hume's time, it has been justly regarded as the most puzzling puzzle with which psychology has to deal; and whatever view one may espouse, one has to hold his position against heavy odds. If, with the Spiritualists, one contend for a substantial soul, or transcendental principle of unity, one can give no positive account of what that may be. And if, with the Humians, one deny such a principle and say that the stream of passing thoughts is all, one runs against the entire common-sense of mankind, of which the belief in a distinct principle of selfhood seems an integral part (James, 1890, p. 330).

James attempts to solve this enigma by staking out a middle ground between these various positions. He disagrees with those who postulate the existence of an immaterial substance in which our perceptions inhere, but he also disagrees with those who claim that there is no tie binding these perceptions. Instead, his position is that there is a unity to the self, provided by the thoughts and perceptions themselves and the feelings associated with them. This unity of the self can be explained entirely in psychological terms. Each successive thought is joined with previous thoughts by virtue of the feeling they share. Personal identity is therefore, according to James, our

uninterrupted memory for prior perceptions and our memory or the affect associated with them.

James (1890) used the term “the empirical self” to refer to all of the various ways people think about themselves. He used three subcategories into which he grouped the various components of the empirical self: (1) the material self, (2) the social self, and (3) the spiritual self.

### 1. The Material Self

The material self refers to tangible objects, people, or places that carry the designation *my* or *mine*. Two subclasses of the material self can be distinguished. These are the *bodily* self and the *extra-corporeal* self (beyond the body).

The bodily component of the material self requires little explanation. A person speaks of “my arm” or “my leg”, and our body and parts of our body are clearly an intimate part of who we are. The extra-corporeal self extends to include other people (*my children*), pets (*my cat*), possessions (*my house*), places (*my hometown*), and the products of our work and our ambitions (*my painting*). It is not the physical entities, however, that comprise the material self, but rather our psychological ownership of them (Scheibe, 1985, as cited in Brown, 1998). For example, a person may have a favorite chair she likes to sit in. The chair itself is not part of the self. Instead, it is the sense of an appropriation represented by the phrase “my favorite chair”. This is what we mean when we talk about the extended self; it includes all of the people, places, and things that are psychologically part of who we are.

Prior to the time James wrote his book, psychological research was restricted to the physical self (cf. Brown, 1998). But James wanted to expand the study of self to include nonphysical aspects of the person. He believed that the self encompassed more than our physical bodies and has a fluid character. Given this fluidity, how can we tell whether an entity can be considered a part of the self?

James suggested that we could make this determination by examining our emotional investment in the entity. If we respond in an emotional way when the entity is praised or attacked, the entity is likely to be part of the self. We feel not only emotionally attached to our own body, but also our property, family, friends and so on, all of which are becoming thus a part of our empirical selves.

Another way to determine whether something is part of the extended self is according to James to see how we act toward it. If we pay a lot

of attention to it and invest a lot to improve or maintain it, we can infer that the entity is part of the self. We have an impulse to watch over our body, to clothe it favorably, to cherish our parents, partners and children, and to find ourselves a home of our own which we may live in and enhance. An equally instinctive impulse drives us to collect property. Those collections become, with different degrees of intimacy, parts of our empirical selves. The parts of our possession that are most intimately ours are often those in which we have invested most.

James (1890) suggests further that our depression at the loss of possessions is only partly due to our feeling that we must now renounce at certain advantages directly connected to the possessions. More important than this is, according to James, a sense of the “shrinkage of our personality, a partial conversion of ourselves to nothingness, which is a psychological phenomenon by itself” (James, 1890, p. 293).

So we do not value our possessions simply for what they provide, but also because they have become a part of us. (Note that we usually tend to assume that the causal influence goes into the other direction: we gather things – that is make them a part of our selves – *because* those entities are valuable, we do not think that we value it because it is ours.) For example, children often are avid collectors, they gather and treasure shells, rocks, screws, and so forth. The material value of those things is often negligible, but they represent important aspects of self. The tendency to treat possessions as part of the self might also explain why so many people have difficulties discarding of old clothes or other possessions that have long outlived their usefulness.

There are at least two functions of the extension of the self on possessions (cf. Belk, 1988; Brown, 1998):

- (a) Possessions serve a symbolic function, they help people to define themselves. The clothes we wear, the cars we drive, and the manner in which we adorn our homes and offices signal to ourselves and others who we think we are and how we wish to be regarded.
- (b) Possessions also extend the self in time. Most people take steps to ensure that their letters, photographs, possessions, and mementos are distributed to others at the time of their death. Besides the desire to hand down to others the utilitarian value of these things, this dispersal might also have the function of giving people the feeling of coming a bit closer to immortality by passing their possessions on to the next generation.

## 2. The Social Self

The second category in James's scheme is the social self. The social self refers to how we are regarded and recognized by others. A person has as many social selves as there are individuals who recognize the person and carry an image of him or her in their mind. Or, since the individuals who carry the images fall naturally into classes, we may, according to James, practically say that a person has as many social selves as there are distinct groups of persons about whose opinion he cares.

Deaux, Reid, Mizrahi, and Ethier (1995) elaborated James' categorization and suggested a further distinction between five types of social identities:

- (a) personal relationships (e. g., wife, father)
- (b) ethnic group or religion (e. g., Asian-American, Muslim)
- (c) political affiliations (e.g., Republican, pacifist)
- (d) stigmatized group (e. g., criminal, drug-addict)
- (e) vocation, avocations and employment status (e. g., teacher, artist, retiree)

Some of these identities are *ascribed*: these are identities that we are born with. They are imposed on us irreversibly and without our contribution. Examples for ascribed identities are the ethnic group, or also some personal relationships like "son" or "daughter".

Other identities are *attained*: these are identities that we acquire in life, for example our profession or political affiliations.

Each of these social identities is accompanied by a specific set of expectations and behaviors. We act differently in the role of "wife" than in the role of "teacher". This results, according to James, in what practically is a division of a person into several selves. This may sometimes be a discordant splitting, like where we are afraid to let one set of acquaintances know us as we are elsewhere; but it may also be a perfectly harmonious division of labor, like where someone is tender to his wife (in his role of husband) and strict to his pupils (in his professional role as teacher).

James made an additional point about these social selves: he suggested an instinctive drive to be noticed and recognized by others. His assumption was that we affiliate not simply because we like company, but also

because we crave recognition and status. Thus, a person's social self is the recognition he gets from his friends, family, and other relevant persons.

James believed that our social roles are one important aspect, but that they are by no means the sole aspect of self nor the most important. Rather, he contended that there is a common sense of self that runs through all the various social identities.

### 3. The Spiritual Self

James called the third category of the empirical self the spiritual self.

The spiritual self is our *inner* self or our *psychological* self, this means our subjective being, our psychic faculties or dispositions. Our perceived abilities, attitudes, emotions, interests, motives, opinions, traits, and wishes are all part of the spiritual self. It is comprised of everything we call *my* or *mine* that is not a tangible object, person, or place, or a social role.

In short, the spiritual self refers to my perceived inner psychological qualities. It represents my subjective experience of myself—how it feels to be “me”.

These psychic dispositions are according to James the most enduring and intimate part of the self, the part which we most truly seem to be. James assumes that we take a purer self-satisfaction when we think for example of our ability to argue and discriminate, of our moral sensibility and conscience, or of our powerful will, than when we think about any of our other possessions.

It is of interest to note the close connection between our possessions (which are aspects of the material self) and our emotions, attitudes, and beliefs (which are components of the spiritual self). As Abelson (1986, as cited in Brown, 1998) observed, this similarity is captured in our language. A person is said to *have* a belief, from the time the belief is first *acquired*, to the time it is *discarded* or *lost*. We also use to say things like “I *inherited* a view” or “I can’t *buy* that!”. Finally, we speak of people who have *abandoned* their convictions or *disowned* an earlier position. These terms imply that possessions and attitudes share an underlying conceptual property: They are both owned by the self.

## 1.2 Neurological Considerations about the Self

Ramachandran and Blakeslee (1999) have looked at the concept of “self” from a neurological perspective, trying to identify brain regions or functions that are responsible for different aspects of our experience of self and identity. They do not claim to have found a definition for the self, but have worked out a list of *characteristics* that define the self:

### 1. The Embodied Self

The self is anchored within a single body. If we close our eyes, we have a vivid sense of different body parts occupying space - the so-called body image. If you pinch a person’s toe, it is that person’s self, not just his or her toe, that experiences the pain. Indeed, the “loyalty” of our self to our body is so axiomatic that we do not even question it.

However, Ramachandran and Blakeslee (1999) showed that our body image is extremely malleable, despite all its appearance of stability. They argue that our brain temporarily constructs our own body image purely for convenience, and they propose a few experiments to the reader to demonstrate how our body image can be altered profoundly in just a few seconds. In one of the examples, you stroke and tap (in an irregular rhythmic sequence) the nose of a person sitting in front of you, facing the same direction, while a third person taps your own nose in exactly the same rhythm and timing. After about half a minute, you may develop the uncanny illusion that you are touching your own nose that has been dislocated and stretched out about three feet in front of your face. The more random and unpredictable the stroking sequence, the more striking the illusion will be.

Another illusion requires a dummy rubber hand which you place between you and a cardboard that you set like a wall in front of you. You place your own hand in the same position like the rubber hand, but behind the cardboard so you cannot see it. Then another person strokes and taps in the same irregular, but perfectly synchronous way both your hand behind the cardboard and the rubber hand that you are watching. Within seconds you will experience the stroking sensation as arising from the dummy hand. In both experiments, the sheer statistical improbability of the two sequences of strokes and taps leads the brain to adopt a different body image although your conscious brain knows perfectly that this is absurd.

Circuits in the parietal lobes and the regions of the frontal lobes to which they project are involved in constructing our body image. Partial damage to these structures can cause gross distortions in body image. There was for instance such a patient who claimed that her left arm belonged to her mother, or another who said that the left half of her body was still sitting in her chair when she got up and walked.

Ramachandran and Blakeslee (1999) conclude from this evidence that our body image is an entirely transitory construct, despite its appearance of durability, and despite our assuming that our “self” is anchored to a single body that remains stable and permanent at least until death.

## 2. The Passionate Self

The emotions—mediated by the limbic system and amygdala—enable us to see the meaning and significance of things and to apprehend their implications. Thus they are an essential aspect of self, not just a “bonus”. The amygdala and the rest of the limbic system (in the temporal lobes) ensure that the cortex serves the organism’s basic evolutionary goals. The amygdala monitors the highest levels of perceptual representations and “has it’s fingers on the keyboard of the autonomic nervous system” (Ramachandran and Blakeslee, 1999, p. 248), it determines whether or not to respond emotionally to something and what kinds of emotions are appropriate. It also receives information from the insular cortex, which in turn is driven partially by sensory input not only from the skin but also from the viscera (heart, lung, liver, stomach), so that one can also speak of a visceral, “vegetative self” or of a “gut reaction” to something.

Pathologies of the emotional self include temporal lobe epilepsy, Capgras’ syndrome and Cotard’s syndrome. In the temporal epilepsy, there may be a heightened sense of self that may arise partly through a process called “hyperconnectivity”—a strengthening of connections between the sensory areas of the temporal cortex and the amygdala. Such hyperconnectivity may result from repeated seizures that cause a permanent enhancement (kindling) of these pathways, leading the patient to ascribe deep significance to everything around him, including himself. Conversely, people with Capgras’ syndrome have reduced emotional response to certain categories of objects, namely faces. People with Cotard’s syndrome (nihilistic delusional disorder) have more pervasive problems with emotion, feeling so emotionally remote from the world and from themselves that they believe for example that their friends, family, possessions, the whole world, or even parts of their



body do not exist. A Cotard's patient can actually make the absurd claim that he is dead or that he can smell his flesh rotting.

Interestingly, what we call "personality"—a vital aspect of your self that endures for life and is notoriously impervious to "correction" by other people or even by common sense—probably also involves the very same limbic structures and their connections with the ventromedial frontal lobes. Damage to the frontal lobes produces no obvious, immediate disturbance in consciousness, but it can profoundly alter the personality. Ramachandran and Blakeslee (1999) report the example of a railway worker whose frontal lobes were pierced by a crowbar in an accident, and who was transformed from a stable, polite, hardworking young man into a lying, cheating vagabond who could not hold down a job.

### 3. The Executive Self

Classical physics and modern neuroscience tell us that we inhabit a deterministic billiard ball universe. However, people do not experience themselves as puppets on a string, but have the feeling that they are in charge and have a free will to decide over their own actions. Indeed, a "self" that sees itself as completely passive, as a helpless spectator, is no self at all, and a self that is hopelessly driven to action by its impulses and urgings is equally effete. A self needs free will even to exist. More technically, conscious awareness can be described as a "conditional readiness to act" (Ramachandran and Blakeslee, 1999, p. 249)

To achieve all this, we need to have in our brains not only a representation of the world and various objects in it but also a representation of ourselves, including our own body within that representation (—and it is this peculiar recursive aspect of the self that makes it so puzzling). The representation of the external self has to interact in addition with our self-representation (including the motor command system) in order to allow us to make a choice. Derangements in this mechanism can lead to syndromes like anosognosia or somatoparaphrenia, in which a patient will with a perfectly straight face claim that parts of his or her body belong to another person.

What neural structure is involved in representing these "embodied" and "executive" aspects of the self? Damage to the anterior cingulate gyrus results in a bizarre condition called "akineti mutism"—the patient simply lies in bed unwilling to do or incapable of doing anything even though he appears to be fully aware of his surroundings. This is probably as close as one can get to witness an absence of free will.

Sometimes when there is partial damage to the anterior cingulate, the very opposite happens: the patient's hand is uncoupled from his or her conscious thoughts and intentions and attempts to grab things or even perform relatively complex actions without his or her permission. Ramachandran and Blakeslee (1999) give the example of a patient whose left hand seized the banister as she walked down the steps and she had to use her other hand forcibly to unclench the fingers one by one, so she could continue walking.

#### 4. The Mnemonic Self

Our sense of personal identity—as a single person who endures through space and time—depends on a long string of highly personal recollections: the autobiography. Organizing these memories into a coherent story is obviously crucial to the construction of self.

The hippocampus is required for acquiring and consolidating new memory traces. If a man lost his hippocampi ten years ago, he will not have any memories of events that occurred after that date. He is still fully conscious, because he has all the memories prior to that loss, but he can not store any new memories, so that in a very real sense his existence was frozen at the time of the lesion.

Patients with temporal lobe epilepsy sometimes develop a tendency to maintain elaborate diaries that record quotidian events in circumstantial detail—a trait called hypergraphia. This trait goes often together with a so-called “temporal-lobe-personality”: the patients have heightened emotions, see cosmic significance in trivial events, and tend to be humorless and self-important, and are obsessively preoccupied with philosophical and theological issues. Ramachandran and Blakeslee (1999) suggest that kindling in the amygdala causes every external event and internal belief to acquire deep significance for the patient, so that there is an enormous proliferation of spuriously self-relevant beliefs and memories in his brain.

Profound derangement in the mnemonic self can lead to multiple personality disorder or MPD. In this syndrome, a person can assume two or more distinct personalities, each of which is completely unaware, or only dimly aware, of the others. There have been occasional reports in the clinical literature that one person can be diabetic or allergic to a substance while the other is not, or that various vital signs and hormone profiles can be different in the two personalities. There are even cases where one personality can be myopic or nearsighted whereas the other has perfect vision (Birnbaum & Chiarello, 1996; Miller, 1989). MPD

defies common sense. How can two selves dwell in one body? According to many psychiatrists, some cases of MPD are a consequence of childhood sexual or physical abuse (cf. Ramachandran and Blakeslee, 1999). The child, growing up, finds the abuse so emotionally intolerable that she gradually walls it off into another world. A person who has two sets of mutually incompatible beliefs and memories about him- or herself may have to create two personalities within one body as the only way to prevent anarchy and endless strife.

Given the obvious relevance of this syndrome not only to understanding the nature of self, but also as a valuable testing ground for the claims of mind-body medicine, it is astonishing how little attention it has so far received from mainstream neurology.

#### 5. **The Unified Self—Imposing Coherence on Consciousness, Filling in and Confabulation**

Another important attribute of self is its unity—the internal coherence of its different attributes. I assume that the unifying self is very nearly related to the mnemonic self, both implying a general tendency: the need to create and sustain a coherent world view. But there are also phenomena of imposing coherence that have nothing to do with memory, namely the filling in of the blind spot in our visual field. Ramachandran and Blakeslee (1999) suggest that the executive brain processes responsible for this phenomenon are associated with the limbic system including parts of the anterior cingulate gyrus. This process connects the perceptual experience with specific emotions and goals.

#### 6. **The Vigilant Self**

A vital clue to the neural circuitry underlying consciousness comes from two other neurological disorders—penduncular hallucinosis and “vigilant coma” or akinetic mutism.

The anterior cingulate and other limbic structures also receive projections from the intralaminar thalamic nuclei (cells in the thalamus), which in turn are driven by clusters of cells in the brain stem, including the cholinergic lateral tegmental cells and the pendunculopontine cells. Hyperactivity of these cells can lead to visual hallucinations called penduncular hallucinosis, and it is also known that schizophrenics have a doubling of cell number in these very same brain stem nuclei, which may contribute to their hallucinations.

Conversely, damage to the intralaminar nucleus or to the anterior cingulate results in coma vigilance or akinetic mutism. Patients with this

curious disorder are immobile and mute and react sluggishly, if at all, to painful stimuli. Yet they are apparently wide awake and alert, moving their eyes around and tracking objects.

Clearly these brain stem and thalamic circuits play an important part in consciousness, but it remains to be seen if they play a merely supportive role or whether they are an integral part of the circuitry that embodies consciousness (cf. Ramachandran and Blakeslee, 1999).

## 7. The Conceptual Self and the Social Self

Information in autobiographical memory and information about one's body image need to be accessible to the self-concept, so that thought and talk about self are possible. In the normal brain there are specialized pathways that allow such access to occur, but when one or more of these pathways are damaged, the system tries to do it anyway, and confabulation results. There is for instance a denial syndrome that can sometimes be seen with patients whose left side of the body is paralyzed because of a right hemisphere damage, (e.g., after a stroke). Those patients seem to ignore or even deny the fact that their left arm or leg is paralyzed—even though they are quite mentally lucid in all other respects. This disorder was named *anosognosia* by the French Neurologist Joseph François Babinsky who first observed it clinically in 1908. For those patients, there is no access channel between information about the left side of the body and the patient's self-concept. But the self-concept is set up to try automatically to include that information. The result is that the self “assumes” that the arm is okay and “fills in” the movements of that arm. The main purposes of doing this are to prevent constant indecisiveness and to confer stability on behavior. But another important function may be to support the sort of created or narrative self that we present ourselves as unified in order to achieve social goals and to be understandable to others. We also present ourselves as acknowledging our past and future identity, enabling us to be seen as part of society.

To demonstrate the reality of the social self to skeptics, Ramachandran and Blakeslee (1999) propose the following thought experiment:

“Imagine that there is some act you've committed about which you are extremely embarrassed (love letters and Polaroid photographs from an illicit affair). Assume further that you have a fatal illness and will be dead in two months. If you know that people rummaging through your belongings

will discover your secrets, will you do your utmost to cover sour tracks? If the answer is yes, the question arises, Why bother? After all, you know you won't be around, so what does it matter what people think after you're gone? This simple thought experiment suggests that the idea of the social self is not just an abstract yarn. On the contrary, it is so deeply ingrained in us that we want to protect it even after death. Many a scientist has spent his entire life yearning obsessively for posthumous fame—sacrificing everything else just to leave a tiny scratch-mark on the edifice” (Ramachandran and Blakeslee, 1999, p.254).

There is of course a certain irony to the fact that the self that almost by definition is entirely private is to a significant extent a social construct, a story that we make up for others.

Ramachandran and Blakeslee (1999) suggest that confabulation and self-deception evolved mainly because of the need to impose stability, internal stability and coherence on behavior, but that an added important function might stem from the need to conceal the truth from other people. Some interesting questions arise from this suggestion: Does a patient with denial syndrome deny his paralysis to *himself* as well? Would he do it when nobody was watching? Ramachandran's experiments suggest that he probably would<sup>1</sup>, but maybe the delusion is amplified when others are present. Would his skin register a galvanic response as he confidently asserts that he could arm wrestle? Even though he denies the paralysis, would he be disturbed by the word and register a strong galvanic skin response? Ramachandran tells an anecdote of one his patients who had tried—unsuccessfully, of course, but

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<sup>1</sup>He wanted to find out what happened if the denial patients were rewarded for honesty, so he gave them a choice between a task that could be done with one hand (thread a light bulb into a bare socket) and another task that required the use of two hands (tie a pair of shoelaces). Patients were told that they could earn five dollars for the light bulb, and ten dollars for the shoelaces. Unhandicapped people would naturally go for the shoelaces, but most paralyzed stroke patients—who do *not* suffer from denial—choose the light bulb, knowing their limitations. Remarkably, stroke patients who had denial opted for the shoelace-task every time and spent minutes fiddling unsuccessfully with the laces without showing any signs of frustration. Even when patients were given the same choice ten minutes later they went unhesitatingly for the bimanual task.

In another experiment, Ramachandran tried to “trick” the patients with a spontaneous motor task, telling them to grab a loaded tray. Half-side paralyzed patients who did not suffer from denial put their non-paralyzed hand in the middle under the tray – the center of gravity – whereas patients who denied their left-sided paralysis just put their right hand to the right side of the tray so that it toppled over. (Ramachandran & Blakeslee, 1999).

oblivious of her handicap—to tie a shoelace with one hand. The next day, she told a student that she had “tied it successfully with both my hands”, which would be a very improbable thing to say for any person who *really* did not have the least concern about her hands. This raises the question if some part of her might know perfectly that she is paralyzed, and her strange remark was an attempt to mask this knowledge. Another question is: Would a normal child show a strong galvanic skin reaction when confabulating (children are notoriously prone to such behavior)?

And, as Ramachandran and Blakeslee put it:

“What if a neurologist were to develop anosognosia (the denial syndrome) as the result of a stroke? Would he continue to lecture on this topic to his students—blissfully unaware that he himself was suffering from denial? Indeed, how do I know that I am not such a person? It’s only through raising questions such as these that we can begin to approach the greatest scientific and philosophical riddle of all—the nature of the self” (Ramachandran and Blakeslee, 1999, p. 255).

### 1.3 The Cognitive Representation of Self-Knowledge

Cognitive psychologists assume that the mental representation of knowledge about the self does not differ on principle from the representation of knowledge about other persons and objects, although it is more differentiated and affect-laden. The self-concept can thus be characterized as a dynamic memory system, the structure of which is represented in various models as they have been developed for knowledge representation in general. For an overview see Kihlstrom and Klein (1997), and Linville and Carlston (1994). It contains semantic-abstract knowledge in the sense of generalized properties (like “I am cooperative”) as well as episodic-concrete knowledge referring to specific behavior and events of the past (like “Last year I was on a holiday in Canada”).

Besides propositional, language-related representations there are also assumed to be non-propositional, perception-related forms of representation, like for example the visual notion of one’s own appearance.

There are different models assuming that our knowledge of the world is organized into cognitive structures. One suggestion is that knowledge is

organized in a hierarchical fashion, so that a general concept is positioned at the top of the hierarchy, and more specific knowledge resides at a subordinate status (cf. Brown, 1998).

Figure 1.1 presents in the top half a greatly simplified example of this type of model for the general concept of “animal”. Various kinds of animals are associated with this general heading (e.g., birds, fish, and mammals). Examples of each type of animal occupy a subordinate level, and linked to each of these specific animals are characteristic behavior and attributes.

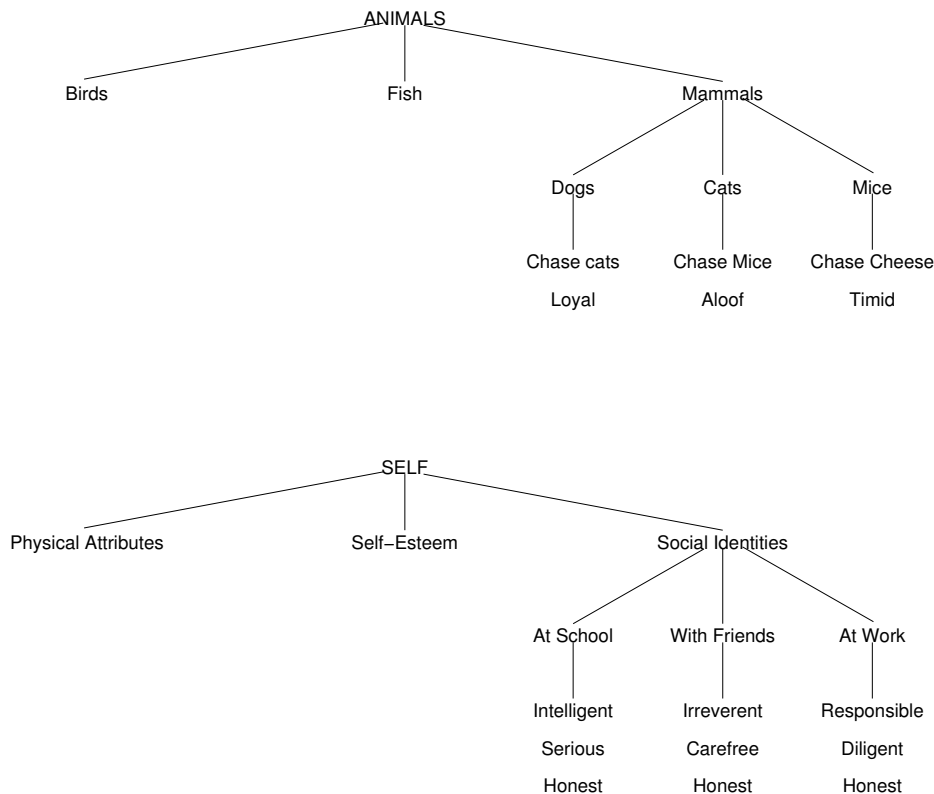


Figure 1.1: Hierarchical knowledge structures for animals and for the self (Brown, 1998, p. 107)

People’s ideas about themselves may be represented in a similar manner (Kihlstrom & Cantor, 1984). The bottom half of figure 1.1 shows such a model (equally simplified). At the top of the hierarchy is the self. Underlying this concept are three examples of more specific headings: physical attributes, self-esteem, and social identities. Under each of the social identities are various characteristics and traits. Although there is disagreement concerning the precise form these structures take, most authors agree that people’s ideas about themselves form a complex and highly organized knowl-

edge structure, and that this structure becomes increasingly differentiated with age as people acquire additional knowledge about themselves. There is also agreement on the general implications of the model (Greenwald & Pratkanis, 1984; Linville & Carlston, 1994; Markus & Wurf, 1987). For example, there is a contextual basis of self-knowledge. How we think of ourselves depends on the social context (James, 1890; Rosenberg & Gara, 1985). A person might think of him- or herself as intelligent at school, loyal with friends, and responsible at work. Also, people have knowledge of themselves that is somewhat contradictory. For example, we might think of ourselves as serious at school, carefree with our friends, and diligent when we are working (cf. Brown, 1998).

### 1.3.1 Self-Complexity

This structural model implies a number of important issues. First, we can ask “How complex is the self-concept?” Does a person think of him- or herself in many different ways or in only a few ways? Linville (1987) introduced the term “self-complexity” to refer to such differences. People who think of themselves in many different ways have a high self-complexity, those who think of themselves in relatively few ways have a low self-complexity.

Linville used a card-sorting task to measure self-complexity. In that task, people are given a number of index cards, each containing a trait term or characteristic (e.g., lazy, outgoing, rebellious). They are then asked to group the cards into piles that describe them in various settings or relationships. The more groups a person forms, and the less overlap there is among groups, the higher is the person’s self-complexity score. Linville (1987) argued that differences in self-complexity affect people’s responses to positive and negative events. The less complex the person’s self-representation, the more extreme the person’s response to positive and negative events. As an example, suppose you are a single-minded lawyer, whose entire life revolves around your law practice. If you win a case, you will feel ecstatic, but if you lose a case, you may feel devastated. According to Linville, this is because you do not have other identities to fall back on. Now consider the situation if you think of yourself in many ways (e.g., as a hardworking lawyer, but also as an understanding friend, a loving spouse, a caring parent, and so on). Under these circumstances, losing a case may not be so devastating, because you have many other identities to help cushion the blow.

Although multiple identities may generally be healthy, there is a point at which highly complex self-concepts may get us into trouble. As William James noted over a century ago, we can not be all the things we would like to be (James, 1890). Often we are confronted by the necessity of holding to



one aspect of our empirical selves and abandoning the rest.

“Not that I would not, if I could, be both handsome and fat and well-dressed, and a great athlete, and make a million a year, be a wit, a bon-vivant, and a lady-killer, as well as a philosopher, a philanthropist, statesman, warrior and African explorer, as well as a tone-poet and saint. But the thing is impossible. The millionaire’s work would run counter to the saint’s; the bon-vivant and the philanthropist would trip each other up; the philosopher and the lady-killer could not keep house in the same tenement of clay (James, 1890, p. 310)”.

The problem is that each additional identity can be a burden as well as a benefit. It depends ultimately on whether these identities fit well with each other (Brown, 1998). Role conflict is a common lament in our society. Men, for instance, are expected to be wage earners, but also good husbands, fathers, educators, athletes, and so forth. These multiple social identities may create conflict. But there may also be a conflict between various *personal* identities. A woman may experience a conflict between a desire to be tough and competitive versus a desire to be caring and tender.

Whether more is better, then, is likely to depend on whether the fit among the various identities is good. Otherwise, too many identities can create as many problems as too few identities (Brown, 1998).

Donahue, Robins, Roberts, and John (1993) investigated this question in a study and showed that multiple identities are indeed not always beneficial. They asked college students to describe themselves in each of five social roles (e.g., “How responsible are you as a student, friend, romantic partner, son or daughter, and worker?”). Then they calculated an index of self-concept differentiation to capture the extent to which students described themselves differently in each role. High self-concept differentiation was associated with depression, neuroticism, and low self-esteem. These findings pose an interesting challenge to Linville’s research of self-complexity. Brown (1998) suggests therefore that multiple identities are beneficial *only* if they are well integrated with one another.

### 1.3.2 Self-Concept Certainty and Importance

The certainty of people’s self-knowledge is another facet of the self-concept (cf. Brown, 1998). The construct of *self-concept clarity* (Campbell, 1990) describes the subjective certainty concerning self-knowledge and the extent to which this self-knowledge is internally consistent and stable across time. The certainty about different attributes of ourselves can vary considerably.

A person can hold some views about herself with great certainty. She may be absolutely sure that she is outgoing, and positive that she is mechanically inclined. Other views of herself may be ill-defined and subject to equivocation. She may for instance not be sure if she is intuitive or not. This issue is important because self-views that are held with great certainty are less likely to change than are self-views about which we are uncertain (cf. Pelham, 1991). There is also evidence that the more certain people are in their self-views, the better they feel about themselves (Baumgardner, 1990; Campbell, 1990).

In addition to considering the certainty of people's self-views, we can also consider their importance. Some of our self-views are particularly central and self-defining; others are peripheral or unimportant. In general, the importance of an identity varies as a function of goal relevance. Identities of high personal importance tend to be the ones that are instrumental to our goals and ambitions; identities of low personal importance tend to be unrelated to our goal and ambitions (Pelham, 1991). For instance, a professional athlete might primarily think of herself in terms of her athleticism and competitive drive, but an artist might think of himself chiefly in terms of his spontaneity and creativity.

People also vary in the importance they attach to their various *social* identities. One person might think of himself principally in terms of his work; another might think of himself primarily in terms of his family. These differences influence people's emotional lives, because they show stronger emotional reactions to outcomes that touch important identities than to outcomes that implicate unimportant ones.

Differences like these also highlight a more general point about the nature of identity (cf. Brown, 1998). It is not only what people think about themselves that is important; crucial is also the meaning people give to each identity element. Even if two people's self-concepts were comprised of exactly the same identities, their self-concepts would still be different if the two persons varied in how certain they were of these identities or in how important these identities were to them.

In order to understand a person's self-concept, we need to know more than what the individual thinks about when he thinks of himself. We need also to know how these conceptions are related and arranged, and what meaning they hold for the individual (cf. Brown, 1998).

### 1.3.3 Self-Schemas

Markus (1977) defined the self-concept as a collection of self schemas that are connected among each other. Schemas are hypothetical knowledge structures

that guide the processing of information. People have schemas about many different things, including other people, social groups, social events, and objects. Schemas represent the structure of an object. Underlying the understanding of schemata is a basic insight that concepts like objects or events are defined by a configuration of attributes. The representation through schemata is a way of comprehending this structure of an object (cf. Anderson, 1980).

For the concept of *house*, for example, we could have the following (incomplete) schema representation, consisting of pairs of attributes and corresponding values:

### HOUSE

**Superordinate concept:** Building

**Material:** Stone

**Contains:** Rooms

**Function:** Human living space

**Form:** Rectangular

**Size:** 50 to 500 square meters

The superordinate concepts indicate one aspect of the hierarchical schema-structure. Another aspect is the *hierarchy of the parts*, since the parts of houses like windows and rooms have their own schema definitions, including for example the knowledge that rooms contain windows and ceilings. Schemata are built in a way as to facilitate us to draw conclusions regarding a concept. If we know that something is a house, we can take the schema definition and deduce that there are probably windows and a roof etc. (although these deductions must not exclude variations and exceptions; we have no problems to understand what a roofless house is, for example).

These schemas influence what information we notice, how we interpret and explain the information we take in, and what we remember, as was shown for example by Brewer and Treyns (1981).

Self-schemas have similar effects. Markus (1977) used the term *self-schema* to refer to those attributes that people regard as particularly self-defining and of which they are highly certain. In the first step of his investigation, Markus (1977) identified people who are *schematic* with respect to their perceived independence, which means that these people think of themselves as very independent or very dependent, and they regard this characteristic

as very important. Other people were identified as being *aschematic* with respect to this dimension. Aschematic people do not think of themselves as very independent or very dependent, and they do not regard this trait as important. In the second part of the study, Markus showed the participants a list of words that related to independence, and they were asked to indicate whether the word described them or not (e.g., “How assertive are you?”). Schematic participants made these judgments faster than did aschematic participants, indicating that being schematic influences the ease with which people process information for that characteristic. Additional findings showed that, in comparison with aschematics, schematic participants remembered more examples from their life when they had acted in an independent or dependent manner, and made more confident predictions regarding their future behavior in this realm.

Self-schemas also influence the way we process social information. People who are schematic for a trait readily accept information that confirms their self-view but actively refute or reject information that runs counter to how they think of themselves. If a person is certain that he is graceful, he will quickly accept feedback that suggests he is agile but he will carefully scrutinize or dismiss feedback that suggests he is ungainly (example by Brown, 1998).

Our perceptions of other people are also affected by self-schemas. For instance, people who are schematic with respect to their own weight are quick to notice other people’s weight and to categorize other people along this dimension (i.e., they classify other people as fat or thin). This tendency reflects a more general inclination to use the self as a reference point when judging others. The more important an attribute is to the way we think about ourselves, the more inclined we are to use that attribute when perceiving others (cf. Dunning & Hayes, 1996).

Finally, self-schemas influence behavior. People who are schematic in a given domain act more consistently than do those who are aschematic (Markus, 1983). For example, compared to people who are aschematic for independence, people who are schematic for this trait are more apt to act consistently in an independent manner across various situations. This may be true even though both aschematics and schematics both regard themselves as independent. The key difference is that people who are schematic for this trait are highly certain of their independence and regard the trait as particularly self-defining. These features account for the greater behavioral consistency schematic individuals display (cf. Brown, 1998; Markus, 1983).

## 1.4 Self-Psychology and Personality

The focus on the way people think and feel about themselves distinguishes self-psychology from other areas of psychology, like for example personality psychology. Self-psychology is concerned with subjective experience—with what people *think* they are like; whereas personality psychology is more concerned with objective experience—with what people *really* are like.

Our picture of the self and our ideas what we are like may not be entirely accurate; they may not capture the way we really are. Personality psychology is concerned with what people are really like<sup>2</sup>. It would not be uncommon, for example, to say of a person that “he *is* an introvert” or that “she *is* conscientious”. These phrases suggest that we are referring to what the person truly is like, not simply what the person thinks he or she is like.

However, it should be noted that the distinction between self-psychology and personality psychology is blurred. Brown (1998) specifies four reasons for this:

1. **What we really are influences the way we *think* about ourselves.** First, aspects of personality affect our thoughts about ourselves. In theory, people are free to think whatever they want about themselves. But in reality, people’s ideas about what they are like are at least loosely tied to objective criteria. People with low intelligence are unlikely to regard themselves as brilliant, and people who are tall are unlikely to think about themselves as small (it can happen, but it is unlikely). Although no one is born with a conception of self as unintelligent or tall, people are born with certain physical and psychological characteristics that influence how they think about themselves. (This is of course not to say that our thoughts about ourselves are identical with what we are actually like. Although our views of ourselves are influenced by how we really are, they are not a faithful representation of our true characteristics. Most people think of themselves in overly positive terms—as somewhat better than they really are.)
2. **What we really are influences the way we *feel* about ourselves.** Another way in which self-psychology and personality psychology are

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<sup>2</sup>I will here not engage in an argument on whether there is such a thing as reality and objectivity, and how we should deal with that problem in cognitive and social science (for a further discussion of that point see e.g., Núñez 1995; 1997). Even if it is never possible to find out what a person really is like, because our view of the reality remains subjective (at best *intersubjective*) it is still the goal of personality psychology to get as close as possible to the—ultimately unreachable—objective view.

related is that some personality variables influence self-esteem. Individuals who score high in the broad personality dimension of Neuroticism are prone to be unhappy and dissatisfied with all aspects of their lives (Costa & McCrae, 1984; McCrae & Costa, 1988) and they are also likely to have a low opinion of themselves. Similarly, individuals high in extraversion bring an optimistic and positive attitude to their evaluation of themselves.

- 3. Self is one aspect of personality.** A third intersection between self-psychology and personality is that people's thoughts and feelings about themselves are one aspect of their personality. For example, some people think of themselves as attractive; others think of themselves as unattractive. Although these thoughts do not tell us whether these people really are attractive or not, it is still the case that they differ with respect to what they think they are like. These individual differences can be treated as personality variables.

We can also distinguish people according to how they feel about themselves, which is the subject of self-esteem research. Self-esteem research divides people into two categories: Those who feel good about themselves are designated as having high self-esteem; those who do not feel as good about themselves are designated as having low self-esteem. In this manner, individual differences in how people feel about themselves are treated as personality variables.

When we treat self-referent thoughts and feelings as individual difference variables, we are treating the self as one aspect of personality. In this sense, personality can be viewed as a broader term that refers to the entire psychological nature of the individual, including the self-concept. Self-referent thoughts and feelings can thus be viewed as a subset of personality.

There are, however, also authors who use the term personality in a much more restricted sense to mean personality traits: the set of characteristic dispositions that determine emotional, interpersonal, experiential, attitudinal, and motivational styles (McCrae & Costa, 1988).

- 4. Personality traits form part of the content of the self-concept.** Individuals have beliefs about their personality, they see themselves as being anxious or calm, sociable or detached, imaginative or practical. It is this aspect of the self-concept that the individual presumably relies on when answering the questions in a typical personality inventory. Personality researchers often use self-report to measure personality, and

whenever this is the case, a study of personality is therefore ipso facto a study of the self-concept.

## 1.5 Social Identities

*Social identities* or *social selves* are viewed as socially constructed and socially meaningful categories that are accepted by individuals as descriptive of themselves or their group (Ashmore & Jussim, 1997). All of these social categories can serve as the basis of both individual and collective identities.

I will in the following section examine three major social-identity theories: (1) McCall and Simmons' Role-Identity Theory, (2) Stryker's Identity Theory, and (3) Tajfel and Turner's Social Identity Theory.

The basis for theories on social identities has been laid by Mead's symbolic interactionism (1934), so this is where my overview begins.

### 1.5.1 Symbolic Interactionist Groundwork

Symbolic interactionism (Mead, 1934) contends that one's sense of self is largely grounded in the perceptions of others. Through social interaction and the internalization of collective values, meanings and standards, one comes to see oneself through the eyes of others and constructs a more or less stable sense of self.

Mead sees both self and society as created, sustained and changed through the process of symbolic communication. In this approach, shared meaningful symbols are the keys to the emergence of self and identity. The symbolic meaning of a word or gesture lies in the response of the audience.

A crucial point of the theory is that shared symbols enable individuals to "take the role of the other", because shared symbols have the same meaning in both alter and ego. That is, they evoke the same anticipated response. This means that one can imagine the responses of others to one's own use of words and gestures, and thus one can shift perspectives. Using symbols, as in the language, one is able not only to classify, think and act toward meaningful social objects, but also to reflect oneself as a meaningful social object from the perspective of others.

Mead (1934) speaks of an internal, silent "conversation of gestures" when an individual privately considers, for example, performing a behavior, then imaginatively anticipates other people's reactions to that behavior, then responds to their expected reactions, and so on. In James's (1890) terms, one shifts from the self as subject to the self as object and back again.

Mead, like James before him, called these two aspects of the self the “I” and the “me”, where the I is the active, creative agent doing the experiencing, thinking, and acting, and the me is the perspective or “attitude” toward one-self that one assumes when taking the role of specific others or the generalized community.

In the symbolic interactionist approach, these me’s, or perspectives on the self, are one’s social selves or identities. They represent who I am in my own and the other’s eyes.

Symbolic interactionism stresses the mutual interdependence of self and society, claiming that selves cannot exist without society and society cannot exist without selves. A society provides shared language and meanings, which enable individuals to take the role of the other. This in turn results in the acquisition of a variety of social self-conceptions. But individuals also tend to recreate the social order as they enact their social identities. This is because people can imaginatively anticipate others’ evaluations of their identities and identity performances. Since the positive regard of others is rewarding, individuals are motivated to modify their thoughts, feelings, and behaviors to conform. Thus, social control and the social order is to a large extent a product of self-control.

However, symbolic interactionism also emphasizes that human behavior is not determined by society because of the implied basic duality of the self: the I is often source of spontaneous, novel thought and action that cannot be predicted. When new ideas or behaviors generated by the I are adopted by others and become widespread in a community or society, then social change in a larger scale is occurring.

This understanding of the mutual interdependence of self and society underlies the theories that will be presented next.

### 1.5.2 McCall and Simmons’s Role-Identity Theory

McCall and Simmons (1978) presented a theory with the *role identity* as the central concept, which incorporates both the I and the me aspects of the self. They define a role identity as the character that an individual devises for him- or herself as an occupant of a particular social position.

The authors stress that individuals carry out the broad dictates of social positions (the *role* part of role identity, reflecting the me) but do so with improvisations and flourishes that make role performances expressive of personal character and idiosyncracies (the *identity* part of role identity, reflecting the I). Individuals are able to embellish their me’s because most social positions only loosely prescribe appropriate behavior, allowing considerable latitude for creative, individualized performance.



For McCall and Simmons, social positions that can form the basis for identities include

- sociodemographic characteristics (e.g., gender, ethnicity),
- social roles (conventional or deviant, such as father and alcoholic),
- and positions defined by characteristic activities (e.g., hostess, thinker, golfer, opera lover).

Since people usually have many different role identities, the central problem of the role-identity theory is to explain which role identities individuals will value most and attempt to perform.

McCall and Simmons argue that people organize their multiple role identities in a “prominence hierarchy” that reflects the ideal self. The prominence of any role identity depends on its reward value, which is a complex weighted sum of various sources of reward, for example, the degree to which others positively support the identity, and the intrinsic and extrinsic gratifications gained through competent performance.

When situations permit a choice among alternative lines of action, individuals will attempt to enact the more prominent or valued role identity.

However, the choices among role identity performances is also constrained by situational contingencies. Some situations are more likely to yield rewards for one identity enactment than another (e.g., enacting one’s secretary identity in the office is likely to get more approval and support from the colleagues and superiors than enacting one’s mother identity). The demands of the situation, other people’s role-identity needs or intentions, and their probability of supporting one’s own needs or intentions, must always be taken into account. Thus, identities of lower prominence may become situationally salient and are therefore enacted. McCall and Simmons point out that one often experiences discrepancies between one’s ideal self and one’s situational self, producing pressures to validate, eventually, those prominent, highly valued role identities that have been neglected in social interaction. Alternatively, one may reorganize one’s prominence hierarchy so that frequently performed situational identities become more important and more prominent.

McCall and Simmons argue that legitimating and maintaining identities is a need and a never-ending process. They compare it to the dusting of a huge old house: by the time one is done with the ground floor and gets to the upstairs, the downstairs is badly in need of dusting again.

An efficient means of meeting this need for identity legitimation is through establishing durable interpersonal relationships: finding partners who can be relied upon for dependable mutual exchanges of supporting and rewarding

each other's prominent role-identities. The closer such a relationship is and the longer it lasts, the more of one's self-structure can be incorporated into the relationship. For example, over time, a married couple does an increasing number of activities together: going to movies, playing cards with friends, going to church, visiting family, having children of their own. Thus both partners incorporate several role identities into the bounds of their relationship and sustain them efficiently within. Durable, multiplex interpersonal relationships tend to stabilize the prominence hierarchy, since the costs of giving it up increase as more aspects of the self become assimilated. Nevertheless, the individual's prominence hierarchy is of course still likely to undergo changes over time. Some role identities are devalued and dropped (due to lack of rewards, identity support, or situational opportunities to enact them), and other identities are made prominent or added to the hierarchy as the life course unfolds.

McCall and Simmons devote considerable theoretical attention to the intricacies of obtaining role-identity support from others who are also attempting to sustain their own valued role identities. Since one's own and the other's identities may not match, working compromises must often be negotiated.

One implication of the theory's overall argument is that most individuals and their role partners will behave in ways that largely (although never exactly) recreate the existing social structure. Despite the potential for novelty built into the very nature of the self and its I-aspect, the realities of differential power, status, and opportunity cannot be ignored. Although recognizing the possibilities of change is always inherent in individuals and negotiable in social interactions, symbolic interactionists generally tend to explain more adequately how regularities in social behavior occur than how large-scale social change is brought about (cf. Ashmore & Jussim, 1997).

### 1.5.3 Stryker's Identity Theory

The central problem of Stryker's identity theory is the same as the one of McCall and Simmons' role-identity theory: they both try to explain why certain individuals choose to enact certain roles among the many available in their identity repertoires.

In a similar way like McCall and Simmons, Stryker argues that one's role identities are arrayed in a hierarchy of salience, defined as a readiness to act out an identity or the probability that an identity is being activated in a given situation.

To incorporate social structure theoretically, Stryker develops the notion of *identity commitment*. In contrast to most conceptions that refer to subjective commitment, Stryker defines commitment in terms of the number

of social ties or the affective importance of the social ties upon which each identity is predicated. For example, a man is committed to the role of “husband” to the degree that the number of persons and the importance to him of those persons requires his being in the position of husband and playing that role. Identities that are based on more relationships or intense, emotionally positive relationships will be placed higher in the commitment hierarchy.

Commitment hierarchies reflect the social structure, because gender, age, race or ethnicity, and social class largely determine the social networks into which people are born or may enter. For example, white middle-class adolescents are more likely than black working-class adolescents to be tracked into a college-preparatory course and are thus more likely to form many friendships and positive teacher-student relationships based upon a good “student” identity.

Moreover, the cost of giving up any one of identity depends upon the number or the affective intensity of the social ties on which it is based. Thus, the higher in the commitment hierarchy, the more stable an identity is likely to be.

According to Stryker, identity commitment in turn strongly influences identity salience. He defines salience again not in subjective term but as the probability of invoking an identity across a variety of situations. That is, salience refers to the likelihood that a person will enact a particular identity when given an opportunity to do so or when lines of possible action are open. Identity salience in turn influences the actual enactment of social roles: the higher the salience of a particular identity, the more time and effort will one invest in its enactment, the more will one attempt to perform well, the more one’s self-esteem will depend on that identity, and the more one’s identity performance will reflect generally shared values and norms.

Although the primary goal of Stryker’s theoretical work is to explain the differential investment of people’s time and effort in various social roles at the individual level, it is clear, given the origins of this theory in symbolic-interactionist thought, that the theory helps to link identity performance to the maintenance of the social order. Because role identities are embedded in networks of relationships, people are presumably motivated to carry out the behavioral expectations attached to their role identities. Meeting others’ expectations simultaneously maintains these interpersonal relationships and fulfills behavioral norms, thus sustaining the broader social order from which these identities were initially derived.

Like all symbolic interactionists, Stryker also emphasizes that people may deviate from the norms governing identity behavior, or re-negotiate them, due to the creativity and initiative of the I aspect of the self. Ordinarily, however, structural constraints are sufficiently strong that deviations are empirically

less frequent that behavior that conforms to broad social norms (cf. Thoits & Virshup, 1997; Stryker, 1994).

#### 1.5.4 Tajfel and Turner's Social Identity Theory

Social identity theory begins with categorization, the cognitive process that allows humans to streamline perception by separately grouping like and unlike stimuli. Tajfel (1981) demonstrated that people categorize social as well as nonsocial stimuli and that people use social categories to identify themselves and others. He defined social identity as “that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1981, p. 255).

The main assertions of social identity theory can be summarized in a nutshell as follows:

1. Social relationships are an important component of the self-concept.
2. People are motivated to feel good about themselves.
3. People feel better about themselves when they believe the groups they belong to are somehow better than the groups to which they do not belong.

Research in this tradition has focused on such categories as race, ethnicity, class, and nationality. Tajfel illustrated his work with examples such as blacks and whites, Jews, Pakistanis, and French- and English-speaking Canadians. It is important to note that Tajfel did explicitly not distinguish between these larger sociodemographic classifications and more structured, face-to-face groups such as clubs or teams. For Tajfel, what defined a group was not its structure, function, or size, but its social reality. That is, a group exists insofar as its members categorize themselves with a high degree of consensus in the appropriate manner, and are consensually categorized in the same manner by others.

According to the social identity theory (Tajfel & Turner, 1986), individuals categorize themselves and others as a means of ordering the social environment and locating themselves and others within it. Thus, categories are selected to provide meaningful distinctions between people or subgroups of people. Individuals define a category according to the most widely shared attributes of category members (prototypes) or specific persons that exemplify the category (exemplars), or both.

These social identities are relational and comparative: they define members of a category relative to the members of other categories. For example, the category of *doctor* becomes meaningful in relation to the category of *patient*. As the comparison category changes, so might the salience of certain aspects of the focal social identity.

Since individuals are motivated to hold positive identities, they tend to accentuate differences between their category and other categories that favor their own.

Tests of the theory have taken many forms. Special interest was raised by the *minimal group paradigm*, which was first designed by Tajfel, Billig, Bundy, and Flament (1971) to determine the minimal sufficient conditions that will lead to in-group favoritism and to out-group discrimination. The experimental design was planned with the objective of testing the effect of *pure* categorization on the behavior between groups. Therefore it had to fulfill the following criteria:

1. There was to be no face-to-face interaction between the subjects, neither inside not between the groups.
2. Anonymity of group membership: the subjects had to interact with persons of whom they did not know to which group they belonged.
3. There was a lack of any form of instrumental or rational link between the proceeding of group arrangement—the classification was realized following trivial criteria—and the kind of inter-group behavior expected from the subjects.
4. The subjects did not personally profit or receive any benefit as a consequence of their inter-group behavior.
5. The inter-group behavior expected of the subjects was in form of real and meaningful decisions, that is concrete monetary rewards or punishments for other persons.

In these studies, participants are divided into groups on the basis of relatively meaningless criteria. For example, participants might be shown two paintings and then be divided into groups based on which painting they liked best. Participants are then asked to apportion monetary rewards between the two groups. Reliably, results showed that people discriminated in favor of their own group, and doing so made them feel better about themselves (Maass, Ceccarelli, & Rudin, 1996; Oakes & Turner, 1980, as cited in Brown, 1998).

The experimental design had actually been intended to be an extremely socially reduced basic situation that could be used as starting point for a successive analysis of the critical factors of group-discriminating behavior. The authors themselves were therefore surprised that even in these minimal conditions there were such clear effects of in-group favoritism and out-group discrimination (Tajfel, personal communication, as cited in Mummendey, 1998).

These studies support the claim that even trivial associations with others can have powerful effects on the way people behave and feel about themselves.

By identifying with a certain category they belong to, individuals perceive themselves as psychologically intertwined with the fate of the social category or role. They share its common destiny, and experience its successes and failures. As individuals begin to identify, they usually assume the perceived prototypical or exemplary characteristics of the category or role as their own.

As Ashforth (2001) points out, the individual may of course have these characteristics (or at least an affinity for them) prior to entering the category or role. Indeed, the literature on vocational identity, job search, and the fit between a person and his job or the organization he belongs to, assumes that individuals have a more or less clear and stable sense of who they are and simply search for positions and organizations that match or reflect these attributes. However, the sense of who we are is somewhat malleable and gets shaped and better known through concrete action and reflection. When the self is grounded and enacted in specific settings, it is most knowable. Ashforth (1981) assumes that individuals search for roles and organizations that appear to resonate with who they are and what they want, but it is in the course of learning and enacting the new role that a person crystallizes and enacts these actual self-conceptions.

Role-entry is therefore a complex process of learning, personal change, and role innovation. Thus the process of identification is often less about *discovering* fit than about *creating* it.

Tajfel argues that because social categories are differentially valued within a culture, social identities also carry varying degrees of positive and negative values for the self. Individuals obtain an assessment of their in-group's value relative to an out-group through social comparison processes. Tajfel assumed that humans need positive and distinctive group identities, from which individual self-esteem and a sense of personal value can be derived. It is this need that motivates intergroup behavior, like intergroup competition. If the group to which an individual belongs is less highly valued than relevant out-groups, the individual becomes motivated to either leave the group or improve the group's standing.

If there is a social mobility, individuals may leave the group and improve their social identity in a groups that has a higher status. Such “social climbing” or assimilation strategies are individual solutions and leave the relationship *between* groups as they were before.

If, however, there is no possibility for individuals to switch groups, an improvement of the social identity can be reached with behavior directed to change the relationship between groups, that is, the between-groups hierarchy. All strategies of social change have the goal of a better position of the in-group in comparison to the out-group on a shared value dimension.

Tajfel and Turner (1986) describe a variety of strategies available to attain this goal, that is to improve the image or status of one’s own group. In collective strategies, the group members jointly seek to achieve this through the following strategies:

1. Direct social competition on existing value dimensions: group members augment in that case behavior that emphasizes, or also exaggerates the positive distinction of the own group, or depreciate and devalue the other group. This kind of unrealistic perception and communication is called *in-group bias*. The strategy is especially being used by groups with high status whose superiority is being questioned or threatened.
2. Change of the evaluation or new definition of the comparison criterion (“social creativity”). Three possibilities can be named here (cf. Tajfel & Turner, 1986; Mummendey, 1998):
  - (a) A different positive and distinctive criterion is made salient. That is, a new dimension of comparison is created, where the in-group does now have an advantage over the out-group.
  - (b) The original dimension of comparison is reinterpreted in a way that leads to an inversion of the evaluation. Disadvantageous comparisons now appear to be particularly positive.
  - (c) A third possibility is to shift the comparisons to a different out-group: in this case, not the *dimension*, but the *group* of comparison is altered. Comparisons to groups with higher status are avoided; instead, group members seek to compare their own group to poorer out-groups.

A new definition of the situation of comparison has only an impact on the social identity of a group if these new evaluations become the consensus of the in-group, and are also accepted by the out-group (Mummendey, 1998).

Those who perceive differential group evaluations as legitimate and group boundaries as permeable may also try to move into the higher-status group. Where group boundaries are perceived as illegitimate, the above described collective strategies will be used. Regardless of the strategy selected, the dominant group is likely to resist, and this situation may result in intergroup conflicts and competition.

### 1.5.5 Turner's Self-Categorization Theory

As a further development of the social identity theory (Tajfel, 1981; Tajfel and Turner, 1986) Turner's self-categorization theory seeks to improve the understanding of our psychological capacity for collective behavior.

Whereas Tajfel's (1981) primary concern was intergroup relations, in particular group conflict and competition, Turner and his colleagues (Turner, Hogg, Oakes, Reicher, & Blackwell, 1987; Turner, Oakes, Haslam, & McGarty, 1994) focus on the cognitive processes that create a collective sense of self and make different group-level phenomena possible. Turner et al. (1987; 1994) seek to explain with their theory such diverse phenomena as social stereotyping, group cohesiveness, ethnocentrism, co-operation and altruism, emotional contagion and empathy, collective norms and social influence processes. The theory is complementary to Tajfel's (1981) and Tajfel and Turner's (1986) earlier work: while the latter emphasizes intergroup relations as a product of social identity, Turner et al. (1987; 1994) emphasize intragroup behavior.

Turner and his colleagues define social identity as "self-categories that define the individual in terms of his or her shared similarities with members of certain social categories in contrast to other categories" (Turner et al., 1994, p. 454). Turner uses examples such as sociodemographic groupings by gender, race, social class, religion, and nationality. Like Tajfel, he does not distinguish theoretically between these larger classifications and organized groups as bases of social identity because he assumes that members of each group develop a shared social categorization of themselves in contrast to others. This shared categorization influences in a given situation the members' attitudes and behaviors.

According to Turner, all identities are self-categorizations, differing only in their content and their level of abstraction or inclusiveness. For example, the sense of oneself as human, what Turner et al. (1987) call the *superordinate* level, is a more inclusive self-categorization than a collective identity, which is in turn more inclusive than a personal-level identity based on one's sense of uniqueness. According to Turner et al., regardless of the level of abstraction, how self and other are categorized is always determined by their



relative similarity of difference compared with other stimuli in the situation. Self-categorization theory is therefore both comparative and contextual in emphasis.

A key question for Turner et al. is how one shifts from a personal to a collective identity. He argues that the cognitive process of *depersonalization* enables the shift. Where the individual's unique characteristics fade and are replaced by a self-definition in terms of stereotypical group characteristics, this self-stereotyping amounts to the depersonalization of the self.

When the category or role is salient, unique attributes are downplayed as individuals come to see themselves as more or less exemplifying the category. Once internalized, these attributes may outline the individual's active involvement in the category or role. Thus, individuals develop a sense of who and what they are—their goals, values, beliefs, and normative ways of thinking, acting, and even feeling—at least partly from their social memberships.

Depersonalization in turn influences intra-group behavior. When the social identity is salient, the individual thinks and acts as an exemplar of the category or role. Cohesiveness occurs because individuals perceive similarity between themselves and others in the in-group: positive self-estimation is extended to others in the group as interpersonal attraction and liking. Group cooperation occurs because identifying oneself with others leads to a perceived similarity of interests and goals. Concurrently, conformity takes place because one adopts the stereotypical traits, attitudes, and behavioral norms of the group. In short, intra-group behaviors are consequences of depersonalization, where the self is perceived as a part of a collective identity (cf. Thoits & Virshup, 1997; Turner et al., 1987; Turner et al., 1994).

If collective identification and group behavior are the outcomes of depersonalization, what are its causes? According to Turner and his colleagues, the emergence of any self-categorization is a result of the interaction of three factors: the relative accessibility of a category, its normative fit, and its comparative fit.

1. Relative accessibility is the individual's readiness to use the category. This readiness is based on past experience, present expectations, and current motives, values, needs, and goals.
2. Comparative fit is the degree to which the individual perceives fewer differences on relevant categorical characteristics among the group members than between group members and others. This is also called the "principle of meta-contrast".
3. Comparative fit reflects the degree to which the stimuli in the context match normative stereotypes or beliefs about the comparison criterion

or category that is being applied

These three factors together determine whether a self-categorization will become a psychologically active or salient influence in a particular situation.

Turner et al. (1994) emphasize that self-categorizations are inherently fluid, variable, flexible, and context dependent. When the context changes, self-categorizations are also likely to change. Turner asserts that there is no stable self-categorization or self-concept except to the degree that the social structure itself generates stable contexts or social norms, values, and motives, making some social identities more accessible and therefore more likely to be applied in a given situation.

### 1.5.6 Discussion of the Different Approaches in Social Identity Theories

Tajfel and Turner's social identity theory and Turner et al.'s self-categorization theory share a highly similar conception of identity. However, there are some notable differences. While Tajfel (1981) and Tajfel and Turner (1986) focus more on *intergroup* relations—such as conflict and competition between groups—as a product of social identity, Turner et al. (1987; 1994) emphasize rather the *intragroup* relations as a product of self-categorization. In contrast to Tajfel, whose primary purpose is to explain the dynamics of inter-group relationships, Turner et al.'s main goal is to explain how collective identification occurs.

Both theories leave certain problems unresolved (cf. Thoits & Virshup, 1997). In both, interpersonal attraction and group cohesion are treated only at the cognitive level. Turner and colleagues see cohesion as a product of depersonalization: positive self-evaluations are simply generalized to other members of the in-group. Tajfel as well, although he includes the emotional significance of the group in his definition of social identity, does not emphasize the emotional, as opposed to cognitive, causes or consequences of collective identity. In fact, Tajfel rejects claims that in-groups form due to emotional attachments among members, arguing instead that identification with a group as a whole accounts for in-group formation and cohesion.

However, whether emotional antecedents and consequences of collective identities are less important than cognitive ones needs further consideration—on a theoretical as well as an empirical level.

Role-based theories differ from these approaches in several ways. They focus less on the group as a whole, but rather on the *individual within* a social

context. Beyond this, the two approaches differ regarding the presumed stability of social self-conceptions. McCall and Simmons as well as Stryker have suggested fairly stable and organized self-conceptions, embedded as these are in social relationships, themselves broadly patterned by the social structure. In contrast, Turner et al. (1994) express doubts whether the idea of self as a relatively fixed mental structure is meaningful or necessary. In fact, Turner argues against conceptualizing the self as a set of stored constructs, calling it instead a flexible, constructive process of judgment and meaningful inference in which varying self-categories are created to fit the perceiver's relationship to social reality. With that, Turner implies that identities are essentially fleeting phenomena, assembled anew each time relevant stimuli are present in a situation. According to Turner et al. (1987), collective identities are stable when social structures are stable, which means that roughly the same collective identity will be constructed every time when structurally recurrent contextual cues stimulate the self-categorization.

Thoits and Virshup (1997) point out that it is inconsistent to argue, as Turner et al. (1994) do, that all the components of self-relevant information, such as values, motives, and goals, are stored in memory as cognitive resources, while representations of personal and collective selves are not.

Moreover, it would be cognitively inefficient for individuals to construct and reconstruct whole identities each time relevant categorical stimuli appear.

Thoits and Virshup (1997) criticize further that Turner and his colleagues ignore research in the self-schema tradition (initiated by Markus, 1977) that indicates that stable self-conceptions exist and that schemas not only heighten the speed and accuracy of information processing but increase selective attention to self-relevant cues (cf. Guring & Markus, 1989; Markus, Crane, Bernstein, & Siladi, 1982; Markus, Smith, & Moreland, 1985, as cited in Thoits & Virshup, 1997).

Tajfel (1981) viewed role identities and collective identities as different phenomena and suggested that roles might fall somewhere in the middle on a continuum from interpersonal to intergroup behavior. In contrast, Turner and his colleagues (1994) explicitly subsumed role-behaviors under collective phenomena, viewing social roles as simple enactments or fulfillments of in-group norms and responsibilities. They argued that roles are properties of groups, emerging from the behavioral similarities and functional interchangeability of the in-group members.

Thoits and Virshup (1997) view it as a mistake to treat roles as byproducts of collective identification, as Turner and colleagues do. They reason that although, for example, family members may occasionally think of themselves as a collective unit and behave similarly and interchangeably on its behalf,

roles within the family are not performed by similar and interchangeable members. Rather, family roles are enacted by reciprocal, complementary, and socially dissimilar members such as parent and child.

Further, role and collective identities involve different psychological states: in one, the individual is psychologically merged the role (“this is who I am with respect to specific role partners”), in the other, the person is psychologically merged with the group (“this is who we are, including me”).

Finally, these identities serve different social functions—individual-level versus group-level functions.

In short, role identities can according to Thoits and Virshup (1997) not be treated merely as derivative aspects because they are qualitatively distinct psychological phenomena with different origins and consequences.

## Chapter 2

# The Aging Self—Development of Self and Identity in Later Adulthood

The tragedy of old age is not that one is old, but that one is young.

---

*Oscar Wilde (1890)*  
The Picture of Dorian Gray

### 2.1 Theories of Older Adults' Development

Since the 1960s, gerontologists have been developing conceptual frameworks or schema to describe ideal outcomes of the aging process. One of the most commonly used terms to describe a good old age is *successful aging*, introduced by Havighurst (1961). The concept of successful aging is central to gerontology, and the article by Havighurst appeared as the first conceptual piece in the first issue of *The Gerontologist*, one of the profession's prime journals.

Interest in successful aging has remained high through the successive decades. However, there is no single well-accepted definition of successful aging that has stood the test of time (which is not surprising, given the ambiguity of the term *success* itself).

- Havighurst (1961) defined it as *adding life to the years* and *getting satisfaction from life*.

- Rowe and Kahn (1987) defined it in terms of multiple physiological and psychosocial variables.
- Ryff (1982), a psychologist, defined successful aging as *positive or ideal functioning* related to *developmental work over the life course*.
- Fisher (1992) interviewed 19 senior center participants age 62–85 and found that they tended to define successful aging in term of *strategies for coping*.
- Gibson (1995) stated that successful aging referred to *reaching one's potential* and arriving at a level of *physical, social, and psychological well-being* in old age that is pleasing to both oneself and others.
- In the Encyclopedia of Aging, Palmore (1995) says that a comprehensive definition of successful aging would combine *survival* (longevity), *health* (lack of disability), and *life satisfaction* (happiness).
- Additionally, some gerontologists have discussed similar issues using different terms such as *adjustment* or *adaptation* to aging.

The shifting meanings of successful aging have paralleled changes in prevailing theories of social and psychological aspects of aging, because ideas of what constitutes successful aging are implicitly contained in each theory.

### 2.1.1 Disengagement Theory

One of the first theories of aging was the *disengagement theory* of Cummings and Henry (1961). They proposed that in the normal course of aging, people gradually withdrew or disengaged from social roles as a natural response to lessened capabilities and diminished interest, and to societal disincentives for participation.

The authors define disengagement as “an inevitable process in which many of the relationships between a person and other members of society are severed, and those remaining are altered in quality” (Cummings and Henry, 1961, p. 210). In other words, it involves the process of both a psychological and a social withdrawal of an individual from society. Disengagement is supposed to result in a reduction of life activities and ego energy in old age.

Disengagement theory has been used in support of the concept of the life review in old age. Butler (1963) hypothesizes that later life brings on isolation and unoccupied time, that is disengagement. This isolation provides the individual with time to reminisce and review his or her life. In a sense, it prepares the individual for the ultimate disengagement—death.

Not surprisingly, the disengagement model was criticized severely for ethical reasons, since it assumes that the isolation of old people from society is not a problem, but on the contrary a premise for successful aging. A person should, according to this model, willingly withdraw from work or family life and contentedly take to a rocking chair, or pursue other solitary, passive occupations while preparing for death.

Maddox (1964), for example, has argued against the concept of disengagement, claiming that there are many kinds of disengagement and that individuals may disengage at different rates. Carp (1968) found disengagement from family negatively correlated with disengagement from friends. Thus, individuals who were disengaged from their family maintained strong contact with friends, and vice versa. In addition, Tallmer and Kutner (1969) found that disengagement was not related to age but rather to physiological and social stress, both of which have been found to increase with age.

We can therefore conclude that disengagement theory has a poor conceptual and empirical basis. It is not an appropriate basis for further theoretical development.

### 2.1.2 Activity Theory

A second major theory of aging, referred to as *activity theory*, proposed that people age most successfully when they participate in a full round of daily activities, that is, keep busy (Lemon, Bengtson, & Peterson, 1972). Activity theorists view older people as unchanged and hold social and physical obstacles responsible for declining rates of social interaction (Havighurst, 1961; Maddox, 1964). This theory seemed to explain the surge of volunteerism and senior activism in the 1960's and 1970's in the United States and may have been partly responsible for public policies which underwrote the development of senior centers and other recreational facilities in that period.

Today, the theory has been discarded by gerontologists who view it as too narrow in its implied advocacy of one lifestyle. Empirical research has demonstrated the heterogeneity of older people, including many people who prefer less structured lives or do not have the health or means to pursue a full schedule of activities. Lee and Markides (1990) could show that, contrary to activity theory, when health status is controlled, social activity levels do not predict physical or psychological well-being. Nevertheless, activity is widely campaigned by older adults themselves as the key to successful aging, so that Ekerdt (1986) has named this "the busy ethic".

### 2.1.3 Continuity Theory

A third theory of aging which has been viewed with much more favor in recent years is called *continuity theory* (Atchley, 1989). This theory proposes that the people who age most successfully are those who carry forward the habits, preferences, lifestyles and relationships from midlife into late life. This theory has gained support from the results of major longitudinal research studies which have shown that variables measured in midlife are strong predictors of outcomes in later life.

Since the continuity theory has had much influence in the research field of life span development and gerontology, and has in the meantime received considerable empirical support, I will here describe it in more detail.

A central premise of the continuity theory is that, in making adaptive choices, middle-aged and older adults attempt to preserve and maintain existing internal and external structures. They prefer to accomplish this objective by using continuity, that is by applying familiar strategies in familiar arenas of life. In middle and later life, adults are drawn by the weight of past experience to use continuity as a primary adaptive strategy to cope with changes associated with normal aging.

Continuity theory assumes evolution, not homeostasis (which has been the background of activity theory), and this assumption allows change to be integrated into one's prior history without necessarily causing upheaval or disequilibrium. An evolutionary theory allows the individual to have goals for the developmental direction.

Atchley named his work "a continuity theory of normal aging". The term *normal aging* refers to usual, commonly encountered patterns of human aging. Because there is a sociocultural overlay that interacts with physical and mental aging, normal aging can be expected to vary from culture to culture. Further, normal aging can be distinguished from pathological aging by a lack of physical and mental disease. In addition, there are individuals whose aging is anomalous in the sense that it departs from the statistical norm but is not pathological. For example, moving to a retirement community in later life is not typical, but is not pathological, either.

Thus, continuity theory claims to portray a general picture of aging for a large majority of people, at least within the Northern American culture.

#### Types of Continuity

Continuity can be either internal or external.

*Internal continuity* is defined by the individual in relation to a remem-



bered inner structure, such as the persistence of a psychic structure of ideas, temperament, affect, experiences, preferences, dispositions, and skills. Internal continuity requires memory. What is disconcerting to us about people with Alzheimer's Disease or amnesia is precisely their inability to use memory to present a continuity of identity and self. Using a dramaturgical analogy, they do not know who their character was or is, how it fits with other characters in the everyday drama, or even what the drama is about. Obviously, then, lack of internal continuity can be not only a distress to the affected individual, but also to those who are accustomed to interacting with him or her and expect a degree of predictability. Internal continuity is a healthy capacity to see inner change as connected to one's past and to see one's past as sustaining and supporting and justifying the new self.

*External Continuity* is defined in terms of a remembered structure of physical and social environment, role relationships, and activities. Perceptions of external continuity result from being in familiar environments, practicing familiar skills, and interacting with familiar people. Individuals have everyday locations in ways that are uniquely typical of them as individuals. External continuity is thus the persistence of a structure of relationships and overt behaviors. To use the dramaturgical analogy again, everyday life for most older people is like long-running improvisational theater in which the settings, characters, and actions are familiar and in which the changes are mostly in the form of new episodes rather than entirely new plays.

For both internal and external continuity in older age, it can be an important pre-requisition to maintain a continuity of physical and mental health. If a person's health state declines dramatically, it often becomes necessary to change the external situation, for example move to a nursing home where medical care can be provided. The internal continuity, on the other hand, is threatened rather by a mental decline, since memory processes are so crucial for a persistence of inner structures.

It appears that even in older age a continuity of physical health is the normal pattern of aging, and not just an ideal exception. This could be shown for example in a still ongoing longitudinal study in Switzerland (Swiss Interdisciplinary Longitudinal Study on the Oldest Old, SWILSO-O) that surveyed a sample of—at the beginning of the study— 340 persons aged 80 to 84 years over a period of five years. It could be shown that stability in the health state—in good as well as bad health—was the most frequent pattern that could be observed (Lalive-d'Epinay, Pin, & Spini, 2001; Spini, 2001).

Whether internal or external, the extent of continuity is, according to Atchley (1989), determined by a here-and-now assessment of the individual

based on his or her remembered past. Therefore, the existence and the effects of continuity can only be studied by retrospection.

The degree of continuity attributed by an individual to his or her life can be classified into three general categories: too little continuity, optimum continuity, and too much continuity.

1. Too little continuity means that life seems too unpredictable to be individual. If lack of continuity comes to be defined by the individual as severe, then it can also be called discontinuity.
2. Optimum continuity means that the individual sees the pace and degree of change to be in line with personal preferences and social demands as well as within her or his coping capacity.
3. Too much continuity means that the individual feels uncomfortably in a rut; there is not enough change to enrich life.

It is important to note that there can not be objective definitions in order to classify people with regard to the degree of continuity. Instead, individuals must classify themselves based on their own standards. Although we can devise regularities or normative standards within categories of people with regard to perceptions of continuity, the assessment must still be made by the individual.

### **Pressures and Attractions Toward Continuity**

Atchley (1989) argues that aging individuals are predisposed and motivated toward both internal and external continuity by identifiable pressures and attractions.

**Internal Continuity:** Individuals have strong motives for wanting to preserve internal continuity.

1. To begin with, individuals perceive that as a foundation for effective day-to-day decision making because internal continuity is an important part of individual mastery and competence. For example, continuity of cognitive knowledge is a major element if the individual's capacity to interpret and anticipate events. Without persisting cognitive knowledge, there is no predictability in the world, and without predictability, no mastery (or even competence) is possible.

2. Internal continuity is essential to a sense of ego integrity, which goes along with a sense of personal history and an acceptance of that history to form a part of one's identity.
3. Internal continuity also helps to meet the need of self-esteem. The continuity principle within the self contains the ideas used as the basis of self-esteem. Atchley's argument for this is based on a definition by James (1890), who suggested that self-esteem can be seen as a function of one's perceived level of success in relation to one's ideal expectations of self. From this follows that self-esteem can be raised either by increasing success or reducing expectations. For this formulation to apply over time, there must be a concept of continuity operating in the definition of both success and expectation. It then follows that it is impossible to have durable self-esteem without references to some notion of continuity.
4. People can also be motivated toward internal continuity as an effective means meeting important needs. For example, most of us have ideas that quite effectively lead us to the food, housing, income, and clothing that we need. Internal continuity also promotes easy maintenance of social interaction and social support. The predictability of an individual's identity, self, and temperament is seen as an important part of that individual's personal attractiveness because it makes him or her foreseeable and comfortable to be around.

**External Continuity:** Various pressures and attractions move people toward external continuity as well.

1. As noted earlier, people are expected by others to present themselves in a way that is obviously tied to and connected with their past role performances. Older adults who have major social responsibilities such as jobs and child-rearing are generally exposed to more pressures from others to show continuity compared to those who have retired or are in the "empty nest" period of the family life cycle.
2. External continuity of relationships is motivated by a desire for predictable social support. Kahn and Antonucci (1981) referred to the inner circle of close family and friends as the "convoy" of social support, because they "travel" with us across our lifetime. The convoy of social support affirms individual identity, provides insurance against a potential need for instrumental dependency, and allows a sense of belonging.

3. External continuity increases the possibility that feedback received from others about the self-concept can be accurately interpreted. This anticipation allows the individual to concentrate his or her interactions among those who affirm his or her own view of self.
4. External continuity is seen as an important means of coping with physical and mental changes that may come along with aging, or even as a means of delaying these changes. For instance, regular practice has been proved to offset negative effects of aging on various cognitive capacities.
5. External continuity reduces the ambiguity of personal goals that can come with changes such as widowhood, retirement or the empty nest. The notion of continuity is an efficient way to narrow the field from which new goals are sought. For example, the most common pattern of adjustment to retirement is to maintain the same set of personal goals (cf. Atchley, 1982).

Thus, continuity is, according to Atchley (1989), a preferred strategy for dealing with aging for a wide variety of reasons. Both internal and external continuity help individuals focus on and maintain their strengths and minimize the effects of deficits as normal aging occurs.

#### **2.1.4 Socioemotional Selectivity Theory**

Socioemotional selectivity theory asserts that time perspective is integrally involved in human goal-directed behavior and, more broadly, in human motivation (Carstensen, 1992; Carstensen, Isaacowitz, & Charles, 1999; Lang & Carstensen, 2002). The awareness of time, not just clock time or calendar time, but lifetime, is a fundamental human characteristic (Carstensen et al., 1999). Although cultures clearly differ in their treatment of time, a basic awareness of time is ubiquitous in all known cultures and peoples. This universal ability plays an essential role in motivation. Goals are often set within temporal contexts, and goal selection depends fundamentally on the perception of time. Although a reasonably stable set of goals—ranging from physical safety and sustenance to more psychological goals such as feeling comfortable and gaining information—motivates behavior throughout life, the perception of time influences which is adopted. That is, the same essential set of goals operates through life, but the relative importance of specific goals within this goal constellation changes as a function of time (Carstensen, Fung, & Charles, in press; Fung & Carstensen, in press).

Socioemotional selectivity theory focuses on two main classes of psychological goals: one comprises expansive goals, such as acquiring knowledge or

making new social contacts; the second comprises goals related to feelings, such as balancing emotional states or sensing that one is needed by others.

When the future is perceived as open-ended, future-oriented goals are most important and individuals pursue goals that optimize long-range outcomes. In the interpersonal realm, such goals often pertain to acquisition of knowledge or to seeking new social contacts—even relatively superficial contacts or ones tinged with negative affect—because the information gleaned from such contacts may be useful in the future. In contrast, when time is perceived as limited, emotionally meaningful goals—e.g., a desire to feel needed by others—are pursued because such goals have more immediate payoffs.

Thus, according to the theory, temporal perspective is an inherent aspect of goal selection. Since age is inextricably and negatively associated with future time, age-related patterns emerge. The theory posits clear developmental trajectories for emotional and knowledge-related goals. Early in life, time is typically perceived as expansive and people are motivated to prepare for a long and unknown future. With this future-orientation, developing organisms allocate considerable resources to obtaining knowledge and developing new skills, and are motivated to do so particularly when knowledge is limited. Because knowledge striving is so important from late adolescence to middle adulthood, it is pursued relentlessly even at the cost of emotional satisfaction. As people move through life they become increasingly aware that time in some sense is “running out”. More social contacts feel superficial—trivial—in contrast to the ever-deepening ties of existing close relationships. It becomes increasingly important to make the “right” choice, not to waste time on gradually diminishing future payoffs. Increasingly, emotionally meaningful goals are pursued.

Developmentally, the knowledge trajectory starts high during the early years of life and declines gradually over the life course as knowledge accumulate and the future for which it is banked grows ever shorter.

Unlike knowledge-related goals, emotional goals follow a curvilinear trajectory. Socioemotional selectivity theory acknowledges that emotional needs are important throughout life, but posits that their relative salience among the constellation of social motives changes with age. The emotion trajectory is highest during infancy and early childhood when emotional trust and relatedness are initially established and rises again in old age when future-oriented strivings are less relevant.

The theory predicts thus that people who are older or are otherwise in situations that place constraints on time attach greater importance to emotionally meaningful goals relative to those who are younger and/or perceive time as relatively open-ended.

Socioemotional selectivity theory provides an explanation for the appar-

ently paradox finding that life satisfaction and subjective well-being are maintained or even improve in old age, in spite of dwindling social networks. The theory accounts for this phenomenon in motivational terms: limiting contact with peripheral social partners allows individuals to optimize emotional experience with people closest related to them.

Like disengagement theory (Cummings & Henry, 1961), socioemotional selectivity theory views age-related reductions in social contacts as motivated. However, disengagement theory predicts social withdrawal from intimate relationships as well as peripheral relationships and posits emotional tranquility to play a central role in the mutual withdrawal of individuals and society. Socioemotional selectivity theory, in contrast, suggests that close relationships are maintained in later life and emotional investment in them increases (Fung, Carstensen, & Lutz, 1999).

The claims of the theory have been supported by extensive experimental evidence, suggesting that not age itself, but rather the limited time perspective is the reason for an increase of importance for emotionally meaningful—in contrast to knowledge-oriented—goals (Carstensen et al., in press; Carstensen & Frederikson, 1998; Carstensen et al., 1999; Fung & Carstensen, in press; Lang & Carstensen, 2002).

## 2.2 Development of Age Identity or Subjective Age

The concept of *subjective age*—the idea of asking people how old they feel—is a relatively new domain of research. It has first raised some larger interest among marketing psychologists in the early 1970's, and since then, it is still in marketing psychology where we can find most of the literature on the topic. The reason for that interest is probably that subjectively young elderly people (who are sometimes also referred to as “New-Age Elderly”, cf. Sherman, Schiffmann, & Mathur, 2001) are considered to be a special consumer segment, and an attractive one since they are supposed to be more youthful in their behavior, and thus more active consumers than the so-called traditional elderly.

Studies dealing with subjective age show that real age and subjective age can differ considerably, the subjective age being for adults almost always younger than the real age. The older people get, the more do they feel younger than their real age.

Öberg and Tornstam (2001) for instance found an almost linear increase of the discrepancy between subjective and real age with Swedish partici-

pants. Already around fifty, people felt on average around 10 years younger than their real age, and in the oldest age group (75–85 years), the average discrepancy was around 20 years.

The same study shows that more than half of the 65-74 year old people consider themselves as youthful, and still almost half of the 75-85 year old do so as well.

Similar results were obtained by Barnes-Farrell and Piotrowsky (1989), Filipp and Ferring (1989) and Smith and Baltes (1996).

Numerous variables have been found to correlate with subjective age. I will here give a brief literature overview of variables that were considered in previous studies.

### **Biological and Physiological Variables**

#### *1. Physical Health*

Self-rated good health is in general inversely correlated to subjective age. The better someone considers his or her physical health, the younger does that person perceive him- or herself to be. This finding is consistent throughout the literature. It was shown in longitudinal (Markides & Boldt, 1983; Markides & Ray, 1988) as well as cross-sectional studies (Baum & Boxley, 1983; George, Mutran, & Pennebaker, 1980; Gwinner & Stephens, 2001; Mutran & George, 1982; Sirgey, Mentzer, Rahtz, & Meadow, 1991).

Besides the self-rated health, the number of visits to a doctor and the number of times hospitalized are also predictors for higher subjective age (Mutran and George, 1982).

#### *2. Physical Attractiveness*

Guiot (2001) showed for women aged 50 years and older that there is a relationship between self-perceived physical attractiveness and subjective age. The more the women's self-perception of physical attractiveness was positive, the stronger their feeling of remaining young.

### **Demographic Variables**

#### *1. Chronological Age*

The difference between chronological and subjective age is increasing with chronological age (Kastenbaum et al., 1972; Staats, 1996; Staats,

Heaphey, Miller, Partlo, & Romine, 1993). For young people chronological and subjective age correspond more or less, whereas adults mostly feel younger than they are. Filipp and Ferring (1989) report an average discrepancy of 10 years for her sample of 55 year old men. The 75 year old men feel on the average even 15 years younger than they are. The Berlin Aging Study showed similar discrepancies (c.f. Smith & Baltes, 1996): On average the subjects (aged 70 to 103 years) reported to feel twelve years younger and look almost ten years younger than their chronological age. The age that the respondents considered as ideal for was 25 years below their real age.

## 2. *Gender*

There is no conclusive evidence about the connection between gender and subjective age. Most studies find no association between gender and subjective age (Baum & Boxley, 1983; George et al., 1980; Mutran & George, 1982 Öberg & Tornstam, 1999). However, there are earlier studies (Bengtson, Kasschau and Ragan, 1977; Peters, 1971; Ross, 1981 as cited in Barak & Stern, 1986) that find women to perceive themselves as younger than their male cohorts.

## Social Correlates

### 1. *Marital Status*

The evidence about the relationship between marital status and subjective age is not consistent. While Baum and Boxley (1983) found no significant relationship between marital status and subjective age, Barak and Stern (1986) found that unmarried women perceive themselves as younger. Markides and Boldt (1983) reported that unmarried men and women perceive themselves as older. The dissenting findings might result from methodological or sample differences (cf. Barak and Stern, 1986).

### 2. *Family Demographics*

This variable deals with both age and number of an individual's offspring or progeny, that is, children and grandchildren.

- (a) *Age of offspring*: A multivariate study by Barak and Gould (1985) has found the age of the offspring to be one of the main determinants of subjective age. The older an individual's children and grandchildren are, the older that person perceives him- or herself to be.



- (b) The *number of offspring* is also positively correlated with subjective age: the more children and grandchildren a person has, the older his or her own age perception (Barak & Gould, 1985; Barak & Stern, 1986).

### 3. *Social Support*

A greater social support is correlated with a lower subjective age (Gwinner & Stephens, 2001).

### 4. *Culture*

Cross-cultural studies showed that the phenomenon is not limited to Western cultures: Indian, Korean and Chinese people, for instance, indicate as well a subjective age that is younger than their chronological age (Barak, Mathur, Lee, Zhang, & Erondo, 2001; Barak, Mathur, Lee, & Zhang, 2001; Mathur, Barak, Zhang, & Lee, 2001).

Unfortunately, although the authors claim that their findings were “surprisingly similar to those found in ‘ageless’ American society” (Barak et al., 2001, p. 1023), they provide no explicit comparison to studies in Western cultures regarding the extent of the discrepancy between subjective and chronological age.

## **Job and Profession Variables**

### 1. *Educational Status*

While there are studies indicating no relationship (Baum and Boxley, 1983; George, Mutran and Pennybaker, 1980, Mutran and George, 1982), most studies have found that higher educated people perceive themselves as younger (Barak and Stern, 1986; Gwinner & Stephens, 2001; Markides and Boldt, 1983).

### 2. *Employment and Retirement Status*

Barak and Stern (1986) found that fully employed persons perceive themselves as younger. George, Mutran and Pennybaker (1980) as well as Mutran and George (1982) found that retired people perceive themselves as older than their not yet retired cohorts, whereas Baum and Boxley, using comparative age as measure, found no association between retirement and subjective age.

### 3. *Income*

Income has been found to correlate with subjective age: the higher the income level, the younger the person perceives him- or herself to be (Baum and Boxley, 1983; George, Mutran and Pennybaker, 1980; Gwinner and Stephens, 2001; Mutran and George, 1982). Sherman et al. (2001) also showed that subjectively young persons are more likely to perceive themselves to be financially well-off and at the same time less likely to equate wealth with happiness and success. Moreover, their findings suggest an interaction between gender and subjective age. It seems that those who are male and subjectively old are likely to feel that they are “financially just getting by”.

### **Psychographic Variables**

1. *Self-Esteem and Self-Confidence*

A positive self-perception, that is, high self-esteem and self-confidence correlate with low subjective age (Baum and Boxley, 1983; George, Mutran and Pennybaker, 1980; Mutran and George, 1982).

2. *Locus of control*

An internal locus of control is related to low subjective age: individuals who feel that they have more control over their lives perceive themselves as younger than individuals who feel that their lives are rather controlled by external factors (Baum and Boxley, 1983).

3. *Life Satisfaction*

A greater degree of well-being in terms of life satisfaction is related to a lower subjective age (Barak and Gould, 1985; George, Mutran and Pennybaker, 1980; Mutran and George, 1982).

A comparison of studies focusing on life satisfaction rather than subjective age shows that many correlates are common to both constructs. It is therefore conceivable that subjective age and life satisfaction function as covariates.

4. *Attitude Toward the Elderly*

Gwinner and Stephens (2001) found that people who were subjectively older were more likely to hold negative attitudes towards the elderly. The authors point out that this is counterintuitive, since one would imagine that those who view old age negatively would attempt to disassociate themselves from old age and report a younger subjective age. Gwinner and Stephens' finding is just the opposite. According to them,

an explanation might be the higher-than-average education level of the participants. Growing older may seem more attractive to those armed with the knowledge and life experience that education brings.

## Behavior Variables

### 1. *Consumer Behavior Traits*

- (a) *Venturesomeness*: Sherman, Schiffmann and Mathur (2001) found that subjectively young persons are more *adventurous* than subjectively old persons. They continue to find new challenges and interests and they are more likely to value different things each day (i.e., novelty seeking). Moreover, their findings suggest an interaction between gender and subjective age. It seems that those who are female and subjectively young have a greater propensity to be adventurous. Gwinner and Stephens (2001) also found cautiousness in purchases to be correlated with a higher subjective age. Villanueva (2002) showed in a causal model that a high subjective age is linked to the avoidance of physical risk and low confidence. It is thus indirectly linked with an avoidance of the market.
- (b) *New Brand Trial*: Gwinner and Stephens (2001) found that people who feel young are more likely to try new brands. In a structural equation model, however, they found that link to be an indirect one, the subjective age influencing new brand trial through information seeking and cautiousness.
- (c) *Traditionality*: People who perceive themselves as younger tend to be less traditional and old-fashioned in their appearance (Barak & Gould, 1985).
- (d) *Homebodyness*: In a multivariate study, Barak and Gould (1985) found homebodyness to be a determinant of subjective age: Those persons who agreed to statements like “I am a homebody” had an older subjective age than those who did not.
- (e) *Price Sensitivity*: This trait refers to a consumer’s tendency to take his or her purchase decision mostly on the criterion of price. Barak and Gould (1985) showed that female consumers (aged 30-69) were the more likely to be concerned with the cost of goods the older they felt.
- (f) *Information seeking*: People who are subjectively younger are more likely to consume product information, especially advertisement, in general. For instance, they agree to statements like “I

often read even my junk mail just to know what it is about” (Gwinner & Stephens, 2001).

### 2. *Use of Media*

Barak and Gould (1985) found that television viewing was associated with an older subjective age. Reading, on the other hand, was associated with a younger subjective age, and for radio listening he found no association.

Unfortunately, the correlations were not controlled for education or socioeconomic status.

### 3. *Other Specific Behavior Traits*

Barak and Gould (1985) found that exercising and dining out were correlated with a younger perceived age.

Based on these findings of previous literature, a model of subjective age can be developed as shown in Figure 2.1. The model shows interrelations that have so far been shown empirically between different variables and subjective age, without claiming any causal directions.

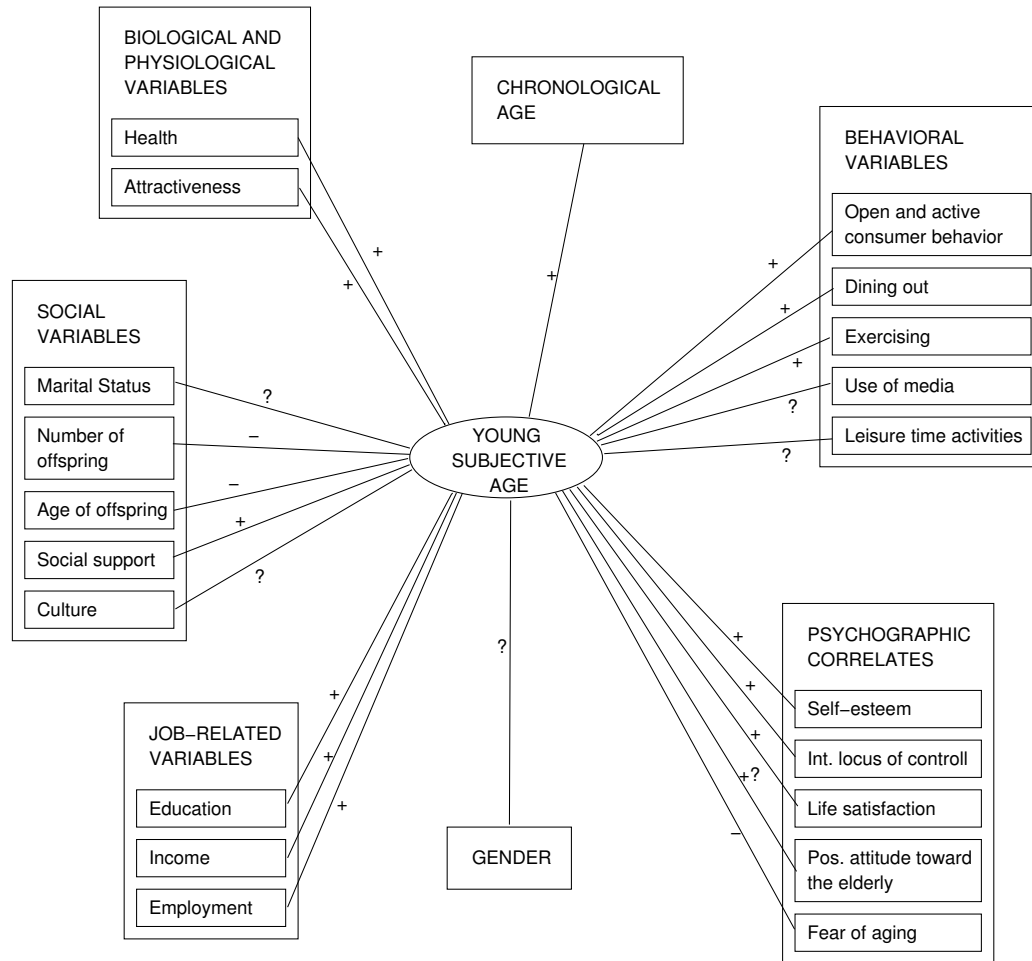


Figure 2.1: Correlations with young subjective age, as found in previous research



## Chapter 3

# “...When the Work’s All Done This Fall”—Transitions in Role Identities Due to Retirement

L’homme n’est rien d’autre que son projet, il n’existe que dans la mesure où il se réalise, il n’est donc rien d’autre que l’ensemble de ses actes.

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*Jean-Paul Sartre*

L’existentialisme est un humanisme

Retirement is a relatively recent phenomenon, characteristic of affluent industrial and post-industrial societies. In many other cultures, and in our own culture of 100 years ago, retirement was virtually nonexistent. Work was part of life until illness or death prevented it. Now, however, we have compulsory age-based retirement in most occupational sectors, supported by social security schemes, and the tradition of retiring from work around the age of 65 in other sectors. At the same time, life spans are lengthening.

The implication is that, to take the situation in Switzerland as an example, men who retire at about 65 have a life expectancy of roughly 14 to 15 years in retirement (Kappeler, 2003), and women, who have a longer life expectancy, can even expect to live for 19 years in retirement if they get retired at 63 years (which is the retirement age for women in Switzerland).

Retirement can not only be viewed from the perspective of giving up work. Beside the work-related variable, the retiree needs to adjust to a number of

other life change events associated with the process. Shifts occur in at least three important *personal resources*:

1. a decrease on personal income,
2. an increase in free time, and
3. a potential for declining health along with constrained activity (Howard, Marshall, Rechnitzer, Cunningham, & Donner, 1982)

In addition, there are *socio-psychological* variables that involve changes:

1. the altered relationships an individual has with his or her interpersonal environment, and
2. the altered societal perceptions about his or her role in society now that retirement has taken place.

Retirement, therefore, is a complex process requiring adaptation in many spheres of life besides the work role.

### 3.1 Definition Problems of Retirement

When retirement as a stage of life is conceptualized, there appears to be general agreement that it is the period following a career of job-holding, when income is usually secured by pension benefits, by virtue of having held a job for a minimum length of time in the past (Atchley, 1980; Howard et al., 1982). However, defining retirement in operational terms is more difficult, and there is no widely recognized and accepted operational definition in the literature today.

Operational definitions seek to define an abstract concept such as retirement in terms of simple, observable procedures. Researchers studying the field can choose from various approaches to operationalizing retirement, including defining it in terms of reduction in employment, proportion of income from pensions or self-initiated plans, and a subjective assessment as to whether the subject considers him- or herself as retired.

This difficulty in defining retirement is a major problem, and Howard et al. (1982) even suggest that the variety of definitions in use probably accounts in large part for the problem of obtaining consistency in research results.

Ekerdt and DeViney (1990) introduce five criteria for defining retirement:



1. *Separation From a Career*: Under this criterion, persons retire upon leaving a job, position, occupation, or employer with which they have a long association. It is a criterion for which retirement is largely a one-time event.

The idea is clear enough—people retire when they leave their life’s main work. However, the idea is not easy to operationalize because not all workers have continuous careers in one place or line of work. For example, if a vocational education teacher concludes a career at the local high school but remains occupationally an active plumber, is this a career- ending retirement? When there is not enough common experience and homogeneity of experience regarding careers and endings, it is difficult to frame survey questions about these transitions. One post hoc strategy (i.e., devising a measure from data already collected) is to characterize the position with longest tenure as the “career job” and one’s having left it as retirement.

2. *Exit from the Labor Force*

Exit-retirements occur when an older worker has no current employment, as indicated by zero hours worked or zero earnings, and is not seeking employment. Operationally, labor-force exit is the easiest, most convenient definition of retirement, so long as the investigator does not overlook occasional or seasonal employment that occurs on a regular basis.

It has, however, the disadvantage of grouping together as “nonretired” all persons with any work activity, full-time employment along with nominal engagements in the labor force. This dichotomy masks the nature of older persons’ work patterns, which are increasingly characterized by part-time employment with advancing age

3. *Reduced Effort*

By this criterion, retirement is a substantial reduction in labor supply or income, as indicated by a lower level of work activity or earnings. The “reduced effort” criterion is a refinement of the previous “exit” criterion, locating the cutoff for retirement/nonretirement higher up the labor supply distribution.

Work effort is often called an “objective” measure of retirement, yet determinations of full, partial, or nonretirement are fairly arbitrary. Some clues about where to categorize along the work effort or earnings continuum can be had by reference to other criteria. For example, Murray (1979) has shown that people do not call themselves “partially

retired” in great numbers until they have reduced work to 30–34 or even 25–29 hours a week.

#### 4. *Pension Receipt*

Under this criterion, people retire upon receipt of retirement pensions. These are in the United States mainly the retired-worker benefit of Social Security or a pension from private or public employment. Pension eligibility is an administrative definition of retirement and already an amalgam of other criteria. Eligibility for the Social Security benefit is defined by age, previous employment, and reduced earnings.

#### 5. *Self-Definition*

Persons can be considered to be retired if they say they are. This is typically called a “subjective” definition of retirement, which is, as Ekerdt and DeViney (1990) point out, an unfortunate label. In social science generally, the quality of subjective data is usually compared unfavorably to so-called objective data with their greater validity, reliability, and intelligibility. When self-reports of retirement status are labeled as subjective, in contrast to the so-called objective indicators of reduced effort or pension receipt, it may be meant that retirement status is subjectively reported. However, unless data were generated by the rare strategy of matching individual records with pension plan or Social Security files, almost all information in retirement research is subjectively reported and might properly be termed subjective labor force participation, subjective earnings, subjective benefits, etc. In another sense, the subjectivity of research participants (in their determinations of retirement status) are contrasted with the objectivity of scientific classifications. Yet subjectivity, too, inheres in the activity of investigators, who also contrive characterizations of retirement using unreported or unexamined judgments, assumptions, and reference to common consensus. Ekerdt and DeViney (1990) emphasize that the proper contrast is therefore not the subjectivity or objectivity of assignments to the retirement status, but the source of the assignment, that is *self-definition* versus *investigator definition*.

Nevertheless, it is still important to understand what people mean by their responses. When people say they are retired, are they confirming a role exit (Ebaugh, 1988)? Or assuming a social identity? Are they acknowledging facts about their employment or income? For instance, it can happen that older women, who have been housewives for virtually all of adulthood but receive spouses’ pension benefits, define

themselves as retired. Other women with full and concluded work careers may see themselves as housewives. Claims about being retired may also be difficult to interpret among persons with histories of irregular work patterns or chronic unemployment. An other problem of the self-definition criterion is that self-definitions may change over time in ways that make it difficult to pinpoint the date or event of retirement. Persons may not decide they are retired until sometime after they have entered a set of circumstances. For example, after a certain duration of disability or unemployment, a person may later decide that he or she had retired when the new situation started.

Ekerdt and DeViney (1990) point out that defining persons as retired for research purposes is hard because strategies for reducing the ambiguity of retirement classifications largely succeed only in moving ambiguity around. For example, introducing a category of partial retirement as an alternative to nonretirement or full retirement will not resolve the number of arguable assignments, but rather concentrate them among the partial retirees. Therefore, no strategy for defining retirement suffices for all purposes; definitions should be suited to the research task at hand.

However, in an analysis of a variety of studies, Ekerdt and DeViney (1990) showed also that the operational definitions are not so difficult as they first appear. By using a two- or three-criterion retirement definition, the number of arguable classifications can be seen to be fairly small relative to the number of persons for whom retirement status is a straightforward matter.

## 3.2 Predictors for a Successful Retirement Adjustment

Role theory is a potentially useful framework for examining the retirement transition. Roles consist of activities and behaviors that characterize a person in a given social context and may be fundamental to change (George, 1990). Role theory suggests that certain socially prescribed and personally relevant roles are critical for identity. These self-defined roles may emerge through one's personal relationship to close personal associates (e.g., mother, friend), through valued activities experienced in the work roles (e.g., physician), through voluntary group affiliations (e.g., clubs), and through leisure activities (e.g., gardener, photographer).

Individual differences in adjustment to change can be understood by examining the shifts in critical role activity that accompany life transitions.

Research by George (1990) has shown that role theory can be used as a foundation for understanding retirement adjustment. She used role theory to predict how older people negotiate age-related changes and reported that a person's success in negotiating and managing the necessary shifts in activities that result from role change and redefinition determines adjustment. This role-based approach may be applied to the retirement process, because leaving the workforce necessitates a shift in roles and activities.

Retirement can be viewed as a transition that involves role expansion, redefinition, and change. Role activities that may diminish are those that depend on contact with coworkers and activities involved in the execution of work functions. Thus, Taylor and Cook (1995) assume that social roles whose maintenance depends on coworker interactions and professional roles that are based on work behavior are strongly influenced by workforce exit. The influence of such post-retirement role loss on the individual depends on the self-rated importance of these work-dependent roles and on the availability of other satisfying substitutes for the old roles.

### **3.2.1 Personal Relationships and Social Roles**

Social connections offer a means of support for individuals as well as a source of identity. A number of studies have been conducted suggesting that there is a positive relationship between the quality of retiree social connections and post-retirement affect. For example, a common finding among researchers is that social support may buffer against stress and stressful changes (Antonucci, 1990; Cutrona, Russel, & Rose, 1986; Krause, 1987). Dorfman, Kohout, and Heckert (1985) surveyed retirees in a rural environment and found a consistent relationship between retirement satisfaction and social connections such as friendship networks, family members, and group affiliations. Examining the roles associated with family, friends, informal organizations, and leisure activities allows us to understand their importance in retirement adjustment.

Social roles are often operationalized as interactions with family, friends, and informal affiliations.

#### **Spouse**

A question of interest is how the retirement process and adjustment is different for married than for unmarried persons, and what influence this social role of being a husband or a wife has on the retirement satisfaction. Results of research on this question are mixed. Some researchers have reported that being married is associated with more positive post-retirement satisfac-

tions scores (Beck, 1982; Wan & Odell, 1983), others have found no effect (Burkhauser & Quinn, 1983).

Atchley and Miller (1983) suggested that marriage has an influence on the timing of retirement, especially for employed wives. Married women are more likely to retire *before* age 65 while unmarried women are more likely to retire *after* age 65. Older couples may attempt to coordinate the time they retire so that they can spend retirement together. Since women tend to marry older men, this would explain why older married women retire before age 65.

From a role theory perspective, we can assume that the simple marital status would not be as important a predictor for post-retirement adjustment as would be the importance of the husband or the wife role, and also the extent to which one gains satisfaction from role-related activities. Therefore, it is necessary to go beyond a simple examination of whether participants are married or not.

Bearth-Candinas (1997) analyzed data from a two-year longitudinal study, questioning 119 couples

1. six months before retirement,
2. six months after retirement, and
3. one-and-a-half years after retirement (Buchmüller et al., 1996; Buchmüller, Dobler, Mayring, & Schneider, 1997).

Bearth's analysis showed that retirement has no or only small effects on different characteristics of marriage quality like communication, expression of emotion, conflicts and confidence.

Lee and Shehan (1989), however, found negative effects of the husbands retirement in the marital satisfaction of employed wives.

Meon, Jungmeen, and Hofmeister (2001) found in a two-wave longitudinal survey including 534 married men and women that the actual retirement transition is related to declines in stated marital quality for both husbands and wives. Married men and women who move into retirement while their spouses remain employed report the greatest marital conflict, regardless of gender. People who had been retired for more than two years, however, report higher marital quality, suggesting that role strain is reduced once couples are settled into retirement.

A similar u-formed development of satisfaction during the transition to retirement has been found in the three-wave longitudinal study by Buchmüller et al. (1997).

Several studies have indicated that the perceived equity in the division of household labor is an important predictor for retirees' satisfaction. Participation of husbands in household work seems to contribute to satisfaction and morale of husbands as well as wives (cf. Dorfman, 1992; Piña & Bengtson, 1995; Ward, 1993).

Kulik (1996) questioned Israeli males, comparing pre-retired persons with late-phase retirees. His results suggest an increase in the husband's emotional commitment towards the wife and an increase in the expected dependence on her. Kulik attributes his findings to the fact that when the male partner loses social contacts and other social rewards deriving from the work place, the female partner becomes a primary source of emotional, physical, and moral support.

### **Family and Friends**

Simons and West (1985) suggest that it is useful to examine each of these resources separately, because friends, family, and affiliations may fill different needs for the individual and may be associated with quite distinct roles. For example, satisfying family interactions are more strongly associated with feelings of security than are interactions with friends. Being part of a friendship group is more closely associated with feeling useful, whereas being married is not closely associated with this feeling.

The nature of the activity that defines family and friendship is also distinctive, lending additional support to the idea that these social roles are separate. A study by Larson, Mannel, and Zuzanek (1986) suggested that time spent with the spouse is in more passive leisure, whereas time spent with friends is spent in more active socializing. Families may impose needs as well as offer resources, this is why Antonucci (1990) suggests that network of friends are more closely related to well-being than is the family-network.

Friendship roles have probably a significant impact on retirement adjustment, continuity of friendship being an important determinant of adjustment (Taylor & Cook, 1995). Those individuals who derive many of their meaningful social activities from colleagues in the work setting may have a relatively difficult retirement transition. Maintaining these interactions after leaving work can be difficult.

MacLean (1982) found that involvement with one's family can serve as a predictor of adaptation to retirement: the more a person is involved with his or her family, the more satisfied he or she is with the retirement situation.

Schneider and Dobler (1997) report that the satisfaction before and in retirement is higher if a person has the feeling of having reached his or her goals in the family, and if a person sees him- or herself as supported by a social network providing information and emotional closeness.

### 3.2.2 The Work Role

Taylor and Cook (1995) point out that understanding the influence of work-related variables on retirement requires a consideration of the meaning of the work role, a given profession, and a particular job in an employee's life. The authors distinguish three levels of attachment to the work role:

#### 1. **Low work role attachment:**

Individuals with low work role attachment do not derive a major source of identity from the employing organization or their profession. For these people, leaving the job does not entail problems due role loss because the job is not a prominent source of identity.

Taylor and Cook (1995) assume that a significant proportion of individuals look forward to retirement and do not believe that they will miss work. These individuals may concentrate on other social roles as retirement approaches. This proposition is supported by research providing evidence that persons approaching retirement view the job as less important and less central to happiness than do those in middle age (Ryff, 1989). Similarly, having a career orientation may be less important in an older person's definition of an ideal person than it is in that of a younger person. These individuals may see other roles as more important in retirement and may not miss work. Non-work roles like leisure activities or family interactions may be more important than work roles for many retirees.

For those who do not view their affiliation with a given employer as central in their identity, an interest in post-retirement employment may stem from financial or social needs rather than from the need to fulfill a work role. Even though they may feel a need to be productive, other activities and roles outside work may readily fill this need.

Atchley (1989) observed that formal role relationships, such as jobs that do not allow much personalization, are often easy to leave behind at

retirement because they are rightly seen as having little reinforcement to offer one's identity.

**2. Productive individual:**

The second level of identification is found in the individual who has the need to occupy a formal work role but has little attachment to a given profession or company. These individuals may feel a need to be in a formal work role, for example because of a strong work ethic, but they may not regret leaving a particular job.

For those individuals who value work in general, other jobs can satisfy this general need and maintain the role identity of a "productive individual". These persons would have an attachment to the general role of "worker" rather than identifying themselves closely with a profession or a company. To maintain this role, they may take on part-time roles in related or even completely different organizations after retiring from a particular firm.

If a person is attached to work in general, Taylor and Cook assume that voluntary organizations may serve as satisfactory replacement for the old work role. To the extent that some substitute for the satisfaction from the professional activity is available, the individual may be able to retire without discomfort. For example, a person who has been a manager for a number of years and enjoys the activities central to the profession may find satisfaction in taking a leadership role in a volunteer association.

**3. Work as self:**

The third level of attachment to work is found in the individual whose identity extends beyond a general attachment to work. For these retirees, being an employee of a given firm or a member of a profession have additional significance. They may view their professional activities and their affiliation with a company as an important part of their identity. This source of identification cannot be easily be replaced by other activities or other work. Thus, satisfactory substitutes for the strong organizational or professional role may not be readily available. Those workers who derive a major source of identification from their particular job will probably find retirement from a given professional role to be aversive, because retirement for this individual carries with it a loss of identity.

Taylor and Cook (1995) emphasize that these three types of individuals may be indistinguishable regarding their general work satisfaction and com-



mitment scores. If professionals are to assist with the retirement transition, they need therefore to understand the depth of individuals' attachment to work and also to examine the extent to which these individuals have invested time and energy in developing alternative, satisfying roles.

However, there exists evidence that suggests that a high level of attachment to the work role might not necessarily be linked to more difficulties with the adaptation to retirement. On the contrary: a study of Buchmüller et al. (1997) found that the satisfaction with work before retirement correlated with a high satisfaction with retirement afterwards. Other work-related predictors for high retirement satisfaction are a person's scope of action in his or her job, the extent to which a person experiences work as a resource and as important, the extent to which a person has reached his or her goals during work, and the positive attitude of the employer towards older employees (Buchmüller et al., 1996; Buchmüller et al., 1997; Schneider & Dobler, 1997). Thus, high work commitment can even be a predictor for a good retirement adaptation.

### 3.2.3 Voluntary Organizations

Participation in clubs, churches, and other voluntary organizations can create roles that are central for a person's identity (Taylor & Cook, 1995). The level of activity in formal and informal associations before retirement predicts the extent of participation after retirement (Long, 1987; Wan & Odell, 1983). This shows that involvement in these groups continues beyond the transition to retirement.

The question of the relationship between involvement in voluntary groups and retirement adjustment has been addressed in various studies. The results of diverse studies reveal consistently a positive relationship between memberships in voluntary associations and feelings of usefulness and satisfaction (Simons & West, 1985; Usui & Keil, 1987). Voluntary activities such as affiliations with clubs are related to actual and anticipated retirement satisfaction and well-being (Dorfman et al., 1985; Dorfman & Moffett, 1987; George, 1990; Kilty & Behling, 1985, as cited in Taylor & Cook, 1995).

These roles may be particularly important because they do not depend on work-based interactions and allow people thus to maintain an important role-identity tied to a useful and socially appreciated activity after leaving the work-force.

### 3.2.4 Leisure Time Activities

Recreational activities that bring a sense of satisfaction are open to expansion after retirement. Research on the development of leisure time activities during the transition to retirement shows a similar pattern to the above mentioned evidence about commitment to voluntary organizations: a study of Cutler and Hendricks (1995), e.g., suggests that involvement with leisure activities before retirement predicts the involvement after retirement, suggesting that people continue largely with the same activities after leaving the workforce.

Similar results are reported by Schneider and Dobler (1997), who found that the experience of leisure activities before retirement correlates with satisfaction and well-being after retirement: People who are satisfied with their leisure time before retirement, who view leisure as important and as a resource, who practiced many activities and had a high scope of action during leisure time, reported high well-being six and eighteen months after retirement.

Having satisfying leisure activities is associated with greater interest in early retirement (Pherson & Guppy, 1979), suggesting that these may serve as an attractive source of activity after retirement and may lead people to anticipate more positive retirement experiences. These activities may serve as a source of identity for retirees in the sense that a person can also define him- or herself in terms of leisure accomplishments (e.g., golfer, painter).

Leisure may also contribute to a feeling of belonging when these activities are shared with others. The relationship between leisure-oriented club participation and life satisfaction is probably to a large extent due to the satisfaction derived from relating to others. Thus, shared leisure interests may define valued social roles for the retiree.

### 3.2.5 Internal Resources

The ability of adapting to new roles may be seen as a psychological predisposition that varies among individuals. The extent to which one effectively uses available resources to cop with role changes that accompany retirement depends, among other predictors, on psychological resources of the individual. Thus, one's success in redefining roles and role activity during the retirement process is also influenced by these internal psychological resources.

### Internal Locus of Control

Locus of control involves a belief that one possesses the power to shape life's outcomes. Those with an internal locus of control believe that they can control many events in life, whereas those with an external locus of control believe that many of life's outcomes are the result of luck and chance and are not under their control. Understandably, those individuals with an internal locus of control would be more likely to seek out information and resources that may aid the retirement transition.

Internal locus of control has been associated with a number of psychological criteria related to effective coping skills. In older adults, an internal locus of control has been associated with more positive coping strategies when faced with challenging life events, greater life satisfaction, and more positive psychological functioning in retirement (Abel & Hayslip, 1987; Buchmüller et al., 1997; Hickson, Housley, & Boyle, 1988, as cited in Taylor & Cook, 1995).

Taylor and Cook (1995) point out that locus of control may have an influence on adjustment to retirement because those persons with an internal locus of control may take charge of restructuring their activities and redefining their roles after the transition to retirement. By accepting personal responsibility for life changes, a retiree with an internal locus of control may take advantage of available resources in order to successfully redefine or expand existing roles.

Locus of control can influence retirement in at least two ways (Taylor & Cook, 1995):

1. One important point is that individuals who possess an internal locus of control may be more likely to engage in proactive strategies to meet the retirement changes. They may seek out retirement planning in anticipation of retirement change.
2. In addition, individuals who have a strong internal locus of control may actively seek out new roles and activities after retirement, whereas persons with an external locus of control will probably use more passive strategies for coping and may not be as successful in pursuing substitutes for the upcoming changes in work and social roles. After retirement, they may be less likely to seek out replacements for lost activities and roles.

Thus, locus of control may influence adjustment through its influence on coping strategies.

### **Self-efficacy Belief**

Another related psychological factor, self-efficacy belief, is the belief that one possesses the knowledge and skill needed to effectively negotiate events (Bandura, 1982). Applied to retirement, it consists of the self-assessed ability to deal with the changes that accompany retirement, that is the belief that one has the resources needed to make the retirement transition successfully. Given that positive feelings of self-efficacy are associated with more confidence in the ability to handle challenging events, this variable may predict retirement adjustment. Those with high self-efficacy belief or high retirement self-confidence may be more likely to plan for and adapt to retirement changes (Taylor & Cook, 1995).

Self-efficacy, or the belief that one can effectively cope with a given situation, has been used to

1. predict whether an individual will enter a new and unfamiliar situation,
2. predict the affective reactions of an individual to the new situation, and
3. predict an individual's confidence in his or her own ability to deal with the consequences of the change.

Given that retirement is a new experience, self-efficacy belief may serve as a predictor of post-retirement adjustment. Those preparing to exit the workforce would be expected to respond more favorably to retirement if they believed that they had the skills and abilities necessary to make the retirement transition.

This proposition has been supported by empirical evidence. Retiree's self-rated ability to make the adjustment to retirement is a predictor for the planned retirement age: those persons who believed in their ability retire at an earlier age (Taylor & Shore, 1995).

In addition, more favorable estimates to make the transition are positively related to an affirmative attitude toward retirement, and higher self-efficacy belief is related to lower preretirement anxiety (Fretz, Kluge, Ossana, Jones, & Merikangas, 1989).

Buchmüller et al. (1997) found in their longitudinal study that persons with high self-efficacy belief were more satisfied and had a more positive attitude towards retirement than persons with low self-efficacy belief (Buchmüller et al., 1997; Schneider & Dobler, 1997).

It can thus be assumed that self-efficacy is an important determinant of anticipated and of experienced retirement satisfaction.

Retirement self-efficacy may be malleable if it operates similarly to other forms of self-efficacy belief. That is, self-efficacy belief may be increased by some types of retirement planning. MacLean (1982) showed that beliefs that people had about retirement before they left the workforce could significantly predict subsequent retirement adjustment.

Retirement planning is an important way to clarify expectations of retirement and to transmit useful information to the retiree, thus raising self-efficacy belief.

I will discuss the predictive value of different forms of retirement planning and preparation below in some more detail (see subsection 3.2.6).

### **Sense of Coherence**

Antonovsky (1987) developed the psychological construct of *sense of coherence (SOC)*, as he tried to understand how survivors of concentration camps overcame their experiences. He was impressed with the fact that some persons who had been interned in Nazi concentration camps, an experience of great physical and emotional stress, followed by the uncertainty of being displaced refugees after the war, nevertheless emerged from that experience with reasonably good physical and emotional health. Why was this? To answer this question, he developed his salutogenetic model of health, which posits that to be stressed is the normal state for human beings, so the question to be answered was not why do people become sick, but rather why is it that most of us manage to stay reasonably well? His answer to the problem was a concept he called the sense of coherence.

Antonovsky describes the sense of coherence as a factor that has a stabilizing effect when people experience stressful events, enabling people to maintain a positive level of well-being.

He defined the sense of coherence as a global orientation expressing the extent to which an individual has a pervasive, enduring but nevertheless dynamic feeling of confidence. The feeling of confidence refers to three domains:

#### **1. Comprehensibility:**

The extent to which a person finds or structures their world to be understandable, meaningful, orderly and consistent instead of chaotic, random and unpredictable.

This comprehensibility refers to stimuli emerging from the individual as well as from the environment during the life course.

**2. Manageability:**

A person's sense of being able to cope by relying on his or her own resources or by getting help and not grieving endlessly.

**3. Meaningfulness:**

The deep feeling that life makes sense emotionally; that life's demands are worthy of commitment.

Schneider and Dobler (1997) investigated the influence of the sense of coherence on the transition to retirement in their three-wave longitudinal study (Buchmüller et al., 1996; Buchmüller et al., 1997).

They found that people with a high sense of coherence differ from people with a low sense of coherence in the following aspects:

- They are more satisfied with their work and with their life in general *before* retirement.
- They view retirement six month before the transition more favorably and do not see the transition as a threat.
- They report more positive feelings regarding the prospect of their own higher age.
- They are more satisfied with their life six and eighteen months after retirement.

They are, however, not more active in their leisure time activities than people with a low sense of coherence.

The results of this study showed in addition a clear correlation of a high sense of coherence with a high self-efficacy belief.

### **3.2.6 Retirement Preparation**

Regarding the fact that most employees pass 15 to 30 years of their lives in retirement, the preparation of the transition gains importance. Therefore, an increasing number of employers offer their employees preparation courses for retirement and aging one to two years before retirement. The necessity of these courses is hardly ever questioned by employers who are often disposed to invest considerable amounts of money therein.

Since the mid-1970's, there are remarkably few studies reported that were designed to evaluate retirement preparation courses.

A pair of studies by Glamser (Glamser, 1981; Glamser & DeJong, 1975) are often cited because of their conclusions: that a comprehensive preretirement program can bring about short-run changes in retirement-related knowledge and behavior, but the long-term impact on the retirement experience is in doubt (as cited in Abel & Hayslip, 1987; Ekerdt, 1989). In the first study (Glamser & DeJong, 1975), the old male work force of a glass manufacturer was assigned to a control group or to one of two experimental groups, depending on the plant location. One group participated in a comprehensive eight-session group discussion program with a planning emphasis. The other group received a half-hour individual briefing about benefits. Rates of participation in the two interventions were 62% and 71%, respectively. The post-test four weeks afterwards compared knowledge, attitudes, and behavior between 19 discussion-group participants, 40 men who received the briefing only, and 20 controls. Compared to the others, the group discussion members proved to be more knowledgeable at the post-test and had undertaken more preparation activities. Effects of the individual briefing were minimal. Neither intervention had a significant effect on attitudes. The acceptance of both interventions were high, the participants being very pleased with the assistance they had received.

Glamser (1981) later followed these same persons into retirement, resurveying them six years after the program had ended. This time, groups did not differ on measures of life satisfaction, retirement attitudes, or reported preparedness for retirement. Glamser concluded that the true value of retirement preparation programs may lie in the help that can be provided during the *preretirement* stage.

This conclusion sounds sobering, but in my opinion, it is an unrealistic expectation if we hope to find an impact on such stable constructs as life satisfaction or retirement attitudes as late as six years after those relatively short interventions (cf. also Palmore, 1982; Klauer, 2001).

Another early study was a comparison of four behavior program models by Tiberi, Boyack, and Kerschner (1978). The four interventions were labeled:

1. facilitated interaction
2. semi-structured stimulus and discussion
3. presentation/audience

#### 4. individual/resource

In this order, they represent a rough continuum of decreasing intensity and opportunity for group discussion.

Several hundred persons volunteered to participate in the four programs; a comparison group was included in the design, consisting of persons willing but unable to participate. Complete pre-test and three-month follow-up data were available for 256 (56%) of the original volunteers. Groups were compared on nine factor scores measuring behavioral, informational, and attitudinal change. The general tendency was that participants in the more intensive programs had more favorable pre- to post-program changes.

However, the authors acknowledge carefully issues of self-selection among participants that may have had an influence on these results.

Haari (1992) realized a questionnaire survey in Switzerland to evaluate retirement preparation courses offered by employers (Haari, 1992; Haari & Holzwarth, 1993). 250 retirees and 200 employers participated in the study.

The usual form of a retirement preparation course is a two-day event where about nine topics are covered, e.g., legal questions like marriage law and right of inheritance, health and nutrition, or financial aspects.

Results of the questionnaire study showed that before retirement, about one third of the employees reject the course. Employees with higher hierarchical status do less often participate in the course. Haari concludes that there is a certain social pressure imposed on the employees, which only high positioned employees have the power to resist. However, since the course is offered during working hours, I suggest as an alternative explanation for this higher participation rate of blue-collar workers that two days off the usual work might be more rewarding for them than for higher positioned persons whose work-goals are often rather task- than time-oriented.

The employers as well as the retirees were asked about the contents of the course that the retirees had taken part in, between two and five years before the survey. The congruence between the answers of employers and retirees were taken as a measure of the reception of the contents. Results showed that the higher the socioeconomic status of the participants, the better did they remember the contents of the preparation course.

A central objective of the study was to find out if participants of the course were really better prepared for their retirement than non-participants. The results of the study showed no significant differences between participants and non-participants on any measures of life situation, time management and prearrangements for older age.

Haari emphasizes that these humbling results hold only for the kind of



preparation course that is currently offered by employers. He suggests that the intention of imparting as many aspects as possible through presentations by experts does not correspond to the needs of the participants. His proposal is to offer courses that take place at different moments after retirement (over several years) and are oriented more towards the momentary needs of the participants and treat a more specific and limited number of topics.

Because of methodological constraints of the study, the results must in my opinion be interpreted cautiously. As with the earlier, above presented studies, the design was not experimental, and the self-selection of the participants may here as well have influenced the results.

Another question is also if the claims were possibly also too high in this study. The fact that two days of retirement preparation did not, years after the course, have a measurable effect on the participants' life situation and attitudes is in my opinion not really surprising, and it seems to me to be a rather severe judgment to conclude that those two days were therefore of no use to the participants.

The overall conclusion we can draw from these studies is that the available evidence justifies only modest expectations for the usual retirement preparation programs to bring favorable outcomes for the individuals. The more intensive models can, however, increase knowledge and planning behavior, at least in the short run.

### **3.3 The Process of Role Exit**

Retirement is a process of role-exit, if we look at it from the side of the professional life, where the worker or employee role must necessarily be given up.

What makes the concept of role exit interesting is the necessity for disengagement, that is for physical and psychological withdrawal from the role and the cultural context and web of relationships within which the role is embedded. Taylor and Cook (1995) have suggested for retired persons that the stronger the identification with the work role has been, the more difficult the exit. The departing individual must cease to conceive him- or herself as a role occupant, perhaps abandoning social identities and relationships that are highly valued. Moreover, role disengagement is usually a mutual process in which members of the parting individual's role set must similarly withdraw their role-based attachments to the individual. Thus, just as role entry may involve a long and sometimes difficult process of adjustment, so too may role exit.

According to Ashforth (2001), the sources of role exit differ on two dimensions: the voluntariness of role exit (voluntary vs. involuntary) and the locus of change (intra-role or push forces vs. extra-role or pull forces). Figure 3.1 illustrates those origins of role exit.

		Locus of Change	
		Intrarole (push forces)	Extrarole (pull forces)
Voluntariness of change	Voluntary	Resignation, Retirement (as escape from the work role)	Resignation, Retirement (as attraction to other roles and activities)
	Involuntary	Individual termination Mass layoff	Role progression Failing health

Figure 3.1: Origins of role exit (Ashforth, 2001, p. 111).

1. Regarding the *locus of change*, a role exit is the product of factors inherent in the role and its enactment (push forces, such as job dissatisfaction) or factors external to the role (pull forces, such as an inquiry from a headhunter), or both.

For example, Grove (1992, as cited in Ashforth, 2001) interviewed nurse practitioners about their occupational choice. Individuals who had been dissatisfied with their previous occupation as a nurse were likely to articulate their role transition as an active and rational attempt to upgrade their professional credibility and status. That is, dissatisfaction had mobilized them to seek change (= push). Conversely, individuals who had been satisfied with being a nurse were more likely to describe their transition in passive terms, as an unexpected opportunity to make a job change (= pull).

2. Regarding voluntariness, a role exit may occur because a role occupant chooses to leave voluntarily or because other influential individuals or uncontrollable forces make it necessary than the individual leave (involuntarily). The phenomenology of role exit is much different when one perceives that the change was voluntary than when one is forced to leave. The illustrative cell entries in Figure 3.1 show that resignation

and retirement are examples of voluntary role exits that can originate from push or pull forces or both. Individual terminations and mass layoffs are examples of involuntary push forces. Finally, role progression (e.g., a medical intern becomes a resident, a university freshman becomes a sophomore) and failing health are examples of involuntary pull forces.

These are examples that represent tendencies in the sense that they are often but not always true. For example, one might be coerced into accepting early retirement, which would then be involuntary, or one may deliberately make mistakes to induce termination, which would then be voluntary.

Research on role exit in organizations has so far been less common than research on role entry. Ashforth (2001) sees two main reasons for this:

1. Organizations seem to be far more concerned with role entry than exit. Role entry represents the promise to the future: individuals are hired, promoted, transferred, or even demoted to help the organization, and selection, training, and socialization may greatly facilitate their adjustment. In contrast, role exit represents the termination or even failure of the past: individuals are fired or decide to quit or retire, or are promoted, transferred, or demoted to a new slot. It is often not appreciated that the nature and management of the role exit may also influence the nature of the subsequent role entry and the morale of those who remain.
2. A second reason may be that researchers usually find it easier to study incoming newcomers than outgoing veterans. Newcomers are often hired and begin en masse, providing a convenient sample, whereas veterans tend to depart individually and often without warning. Also, entry-level newcomers are often recent graduates of university, high school, or training programs, again providing a convenient source.

Because of this lopsidedness in research emphasis, there are far fewer models of role exit than role entry. In the following, I will first present a model of role exit that was developed by Ebaugh (1988). This model describes the process of *voluntary* role exit in four stages: After this, I will display an expansion of this model by Ashforth (2001), where *involuntary* role exits are included, and special consideration is brought to the pull-forces.

### 3.3.1 Ebaugh's Model of Role Exit

The role exit model of Ebaugh (1988) focuses primarily on intra-role and voluntary transitions, where doubts materialize in the role occupant and ultimately prompt a role exit. In terms of the phenomenology of role exit this represents the most complex intersection of locus of change and voluntariness, because much of the process is intrapsychic.

Ebaugh's model is based on 185 interviews with a variety of "Ex's", including occupational roles (e.g., ex-nuns, ex-doctors, retirees), family roles (e.g., divorced people, mothers without custody of their children), and stigmatized roles (e.g., ex-convicts, transsexuals).

For my purpose, a major strength of Ebaugh's model is her focus on the interaction of role and identity. Consistent with the focus of this work, Ebaugh concentrated on exroles that had been central to the identity of her interviewees.

The model is divided into four stages: First doubts, seeking and weighing alternatives, the turning point, and creating an exrole. The stages can be regarded as tendencies rather than fixed and necessary steps that must occur.

#### Stage 1: First Doubts

##### PRECIPITATING EVENTS

Individuals are often swept along by the demands and routines of everyday life and may not actively reflect on their valued identities, goals, and life trajectories. Thus, reflection is often prodded by events that interrupt the flow of life. First doubts occur when a person begins to question and possibly redefine meanings that have previously been taken for granted.

What makes an event a *precipitating event* is the meaning the individual derives from it. An event may produce a flash of insight or realization, what Denzin (1989) referred to as an *epiphany*. Denzin identified four types of epiphanies:

1. *minor* or *illustrative*, which reveal tensions,
2. *major*, which provide "moments of truth" where the essence of something is revealed,
3. *cumulative*, where a series of events is revealing,

4. and *relived*, where one re-experiences an earlier epiphany.

Whatever their form, epiphanies may lead to first doubts.

A variety of events can trigger those first doubts:

- **Disappointments:**

Because of the high importance ascribed to a secure sense of identity, meaning, control and belonging in a role, doubts are most likely to arise when one has experienced a major disappointment, such as a poor performance appraisal, or a series of smaller disappointments, such as tensions or conflicts among peers, or difficulties in mastering tasks.

Disappointment triggers attributional processes as one searches for the cause of this negative event. According to attribution theory (Weiner, 1985; Weiner, 1986), the more an individual attributes causality for the disappointment to factors that are perceived to be global rather than specific, stable rather than unstable, external rather than internal, and uncontrollable rather than controllable, the more likely the individual will conclude that the problem cannot be solved, and therefore decide to exit the role.

For example, Whitey and Cooper (1989) found that low job satisfaction and the perception that the situation would not improve each predicted preparation for organizational exit. Thus, role exits are often triggered by a desire to address accumulated disappointments that appear likely to persist.

- **External Changes:** Goffee and Scase (1992) found that organizational changes and uncertainty induced managers to rethink their orientation towards work and their organization. For some of them the organizational changes and uncertainty were the reason why they decided to become self-employed.

External changes may help crystallize vague feelings of dissatisfaction, bringing them into focus and increasing the salience of them, thereby galvanizing action. Thus, ironically, even changes that are meant to improve the satisfaction of employees may make the context and nature of work more salient and cause them to question their commitment to it. The organizational act of changing the status quo sensitizes individuals to other possibilities, to the limitless potential of change, so that the external change may be seen as insufficient (this is also what is meant by the saying: “let sleeping dogs lie”).

Of course, external changes need not be planned or on a grand scale. Events such as the resignation of a valued peer, a sudden opportunity, the onset of a major illness, and so forth may similarly provoke reflection and doubt.

- **Milestones:** Milestones are significant signposts that punctuate or conclude a journey. Fulfilling a contract, accomplishing a goal, or simple anniversaries such as New Year's Eve or one's date of hire, last raise, or birthday may trigger reappraisals.

Milestones are often used as periodic respites, where the temporary cessation of normal activity allows one to reflect on the past, present, and future.

Complex and lengthy role transitions are often subdivided into series of discrete and tightly structured steps, such as the progression from medical school to internship, to residency, to practitioner. Structuring the process helps define short-term tasks and goals and gives a sense of predictability and progress, which in turn helps motivate the individual.

However, the act of structuring socialization also creates natural breakpoints when one's goals and resources may be reassessed.

Similarly, symbolic occasions designed to dramatize and thereby heighten commitment may also unwittingly provoke a reassessment. Ebaugh (1988) interviewed former nuns who left the convent shortly before they were to pronounce their final vows. Rather than strengthening commitment, the act of publicly declaring commitment raised their doubts.

- **Impending Events:** Whether an event is an external change, milestone, or of another kind, the mere *anticipation* of it may precipitate doubts.

Ekerdt and DeViney (1993) argued provocatively that as individuals approach retirement they increasingly express discontent with the work role as a means of justifying their withdrawal. The justification enables individuals to resolve their inner conflict about leaving an otherwise desired role, allowing them to more easily accept and perhaps even embrace their impending retirement. Ekerdt and DeViney (1993) surveyed men who were 50 to 69 years old and whose planned age for retirement did not change over the nine years of the study. Controlling for various factors that could impair job involvement and satisfaction, they found that reported job tension and fatigue became indeed worse

with increased proximity to retirement. Thus, as the time remaining dwindled, they appeared to reinterpret their work situations.

- **Internal Changes:** Finally, psychological changes may occur in the absence of a discrete and identifiable event. Two common sources of internally generated doubts are *burnout* and the *pendulum effect*.

Burnout refers to the process by which demanding work roles gradually drain emotional energy such that one becomes unable to perform effectively or derive satisfaction from the role (Maslach, 1982). Usually, the turnover begins with some level of dissatisfaction (Lee, Mitchell, Wise, & Fireman, 1996). Ironically, it appears that precisely those individuals who are most strongly—and exclusively—identified with their work role and committed to perform well that are most susceptible to burn out (Ashforth & Humphrey, 1993; Hallsten, 1993, as cited in Ashforth, 2001).

The argument for the pendulum effect is that individuals tend to become more habituated to the positive qualities of the status quo than to the negative qualities. Through repeated exposure, the positive qualities come to seem normal and expected; less a privilege and more a right. Thus, unless a role's attractive qualities are at least periodically reaffirmed (e.g., via social comparison or periodic celebrations), they tend to become somewhat taken for granted and less salient. A certain complacency and even boredom may set in. Conversely, research on information processing (e.g., Leon, 1981) indicates that people attend and react more strongly to negative rather than positive information.

Although a role's unattractive qualities may also come to seem normal and expected, they remain salient if they are viewed as an ongoing problem. Indeed, issues that were first ignored or tolerated may begin to be serious problems if the status quo persists. This shift in salience results over time in a shift from a predominantly positive attitude toward the role to a more negative attitude.

As either burnout mounts or the pendulum begins to swing, one becomes more inclined to interpret ambiguous events in a critical light and less forgiving of perceived slights. Goodwill accumulated earlier may be gradually exhausted such that one is less willing to ignore seemingly negative incidents.

What makes burnout and the pendulum effect insidious is that the status quo may not necessarily have changed. Instead, what may once have been regarded as generally positive now seems more negative.

#### IMPROVING THE SITUATION

Role occupants experiencing first doubts are inclined to try to cope with the situation and address their concerns. However, according to Ebaugh (1988) such attempts are less likely to be successful if

1. the individual has little power, or little willingness or ability to wield power,
2. the individual is unsure of how to improve the situation,
3. the situation is institutionalized so that members of the role set are not sympathetic for the individual's desire for change, or the situation, even if it was successfully changed, simply regresses to the prior state, and
4. the doubts are so many that idiosyncratic changes seem pointless.

If the situation can not be improved for whichever of these reasons, the process of role exit is likely to continue.

#### ESCALATION OF DOUBTS

As first doubts arise, the individual may revisit his or her role history, looking for signs of confirmation of the doubts. If found, these may solidify to an extent that the individual becomes less receptive to signs of disconfirmation and actively *seeks* confirmation (Ruble, 1994). Indeed, critical events are often retrospectively inferred, assuming greater significance in hindsight than when they occurred.

Once an individual is psychologically committed to exit a role, he or she becomes inclined to interpret and reinterpret circumstances in a way that supports the decision. Incidents that have aroused little notice earlier suddenly gain meaning. Ebaugh (1988) describes how physicians who had earlier seen challenging cases as inherently stimulating came to see such cases as examples of the annoyance and stress of medicine once they began to entertain thoughts about leaving the field. Moreover, the escalation of doubts may spread from a specific focus—such as one's superior or special tasks—to a more generalized negative view of the role and organization.

What makes this escalation process dangerous is that much of it emerges from the mind of the individual: as the process progresses, the subjective doubts may become less and less tightly coupled to current objective conditions. The process of convincing oneself that it is in fact desirable to leave a role makes one susceptible to strong perceptual and sense-making biases.



The stronger the doubts become, the more motivated a person is to validate the doubts by finding reasons to leave.

Farkas and Tetrick (1989) found in a three-wave longitudinal study of U.S. Navy enlisted personnel that once the intention to quit or stay crystallizes, job satisfaction and organizational commitment are either reduced or increased in a way that the intention is bolstered. This finding is consistent with predictions of the cognitive dissonance theory (Festinger, 1964), in the sense that a high job satisfaction is dissonant with the intention to leave this job.

Objective conditions may even be *improving* as doubts are becoming stronger (Farkas & Tetrick, 1989). This suggests that an individual is most likely to be receptive to reality testing and information about the environment early in the escalation process when emergent doubts are still ill-formed and the individual is yet reasonably impartial.

However, managers often fail to notice or deal with an employee's escalating doubts until they appear to be threatening the health of the relationship. Because of the incessant and often unpredictable demands of management, many managers come to operate rather reactively than proactively.

Moreover, it may be difficult for a manager to justify devoting resources to an issue until it has become defined as an organizational problem (e.g., a threat to quit). This same critical threshold, however, may signify that the individual has already withdrawn from the job once the problem is addressed. As a result, organizational attention and resources are often brought to bear *after* the point where they could have reversed the process (Ashforth, 2001).

Ebaugh (1988) suggested that first doubts are associated with various cues, intended or unintended behavioral signs that commitment is flagging and that a change may be desirable. For example, some of the ex-nuns that Ebaugh interviewed remarked that they wore their hair long and stylish, contrary to the traditional convent customs. Individuals may engage in such behaviors for at least two reasons:

1. First, overt acts of deviance may precipitate a response from the organization, thus bringing the issue to a head. By forcing the confrontation, individuals force a potential resolution of their ambivalence. If they are dismissed, they are forced to at least ponder their misgivings.
2. Second, following self-perception theory (Bem, 1972) overt behavior provides indicators for the individuals themselves that can retrospectively be interpreted as evidence of their flagging commitment by both themselves and others. For example, a meta-analysis by Mitra, Jenkins, and Gupta (1992) yielded a corrected average correlation of .33 between absence and turnover. The authors interpret this as an progression in withdrawal, or in the *inference* of withdrawal.

In short, the doubters are building a case against their own current social identity.

In fact, Ebaugh found that once the decision to exit a role was made, her interviewees were inclined to retrospectively find cues in their previous behavior to justify the need for change. It was common for interviewees to point out early cues as a way of demonstrating that they were unhappy in their roles long before they made a conscious decision to leave. Such cues may or may not have actually been caused by unconscious doubts. The important point is that whatever their cause, the cues were retrospectively interpreted to have been prompted by such doubts.

#### SOCIAL VALIDATION AND INVALIDATION

The escalation of doubts tends to be moderated by social processes in the sense that validation strengthens doubt and invalidation weakens it. Since roles are embedded in often dense role networks, and role occupants often form strong personal bonds through these networks, the opinion of certain role set members may matter a great deal. Thus, individuals experiencing doubt may actively seek and be particularly receptive to the opinions of their valued social partners.

Based on her interviews, Ebaugh (1988) proposes that the sharing of doubts serves several purposes:

1. First, it enables reality testing. By its very nature, doubt renders an issue suspect, so that doubters often fear that they had a biased viewpoint. They feel that they could better assess the truth of their emerging beliefs by comparing them to the perspectives of trusted others who were somewhat more distanced from the issue.
2. Second, others could provide concrete advice, such as advice about alternative jobs.
3. Third, expressing doubts serves a signaling function (Breese & O'Toole, 1995). The very act of going into public gives weight and clarity to the doubts. As self-perception theory suggests, the act of publicly articulating the doubts informs the doubter and the audience alike that the doubts must have reached some level of severity.

Depending on the reaction of other relevant persons, the initial doubt may be weakened or strengthened. From the moment, however, that the doubts have escalated, individuals are inclined to seek out others who are likely to reinforce their doubts.

In sum, the doubting process looks, according to Ebaugh, much like a snowball gaining momentum as it runs downhill. After a certain moment, the momentum is such that the individuals are predisposed to seek and find confirmation for their doubts, creating a self-fulfilling prophecy. However, it is important to note that Ebaugh found wide variance in the duration of this escalating process. She found that the duration is longer,

- the smaller the degree of the individual's conscious awareness of doubts,
- the smaller his or her perceived control over the exit process,
- the smaller the degree to which doubting is externally attributed,
- the less the doubts are shared by one's peers,
- and the less they are validated by relevant social partners.

### **Stage 2: Seeking and Weighing Alternatives**

Ebaugh suggests in her model that, as doubts crystallize, individuals start to seek and weigh alternatives. A person's wishes and desires (i.e., what possible selves one wishes to realize) as well as the constraints of what is feasible determine what kind of alternatives are considered. Knowledge of specific alternatives can sometimes galvanize doubt by creating a salient contrast with the status quo. For example, knowledge of a friend's job may show a person what would be possible and cause him or her to reappraise the own job.

In Ebaugh's study, the degree of rationality involved in stage 2 varied widely. She found that in most cases the process of comparing a current role with other role options "took place in a vague and on-and-off way over a period of years until the pressures mounted or events occurred which significantly altered the perceived advantages or disadvantages of either the current or the alternative role" (Ebaugh, 1988, p. 96).

She found that only 6% of the participants (12 of 185 persons) had left a role without considering any alternatives.

It seems probable that individuals will be *less* likely to actively consider work alternatives if:

1. they are reacting to an intolerable status quo where even an uncertain future is preferable to the odious present,
2. the transition is thought to be reversible or of low magnitude,

3. they are highly confident that they can secure a satisfactory alternative (e.g., having high efficacy belief, relying in a high demand for employees, having reliable job contacts),
4. they do not regard work as a central life interest, and,
5. they are buffered during the transition by financial resources and social support (Ashforth, 2001).

Although these predictors are additive, there are likely to be associations among them (e.g., individuals who do not regard work as central for their lives are less likely to have financial resources).

### **Stage 3: The Turning Point**

Ebaugh (1988) found that, even with concrete alternatives at hand, the vast majority of her interviewees experienced an abrupt and dramatic turning point in their decision making process, which triggered the explicit act of leaving. She defines a *turning point* as “an event that mobilizes and focuses awareness that old lines of action are complete, have failed, have been disrupted, or are no longer personally satisfying” (Ebaugh, 1988, p. 123). A turning point usually culminates in an external expression of an intention to exit, for instance a letter of resignation.

As with the first doubts in stage 1, turning points are usually triggered by precipitating events, whether disappointments, external changes, milestones, impending events, or internal changes. Whether large or small, multiple or single, simultaneous or sequential, precipitating events symbolize and crystallize one’s ambivalence. Even an otherwise insignificant event may be perceived as the “last straw”, occurring at a point when a person is ready to make a decision.

The events may also provide a convenient excuse for leaving a role. Because roles are embedded in role networks, an individual who wants to abandon a role is normally very concerned about how valued members of their role set may interpret the exit. Thus, Ebaugh points out how physicians justified their role exits with their health problems and police officers took injuries as justifications for exiting their professions because these issues were viewed by their respective role sets as socially acceptable reasons to quit.

A role exit may also *begin* with a turning point and thereby pass the stages of first doubts and seeking alternatives. However, as Ashforth (2001) points out, in the absence of first doubts, an event must be interpreted as highly momentous and meaningful in order to trigger a spontaneous exit.

### FUNCTIONS OF TURNING POINTS

Ebaugh (1988) sees three functions of turning points:

1. They become the focal point for announcing one's decision to exit. Ebaugh found that many of her interviewees made their announcement within days of the event that finalized their decision. The act of publicly announcing one's decision further commits one to the exit. Moreover, supporters offer assurances that the decision is correct, and critics require the articulation of justifications—both of which reinforce the decision further.
2. Turning points also help to reduce cognitive dissonance. Given the escalation of doubts and the knowledge of viable alternatives, the individual tends to be, as noted before, in an anxiety-provoking state prior to the turning point. Turning points resolve doubts to the point where the individual feels able to make and declare a decision. However, the ambivalence is seldom resolved completely because most roles represent a complex package of costs and benefits. The decision-making process itself may even cause one to recognize the potential benefits linked to the role environment that are now foreclosed (cf. Bell, 1982; Loomes & Sudgen, 1982; Loomes & Sudgen, 1987).

Thus, the individual is inclined to look for information that is consonant with the decision of abandoning a role (Festinger, 1964).

3. An other function of turning points is that they help to mobilize the necessary energy and resources to carry an individual through the process of leaving a role.

### rites of passage: separation

Rites of passage facilitate role transitions in general, and can be helpful for role entries as well as exits. In particular, they can facilitate disengagement from a role (Ashforth, 2001; Ebaugh, 1988). Disengagement can be difficult for two major reasons:

1. A person defines him- or herself to some extent in terms of the role. The greater one's role identification, the more does the role identity specify one's very sense of self.

Furthermore, a person is defined by others in the organizational context largely by the role one plays. Individuals in organizations tend to

meet initially in the function of role occupants while fulfilling their role obligations. Thus, *interpersonal* relationships tend to be built initially on *inter-role* relationships, even if they grow beyond that in the course of the development of the relationship.

Consequently, a role exit often jeopardizes the very basis and understanding of the relationship.

A major function of rites of separation is to foster a redefinition of the individual as an *ex*role occupant—providing a natural breakpoint for either giving up a relationship or redefining it so that it may be continued on an other basis.

2. Another reason why role disengagement can be difficult is that reasons are seldom perceived by their occupants as only good or only bad. Roles are comprised of many attributes—social networks, tasks, rewards, and so forth—that provide various kinds of costs and benefits. Thus, even when one is leaving a generally undesired role, there are often mixed feelings. For example, Schmid and Jones (1993, as cited in Ashforth, 2001) found that prison inmates felt often ambivalent about their impending release from prison.

The stronger one's identification with the role and one's cohesion with members of the role set, and the more difficult and negatively valued the anticipated transition, the more likely that one will experience a deep sense of loss—even if the exit is voluntary (Archer & Rhodes, 1995; Fein, 1990). Thus, rites of grief and mourning might help to explain the psychological and social utility of rites of separation. Unfortunately, despite their popularity, empirical assessment of stage models of grief and job loss is difficult to realize, and the existing evidence is so far inconclusive (Freeman, 1999).

#### **Stage 4: Creating an Exrole**

Ebaugh (1988) pointed out that the physical role exit does not complete the exit process. The process of becoming an “ex” is part of the process of role exit, and this involves tensions between one's past, present, and future. To be an ex is of course very different from never having been a member of a particular group or role set.

Individuals generally desire to retain aspects of their prior role that are socially desirable, that are expected to facilitate subsequent role transitions or adjustment to life in general, and that are prized or fondly recalled for their own sake. Conversely, individuals generally desire to shed those aspects

that are socially undesirable, that are expected to impair future transitions and adjustment, and that are disliked or conjure bad memories (Ashforth, 2001; Ebaugh, 1988).

#### FACTORS AFFECTING THE EASE OF CREATING AN EXROLE

Six factors have been named that affect the ease or difficulty with which an exrole is created (Ashforth, 2001; Ebaugh, 1988): Two situational factors, magnitude of the transition and visibility of the role or transition; and four individual difference variables, role identification, sentimentality, nostalgia, and coping resources.

##### 1. Magnitude of the Transition

The magnitude of transition may simultaneously ease and impair the creation of an exrole. High magnitude transitions such as a shift to a very different kind of work, or also retirement, are more difficult to accomplish than role transitions inside the same organization, because the gulf between the old and the new role identities and contexts is so wide for high-magnitude transitions. It is difficult to for instance transfer what one has learned from the old to the new and to retain those aspects of the old that one values.

Individuals must actively work to reaffirm valued features of the old role identity and to maintain social connections to the members of the old role set (which is also the purpose of alumni associations, veteran's groups, or associations of retirees of the same organization).

At the same time, however, the wide gulf makes it somewhat easier to distance oneself from the aspects of the old role that one wishes to reject.

Conversely, low-magnitude transitions such as a promotions from vice president to senior vice president are less difficult to realize, and they make it easier to actively maintain valued features of the role identity and contact with members of the old role set.

However, the very overlap in role identities that facilitates the transition may create some blurring of the roles, and thus can make it more difficult to distance oneself from undesired aspects of the old role. For example, a newly promoted manager may find it difficult to deal with her former peers now in a superordinate-subordinate relationship.

## 2. Visibility of the Role Transition

The more visible the role prior to the transition, the more susceptible is one to the judgments and intrusions of others. For example, Ebaugh (1988) found that former occupants of highly visible roles such as opera singer, astronaut, and professional athlete had a particularly difficult time extricating themselves from their former roles. Presumably, their celebrity status was highly salient to people in the public, leading to intrusive questions and conversations and making it difficult for these individuals to distance themselves from their roles.

## 3. Role Identification

It was argued earlier that role identification may act as a brake in the process of role exit. Regarding stage 4, identification may ease or impair the creation of an ex-role, depending on the situational specificity of the identity. The more specific the identity, the less readily can one generalize one's identification to other social identities. Thus, the experience of exiting an occupation, work group, or organization with which one strongly identifies tends to be traumatic (cf. Taylor & Cook, 1995). In such cases, strong identification may make it difficult to exit the role and create an exrole.

Cassell (1991, as cited in Ashforth, 2001) commented on the reluctance of many surgeons to retire:

Surgeons have invested too much in becoming and being surgeons to contemplate giving it up with equanimity. ("I feel like an amputee!" confided a surgeon who had recently retired.) Many surgeons find it difficult to cut back, to operate less frequently, or to confide themselves to less interesting, less challenging procedures. And, as patience and judgment falter, a surgeon's arrogance may fill the void (p.147).

Ashforth observed that is often quite painful for members of the role set to watch someone "hang on too long", denying that their capability of executing their job, or also their commitment is decreasing.

Conversely, the more generic the identity, the more readily can a person transfer his or her identity to other roles. The transferability of the identity greatly eases the role exit by enabling a person to continue to derive fulfillment after the exit.



#### 4. Sentimentality and Nostalgia

*Sentimentality* is the tendency to retain emotional or tangible ties to one's past (e.g., memories, old friends), and to derive pleasure from discussing or reliving one's past, whereas *nostalgia* is a longing for a fondly remembered past (Mael & Ashforth, 1992).

Both concepts suggest a desire to at least periodically reaffirm previous attachments. In the short run, sentimentality and nostalgia may render one less willing to exit a role and make an exit more painful once the decision to leave has been made. In the long run, however, sentimentality and nostalgia may serve as transition bridges by:

- (a) encouraging a person to properly grieve the loss of the role, which will enable him or her to move on,
- (b) providing a sense of continuity between the past and the present, and
- (c) providing a sense of confidence for the future.

However, it seems likely that if the role contrast is great, nostalgia—though not sentimentality—may represent more of a retreat into a by-gone past than a source of confidence for the future.

#### 5. Coping Resources

The easiness of the process of creating an ex-role can also be influenced by:

- (a) psychological resources (e.g., self-esteem or optimism),
- (b) social resources (e.g., instrumental and expressive doubts), and
- (c) organizational resources (e.g., outplacement counseling and referral services).

#### LIMINALITY

Gennep (1960, originally published in 1908) and Turner (1969) have introduced and developed the concept of the *liminal phase* or *liminality*, from *limen*, Latin for threshold.

In the liminal phase, the role identity of the individual is ambiguous: the person has disengaged from one role or possibly multiple roles—such as job holder, work group member, organizational member, and so forth—but has not yet engaged in new roles. Thus, the individual is without role in that

specific social domain. (The person retains, however, a store of other roles and associated social identities, like the role of family member, parishioner, friend, and so forth.)

Turner writes about *liminal entities* that they are “neither here nor there, they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonial” (Turner, 1969, p. 95).

Ashforth (2001) adds that liminality, framed as a *psychological concept*, refers to the *experience* of this “betwixt and between” state, that is of this state of being roleless. As such, this experience is not tied explicitly to physical role exits.

Ebaugh (1988) found that 75% of the persons participating in her study experienced this kind of vacuum either already right before the decision to exit or shortly after, when they realized that leaving the role was very likely.

Ashforth (2001) argues that even disidentification provides some sense of self-definition, in the sense that one is *not* what the role identity implies. Thus, the role becomes a foil for defining the self, providing, even through disidentification, some sort of tie to the work setting. In this line of argument, Ashforth asserts that liminality exists when a person lacks or soon expects to lack an actual role in the given social domain, or has a role but lacks even a modest identification—or disidentification—with it and does not expect to identify or disidentify with it. As such, liminality is the absence of self-defining connection to a given social domain, which means also indifference toward identification with that social domain.

In the work domain, the social psychological dynamics of liminality are probably most evident in cases of job loss and retirement. Full retirement, although usually voluntary, represents the loss of a work role identity along with the daily structure, social network, and status and perquisites of employment. For example, Erdner and Guy (1990) found that work role identification was negatively associated with attitudes toward retirement.

According to Ashforth, the experience of liminality depends largely on the value one places on the relevant social domain and on what is expected to come next. If a person anticipates the assumption of a new role in the same social domain within a personally and socially acceptable time frame, then liminality may even be experienced positively. The anticipation of a new role will give the members of one’s former role set a firmer basis for interaction: Roles serve as important identity badges, enabling others to locate a person in the social domain and develop preliminary perceptions and expectations of this person. In the absence of defined roles, there is less reason or opportunity to interact in any given milieu and less basis for developing initial perceptions.

If an individual anticipates a new role, then members of his or her role set are able to relocate this person in the social domain and, if they so choose, are able to re-knit their interrole and interpersonal relationships on that basis.

On the other hand, if one does not anticipate assuming a new role within that social domain within a socially and personally acceptable time frame, then liminality may be experienced very negatively. Ebaugh's interviewees described this liminal phase as a "vacuum", as feeling "in mid-air", "ungrounded", "neither here nor there", or "nowhere". Without anticipatory identification, one has no basis for locating or anchoring oneself—nor for others to locate one—in the current social domain. One is no longer a member and has no role-related basis for interaction. Indeed, in the case of work-based roles, one has no reason for remaining in the organizational context. Thus, the ongoing affirmation process on which role identities depend is disrupted. If the social domain is highly valued, the result may be a sense of disorientation (loss of identity), meaninglessness, lack of control and belonging, and perhaps depression (Ashforth, 2001; Ebaugh, 1988).

### 3.3.2 An Expansion of Ebaugh's Model by Ashforth

The role exit model of Ebaugh (1988) explained voluntary role exits that have been caused mostly by push-forces. In the 2x2 matrix in Figure 3.2 this corresponds to the upper left cell.

		Locus of Change	
		Intrarole (push forces)	Extrarole (pull forces)
Voluntariness of change	Voluntary	Resignation, Retirement (as escape from the work role)	Resignation, Retirement (as attraction to other roles and activities)
	Involuntary	Individual termination Mass layoff	Role progression Failing health

Figure 3.2: Origins of role exit (Ashforth, 2001, p. 111).

Ashforth (2001) expanded Ebaugh's model by considering also involuntary role exits and exits caused by pull-forces.

### Involuntary Role Exit

This section focuses on the involuntary push forces cell of Figure 3.1, leaving the voluntary as well as involuntary pull-forces cell to the next section.

In the context of involuntary role exits, push forces refer to those factors indigenous to the role or its enactment that prompts an exit, such as poor performance leading to an individual's termination or an excessive number of role occupants—as perceived by management—leading to a layoff.

A model of involuntary role exit is summarized in Figure 3.3, incorporating a revised ordering of Ebaugh's four stages. For involuntary exits, much of the process occurs *after* the physical exit.

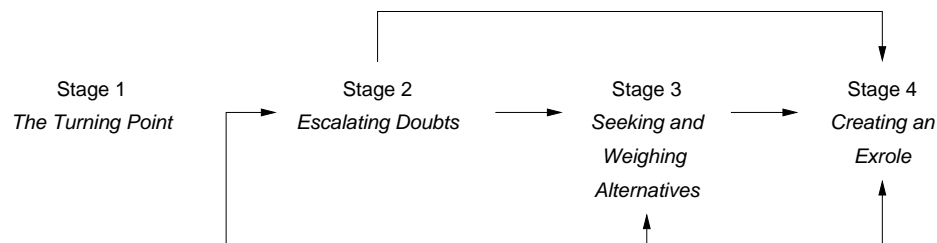


Figure 3.3: The phenomenology of involuntary role exit (Ashforth, 2001, p. 143).

- The notice of termination is the de facto *turning point* and beginning of the model. The notice triggers attributional processes as individuals attempt to make sense of what is happening. Given self-serving biases, individuals are predisposed to attribute blame rather to external causes—e.g., to incompetent management—than to internal causes—e.g., poor performance—(Ashforth, 1992, as cited in Ashforth, 2001; Andrews, 2001; Sedikides, Gaertner, & Toguchi, 2003; Silvia & Duval, 2001).
- Moreover, individuals are likely to attempt to distance themselves from the role—or at least the organization—as a means of controlling their distress at the loss. The upshot of these tendencies is the *escalation of doubts*.
- The fact of role exit (the turning point) in conjunction with escalating doubts in turn causes individuals to *seek and weigh alternatives*.

Figure 3.3 shows the turning point and doubts exerting independent effects because the exit may force individuals to seek new roles regardless of whether they are experiencing retrospective doubts about their prior role or organization.

- Finally, the turning point in conjunction with the doubts and new alternatives may help individuals in *creating an exrole*. The fact of exit, the growing of retrospective doubts, and the consideration of concrete alternatives each help individuals to come to terms with their former role and the involuntary exit.

In addition to the revised ordering of Ebaugh's model, the model of involuntary role exit differs in three key ways from that of voluntary exit.

1. Involuntary exits from push forces tend to be stigmatizing, creating the additional burden of coping with the weight of shame (Ashforth & Humphrey, 1995, as cited in Ashforth, 2001).
2. Involuntary exits often come with little or no advance warning, creating the additional burden of shock and distress (Leana & Feldman, 1992).
3. Because of these two factors, individuals must often exit one role with no clear alternatives in sight, exacerbating the sense of discontinuity and liminality that often accompanies role transitions—particularly if the individuals are compelled to find work in other occupations or industries.

The upshot of these three factors is that involuntary exit often constitutes a significant threat to one's identity and sense of meaning, control, and belonging.

Consequently, as shown in Figure 3.3, the impact of each stage of the involuntary exit process is not fully mediated by the intervening stages, as in the model for voluntary exit. For example, the turning point (here stage 1) exercises both direct and indirect effects of all subsequent stages. In voluntary exits, individuals usually take a more reflective approach, moving more or less methodically from first doubts, to seeking and weighing alternatives, to the turning point, to creating an ex-role. However, in involuntary exits, the often unexpected displacement forces individuals to try to make sense of and adjust to their changed circumstances while simultaneously attempting to exit one role and enter another. This shock and truncation of time may create a mixture of emotions and actions so that the impact of the four stages is telescoped and deranged.

### Pull Forces

In reality, most voluntary transitions are a combination of push and pull factors. Push forces foster a desire to seek and weigh alternatives, thus helping to pull an individual out of a role. As noted earlier, only 6% of Ebaugh's interviewees exited without considering alternatives. Similarly, an initial set of pull forces, such as the unexpected perspective for an other job, may cause one to reflect on the status of the current role, fostering dissatisfaction and thereby pushing one toward role exit. Indeed, it might be argued that there is no such thing as a pure case of voluntary role exit caused by pull forces. Pull forces exert their power precisely because they represent an opportunity not found in the current role.

In the case of *involuntary* transitions, however, pull forces provide no opportunity to remain in the current role. For example, turning down a promotion or transfer may imperil one's stand in the organization, and failing health may impair one's ability to perform effectively. There are two major forces of pull factors:

- factors extrinsic to one's career, such as failing health or a spouse who is transferred, and
- factors intrinsic to one's career (but, by definition, extrinsic to the current role *per se*), such as a promotion or role progression

The social-psychological dynamics for pull forces *extrinsic* to one's career are similar to those discussed for involuntary transitions prompted by *push forces*, except that the attribution of causality tends to be much clearer.

In contrast, involuntary exit prompted by pull forces *intrinsic* to one's career is eased considerably by three factors:

1. The transition is usually socially acceptable if not desired. Thus, the sting of loss may be cushioned by the anticipated challenges and gain in status and perquisites
2. The transition has often been expected (although the specific job and location may not have been), thereby allowing some anticipatory identification with the future role and anticipatory deidentification from the current role.
3. Given that the future role is likely to build on the lessons of the current one, an individual's role identification may generalize quite easily to

the future role—although the loss of his or her work group and other attachments may continue to cause distress. For example, an apprentice mechanic may exit the apprentice role quite seamlessly.





## Chapter 4

# Development of Self-Definition Domains and Identity Diversity after Retirement

I know that I exist; the question is,  
what is this 'I' that I know?

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*René Descartes (1641)*  
Meditations of First Philosophy

Has de poner los ojos en quien eres,  
procurando conocerte a ti mismo,  
que es el más difícil conocimiento  
que puede imaginarse.

---

*Miguel de Cervantes (1615)*  
Don Quijote

### 4.1 Introduction

Retirement seems to be a crucial moment in the process of growing older since it is generally viewed as a point in time where older age begins (cf. Borscheid, 1994; Braun, 1992; Filipp & Mayer, 1999). Furthermore, the profession provides a strong identity throughout our working time. The question arises of what happens to that vocational identity once the profession is not practiced anymore. And—more generally—how people in that

age around the retirement view themselves; and if they change their identity in any way.

Research on identity development has so far dealt primarily with other age groups. There is for instance a ten-year longitudinal study of Keupp et al. (1999) with adolescents and later young adults. Tesch-Römer (1989) has investigated identity transformations with middle-aged adults. For older adults there is an investigation by Pinquart (1998) on the self-concept, where the central issue was the self-assessment—the question how positive or negative the self-concept of a person in that age was, and what factors of influence could be determined. The present study, though, addresses rather the question if the *contents* of identity change, that is, what domains of the personal identity get more or less important during the transition to retirement.

There is a vast body of philosophical literature discussing the definition of *identity* or *self*, a small part of which was addressed in the first chapter of this book. However, authors of empirical studies dealing with identity did mostly not provide any definition of the concept at all, or if they did, the definitions were very unsatisfying. Keupp (1998) for example, who presented extensive investigations on identity development, did not even stop at an obviously circular definition of identity: “Identity is a project aiming at the creation of an individually desired or needed ‘sense of identity’ ” (Keupp, 1998, p. 34, translated by the author).

Given the fact that I did not find a theoretically acceptable and empirically useful definition in literature on self and identity, I will here assume a very pragmatic position and merely define *identity* as *self-description* or *self-definition* (terms that I will use synonymously), since this is the only aspect of identity that I could acquire empirically.

In this chapter, a special focus will be placed on the development of the respondents’ professional identity after retirement and their self-definition as retirees. Another aspect that will be addressed is the question how identity diversity is linked to life satisfaction for retired persons. Additionally, three rather explorative issues will be addressed: (1) the question what effect the retirement has on different identity domains apart from the professional identity, (2) the question if and how the importance of these different identity domains change with increasing age, and (3) the question what kind of changes people perceive in their own persons due to higher age.

### 4.1.1 Professional Identity and Retiree Identity

According to the social identity theory (cf. Section 1.5.4), individuals categorize themselves and others as a means of ordering the social environment and locating themselves and others within it. Thus, categories are selected to provide meaningful distinctions between people or subgroups of people (Tajfel & Turner, 1986).

Tajfel argues that because social categories are differentially valued within a culture, social identities also carry varying degrees of positive and negative values for the self. Individuals obtain an assessment of their in-group's value relative to an out-group through social comparison processes. Tajfel assumed that humans need positive and distinctive group identities, from which individual self-esteem and a sense of personal value can be derived.

Thus, if the group to which an individual belongs is less highly valued than relevant out-groups, the individual becomes motivated to either leave the group or improve the group's standing.

Research in the field of stereotypes towards elderly people and images of aging show that higher age is very often associated to negative attitudes (a very differentiated review of this field of research is given e.g., by Filipp & Mayer, 1999).

The beginning of higher age can be dated in very different ways, since age is a blurred category. Borscheid (1994) pointed out that in pre-industrial societies a biological understanding of old age was predominating, "old age" being defined as an increase in frailty—as a summoner of death. Thus only those persons were seen as "old" whose physical and mental strength had decreased, and not necessarily those who had passed a certain calendric age.

In the meantime, this biologically oriented concept of age has been replaced by a social-political concept, where the beginning of higher age is essentially defined by regulations of the statutory pension insurances, and accordingly by leaving the workforce (cf. Borscheid, 1994; Braun, 1992).

This understanding could be confirmed in interview studies where participants were asked to rate the beginning of "being old". Babladelis (1987) reports average ratings around 60 years, Harris, Page, and Begay (1988) reports an age range of 65–69 years, where, according to the participants, people begin to be old<sup>1</sup>. These age limits correspond in our society to the

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<sup>1</sup>In these studies the participants were students, that is, rather young persons. The picture changes when older people are asked about the beginning of old age. In an interview study by Oswald (1991), for instance, male participants aged 63–96 years rated the beginning of "being old" on average at the age of 72 years. At the same time, *none* of the participants rated himself as "old". An own empirical analysis of this phenomenon will be

age when people leave the workforce rather than to the age of frailty or physical and mental decline, and thus mirror a social-political rather than biological definition of higher age.

These considerations imply that retirement is probably not viewed as an especially attractive social category, since it is linked so tightly to the category of higher age, and higher age is generally viewed rather negatively. According to the social identity theory, we can therefore expect that people will *not* view their status of being retired (and accordingly the fact that they have left the workforce) as an important aspect to define themselves. I assume therefore that the professional identity remains an important aspect of self-definition even after retirement, and is not replaced by a retiree-identity.

At the same time, we can assume that the attitude towards old age has an influence on the readiness or reluctance with which people accept a self-definition as “retirees”. If their personal view of old age is positive, we can expect them to see their “retiree-identity” as a more important aspect of themselves than if they have a negative view of old age.

This leads to the following empirical hypotheses:

**Hypothesis I:** Retired persons will rate their former profession as more important to characterize themselves than their status of being retired.

**Hypothesis II:** The persons’ attitude towards old age predicts the extent to which they view their status of being retired as important to define themselves. Participants with a positive view of old age will therefore rate their status of being retired as more important than persons with a negative view of old age.

From the social identity theory we can further derive a prediction regarding the importance of an individual’s professional identity: According to the theory’s assertions, we can assume that the more positive a person’s profession is valued by society—thus carrying a positive value for the self—the more that person will define him- or herself in terms of his or her profession.

The following empirical hypotheses can therefore be formulated:

**Hypothesis III:** A person’s self-rated professional status is a significant predictor for the importance that this person accredits to his or her professional identity.

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provided in the next chapter on *age identities*.

**Hypothesis IV:** The professional status is a better predictor for professional identity than other job-related demographic and psychographic measures.

### 4.1.2 Identity Diversity as a Predictor for High Satisfaction

According to Linville (cf. section 1.3.1), individuals have a higher self-complexity to the extent that they use multiple self-aspects in defining themselves, and to the degree that these aspects are independent of each other, that is overlap minimally (Linville, 1985; Linville, 1987; Linville & Carlston, 1994). Linville suggests that greater dimensionality serves as a buffer against stress-related illness and depression by providing alternative focuses of attention following a stressful event, while greater distinctiveness prevents the spread of activation from one aspect of the self to other aspects that are associated with it through shared attributes. Conversely, low dimensionality and low distinctiveness are seen as risk factors for adverse outcomes. Consistent with these predictions, in Linville's (1985, 1987) studies individuals with low self-complexity had more extreme affective reactions following a failure experience and displayed greater variability in affect over an extended period, whereas subjects with high self complexity were less prone to depression, perceived stress, psychosomatic symptoms, and illnesses following stressful events.

The disengagement theory however (cf. section 2.1.1) asserts that older adults are most satisfied if they disengage from society and find a new balance with less roles and role identities than when they were younger.

An objective of this study was therefore to verify which of those competing theoretical approaches are more appropriate to describe the identity development of older persons. Thus the research question was if a high identity diversity has positive implications also for older adults (which would suggest that the self-complexity theory applies also for older adults) or if in higher age less identities are more favorable (which would speak for the disengagement theory).

The following empirical hypothesis was derived from the self-complexity theory:

**Hypothesis V:** Persons who rate many identity domains as important for their self-definition (i.e., who have a higher identity diversity) will state a higher level of life satisfaction.

### 4.1.3 Explorative Issues

In addition to those hypotheses three rather explorative questions will be addressed in this study:

1. What effect does retirement have on personal identities (apart from the professional identity); or in other words, what domains of self-definition are more or less important for retirees than for not yet retired persons?
2. To what extent can age or cohort predict the importance of domains of self-definition?
3. What kind of changes do people perceive in their own person due to higher age?

The first two explorative questions were addressed by means of the questionnaire data, whereas for the third the qualitative findings of interviews were analyzed.

## 4.2 Method

### 4.2.1 Participants—Characteristics of the Sample

#### I. Explorative Preliminary Inquiry

The first part of the study consisted of explorative interviews with 13 persons; six men aged 56 to 67 years ( $M = 62.33$ ,  $SD = 4.18$ ) and seven women aged 55 to 66 years ( $M = 62.29$ ,  $SD = 3.86$ ).

The interviews were realized by five interviewers, and the participants were all recruited out of the personal acquaintances of the interviewers. However, in order to assure the highest possible anonymity in such circumstances, each interview was realized by one one of the other interviewers who were *not* acquainted with the participant.

The education level of the interviewees was on average rather high, and with an over-representation of social professions. The sample comprised:

- four teachers of secondary school level; all retired
- a music teacher; retired
- a farmer's wife <sup>2</sup>; retired (the son having taken over the farm)

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<sup>2</sup>The profession of a *farmer's wife* ("Bäuerin") is in Switzerland a vocational qualification which is different from the qualification as *farmer* ("Bauer" or "Landwirt").

- a social pedagogue/catechist; not retired
- a psychiatrist; not retired (planning to keep his practice until 70)
- two career-counsellors; not retired
- a director of a nursing home for old people; retired
- a secretary; retired
- a social worker/family counselor; not retired

## II. Questionnaire Survey

In the second and principal part of the study a questionnaire was sent to a random sample of 2000 persons<sup>3</sup> aged 58 to 70 years who have their residence in Thun (a town in Switzerland with around 40'000 inhabitants). The random sample of addresses was drawn by the municipal authority of Thun. 802 questionnaires were completed and sent back, whereof 6 arrived too late (i.e., after the statistical analysis had been realized), and 4 were excluded from the analysis because more than half of the values were missing. So the analysis included  $N = 792$  persons; 386 men and 406 women. This corresponds to a rate of return of 39.6%, which can be considered as high, given that the addressed persons had not been asked before if they wanted to participate and there was no reward or reminder letter afterwards. The age ranged from 58 to 70 years ( $M = 63.65$ ,  $SD = 3.77$ )

Specifications of further demographic properties of the sample are shown in Table 4.1.

### 4.2.2 Apparatus

#### I. Explorative Preliminary Inquiry

The preliminary inquiry was realized with open face-to-face interviews following an interview-guideline (see Appendix A).

The interview-guideline was constructed as open as possible, since the goal of these interviews was on one hand to determine what questions were most interesting and what issues were most important for the participants, and on the other hand to find concrete hypotheses for the subsequent main

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<sup>3</sup>Since some of the effects were hypothesized to be rather small, a power analysis suggested a sample size of around 500 persons (Cohen, 1988). The return rate of a questionnaire survey without incentives can in general not be expected to exceed 25%. Thus, the questionnaire was sent to a primary sample of 2000 persons.

	<i>N</i> Men	<i>N</i> Women
<i>Marital state</i>		
single	8	27
living in partnership	11	2
married	324	288
divorced	18	37
separated	8	12
widowed	12	37
answer missing	5	3
total	386	406
<i>Education</i>		
no vocational or higher education	36	92
apprenticeship	222	234
highschool/college	35	35
technical college	57	33
university	36	11
answer missing	0	1
total	386	406
<i>Retirement Status</i>		
not yet retired	162	186
retired	223	220
answer missing	1	0
total	386	406

Table 4.1: Specification of demographic sample characteristics

investigation where standardized questionnaires were used with a larger sample.

The interviews were therefore evaluated with a qualitative analysis that served as a basis for the development of the standardized questionnaire.

## II. Questionnaire Survey

The main part of the study consisted of a survey that was realized with a standardized questionnaire. The constituent questions or scales that are relevant for this chapter will be described below. The items have here been translated into English; for the original German version of the questionnaire see Appendix A.



## Operationalization of the Variables

### 1. Satisfaction

To measure the respondents' general life satisfaction there were ten items asking them how satisfied they were with different aspects of their life:

*How satisfied are you with the following life domains:*

- *your bodily fitness?*
- *the activities you carry out?*
- *your relationships to other people*
- *your interests*
- *your mental capabilities*
- *your esteem in society*
- *your esteem by your family and friends*
- *your physical attractiveness*
- *your financial situation*
- *your life in general*

For every item, there were five answer possibilities, from “*very satisfied*” to “*very dissatisfied*”. These ten items were joined to a scale by calculating the average of all the ratings.

### 2. Attitude Towards Higher Age

The respondents' attitude towards aging and older age was measured in two different ways:

- (a) There were three direct questions asking the respondents how positive or negative they judged life when one is around 75 years old or older than 80, and if they would like to get 100 years old provided that they remained healthy.

The midpoint values of the responses were averaged for all three items to obtain a scale score.

- (b) Additionally, the respondents were asked to rate the fit of the term “old age” with a list of positive or negative attributes:

*How well do the following characteristics fit to the term “old age”?*

- Interest

- Irritability
- Activity
- Dissatisfaction
- Enthusiasm
- Dispiritedness
- Anxiety
- Self-confidence
- Egotism
- Malevolence
- Dependency

There were five answer possibilities to rate every attribute: from “*suits exactly*” to “*does not suit at all*”. The items were partially recoded, so that all low scores corresponded to highly positive associations to the term “old age”. The midpoint ratings of the attributes were then averaged and joined to a scale.

The measure provides information as to how positively or negatively associated a respondent’s image of older age is.

### 3. Self-efficacy Belief

This study’s measurement of perceived self-efficacy relied on five items of the German Version of Jerusalem and Schwarzer’s (1981) General Self-Efficacy Scale (here translated by the author):

- *I always succeed to solve difficult problems if I try hard enough.*
- *In unexpected situations I always know what to do.*
- *I think I can cope well with surprising events.*
- *I always face difficulties with composure because I can deal well with problems.*
- *Whatever will happen, I will be able to cope.*

There were five answer possibilities to rate every statement: from “*I strongly agree*” to “*I strongly disagree*”.

### 4. Job Deprivation

The extent to which the respondents missed their former job or enjoyed their retirement was measured with the following nine items of the Job Deprivation Scale by Buchmueller, Dobler, Mayring and Schneider (1997):

*Which of the following statements do you approve when comparing your life since retirement with your professional life?*

- *I enjoy not having to turn up for work on time every day.*
- *I often miss the challenges of professional life.*
- *I am happy not to have to go to work anymore.*
- *I enjoy not being exposed to the pressure to perform anymore.*
- *I miss the contact to other people that I had during work.*
- *I miss the feeling of being a respected worker.*
- *I miss the regularity of my daily routine during my working life.*
- *I am happy that I don't have to argue with my colleagues anymore.*
- *I enjoy being able to plan my time more freely.*

Two items were in this study newly added to the scale:

- *I miss the purpose and meaning of life as it was given by my work.*
- *I miss the freedom I had because of my work away from home.*

There were again five answer possibilities to rate every statement: from “*I strongly agree*” to “*I strongly disagree*”.

## 5. **Measure of Identity (as in *Self-Definition*), Importance of Identity Domains, and Identity Diversity**

In identity research, there is one question that is frequently used to find out more about the personal identity of people. It is the open question: “Who are you?” (cf. Blasi, 1988; Blasi, 1995). Subjects are normally told to specify as many things as they can think of. Every answer is considered as part of the subject’s identity, in the sense of a *self-definition*.

In the explorative interviews we have asked the subjects that question in the very beginning, although it is a rather difficult question to start an interview with, being very open, and at the same time leading to possibly intimate answers. However, we considered it as important that the subjects answered that special question as freely as possible, and thus did not want to activate certain topics or subject-matters by asking other questions first.

But in order to give them a “second chance”, we came back to that question later on during the interview and asked them if they wished

to add things to their list, now that they had talked a bit more about themselves.

The answers of those oral interviews (which will be presented in more detail in section 4.3.1) helped us to elaborate relevant identity categories that we could use in a standardized question for the survey.

There were six domains that could be identified in the interviews:

- (a) Profession
- (b) Family roles
- (c) Friendship roles
- (d) Art, culture, hobby
- (e) Community functions
- (f) Personality, Values

In addition to these domains that we had found in the interviews we included the *status of being retired*, since the hypotheses I and II referred to the importance of this identity domain. We included also other identity domains that we thought might be relevant for a person's identity, like one's *nationality*, one's own *life story*, the *age*, and *bodily properties*.

Furthermore, *family roles* were split into *family* and *partnership*, *community functions* were split into *honorary posts / volunteer work* and *memberships of associations and organizations*, and we differentiated also between *personality traits* and *values*. Therefore in the definite version of the questionnaire we presented fourteen categories (or domains) of self-definition, where the respondents had to rate for every domain how important it would be for them to characterize themselves.

Thus, the standardized question read as follows:

*If you have to characterize yourself, which of the following points are important for you?*

- (a) *My nationality*
- (b) *My roles within my family (parent-, grandparenthood etc.)*
- (c) *My Partnership*
- (d) *My profession or occupation (for retirees: my former profession)*
- (e) *Honorary posts or volunteer work*

- (f) *Characteristics of my body / my appearance*
- (g) *Characteristics of my personality*
- (h) *My age*
- (i) *My life story*
- (j) *The associations and organizations I belong to*
- (k) *My circle of friends*
- (l) *My leisure time activities*
- (m) *My values or my belief*
- (n) *For retirees: the fact that I am now retired*

For each domain there were five answer possibilities ranging from *very important* to *not important at all*.

To measure *identity diversity*, the scores of the rated importance of each identity domain were averaged, thus allowing to differentiate between respondents who rated many identity domains as important and others who rated few domains as important.

## 6. Demographic Measures

Several demographic specifications were asked with direct standardized questions (see Appendix A):

- *Sex*
- *Year of birth*
- *Education level:*

There were six answer possibilities where the respondents were asked to indicate their highest achieved level of education, according to the Swiss education system. In addition there was the possibility for the respondents to write down their education level if they did not find it within the presented answer possibilities.

- *Professional status:*

The respondents were asked to indicate what kind of professional function they were holding at the moment, respectively, what function they had last held before retirement. There were nine answer possibilities:

- *not employed*
- *un-skilled employee*

- *semi-skilled employee*
- *position requiring a vocational qualification*
- *lower management position*
- *middle management position*
- *upper management position*
- *self-employed, small company/practice*
- *self-employed, large company*

Again, the respondents had the additional possibility to write down their function if it was not within the presented answer possibilities.

- *Duration of the last professional occupation in years*
- *Retirement status (retired vs. not retired)*
- *Duration of retirement in years*

### 4.2.3 Procedure

The preliminary *explorative interviews* were conducted within a project group<sup>4</sup>, with each member of the project group working as an interviewer. The interviews were realized at the house of the participants and took place between July 19th and September 21st 2001. The five interviewers had a guideline with open questions that were asked during the interview, but they were free in the detailed wording and order of the questions so as to give the participants enough freedom to bring up interesting themes. There was no training of the interviewers, therefore the standardization on the interviews was not warranted. The interviews took between 45 and 90 minutes ( $M = 68.05$ ,  $SD = 12.70$ ), and each conversation was recorded on audio-tape. The statements concerning personal identities were afterwards categorized and used to develop the standardized questionnaire.

The *questionnaire* was sent on the 29th April 2002 by mail to the 2000 randomly drawn citizens of Thun with an accompanying letter (see Appendix A) and a prepaid addressed response envelope. The receivers were asked to send back the completed questionnaire within about one week if possible, but were told that their responses were still very welcome and useful even if they were not able to meet the deadline.

The analysis of the questionnaire data was realized with SPSS (Version 11.0), COR (Version 1.1) by Staufenbiel, and G\*Power (Version 2.0) by Faul and Erdfelder. The statistical procedures used were t-tests for independent

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<sup>4</sup>R. Lüthi, H.-D. Schneider, U. Teuscher, L. Vögeli, and I. Wattendorff

or dependent samples, bivariate and partial correlations, multiple regression, z-tests for comparing correlations, power analysis and calculation of effect sizes  $d$ .

## 4.3 Results and Discussion

### 4.3.1 Evaluation of the Measurements and Scales

In the following section, the operationalization of the variables will be evaluated with regard to the reliability of the measurements.

Lienert and Raatz (1998) define the reliability of a test as the “grade of accuracy with which it measures a certain personality or behavioral characteristic, regardless of whether it claims to measure this characteristic (which is a problem of the validity)” (Lienert and Raatz, 1998, p. 9, translated by the author).

Probably the most frequently used procedure to determine the reliability of a scale is the calculation of its intern consistency (*alpha*-coefficient according to Cronbach). Bortz and Döring (1995) suggest that a reliability coefficient higher than .80 would be desirable. If the scale is not meant to differentiate between individuals but only between groups (which was the case for this study) alpha-coefficients of .50 and higher can be legitimate.

The specific quality of the constituent items regarding the scale can be tested by means of calculating their *corrected item-total correlation*, that is, the correlation of the specific item with the scale score (the sum of all the single item scores). A high item-total correlation means that the respective item provides a good differentiation between persons with high scale scores from others with low scale scores. Items with a low item-total correlation, on the other hand, generate information that does not correspond with the overall scale score. They can be regarded as poor indicators of the construct in question and should therefore be removed from the scale (Bortz & Döring, 1995).

The maximally achievable item-total correlation is 1; a value of 0 would have no predictive value at all. In test-statistic literature item-total correlations of  $r > .3$  are generally considered to be satisfying. Item-total correlation above .5 are considered as high (cf. Bortz & Döring, 1995, Diehl & Staufenbiehl, 2001). Very high item-total correlations, that is,  $r > .8$ , result only if the constituent items measure almost the same thing, which is not ideal with regard to a good covering of the construct. Moreover, it is not reasonable to formulate items in a way that they ask the same questions with only slight variations several times, since this can be annoying for the respondents, or

even lead them to the suspicion that they are being tested for consistency in their answers.

### Satisfaction Scale

Table 4.2 shows the items of the satisfaction scale with the means and item-total statistics.

Item:	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>How satisfied are you with the following life domains:</i>			
<i>your bodily fitness</i>	2.13	.57	.86
<i>the activities you carry out</i>	1.87	.68	.85
<i>your relationships to other people</i>	1.80	.60	.85
<i>your interests</i>	1.73	.62	.85
<i>your mental capabilities</i>	1.87	.57	.86
<i>your esteem in society</i>	2.04	.61	.85
<i>your esteem by your family and friends</i>	1.65	.62	.85
<i>your physical attractiveness</i>	2.25	.59	.85
<i>your financial situation</i>	2.14	.41	.87
<i>your life in general</i>	1.68	.64	.85

Table 4.2: Reliability analysis: means and item-total statistics for the measurement of satisfaction

The scale proved to be internally stable with Cronbach's  $\alpha = .86$ . All corrected item-total-correlations were larger than .4, therefore none of the items had to be removed from the scale.

### Attitude Towards Aging

#### 1. Direct Questions

One way of measuring the respondents' attitude towards old age was by means of direct questions, the answer possibilities ranging from 1 to 3, with a score of 1 representing a positive attitude, a score of 3 a negative attitude towards older age. The midpoint values of the responses were averaged for all three items to obtain a scale score. As is shown in Table 4.3, all corrected item-total-correlations were larger than .4 and were therefore kept in the scale. The internal stability of the scale appeared to be satisfactory with Cronbach's  $\alpha = .71$ .



Item:	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>How would you judge life when one is about 75 years old?</i>	2.41	.58	.59
<i>How would you judge life when one is about 75 years old?</i>	2.91	.67	.45
<i>Would you want to get 100 years old provided that you remain healthy?</i>	2.88	.41	.84

Table 4.3: Reliability analysis: means and item-total statistics for the measurement of attitude towards old age (direct questions)

## 2. Associative Ratings

The second measurement of the respondents' attitude towards old age required ratings of how well a list of attributes fitted the term "old age". The answer scores have been partially recoded such that 1 always stands for the most positive association (i.e., "*suits exactly*" if the term is positive, "*does not suit at all*" if the term is negative), and 5 stands for the most negative association. The midpoint ratings of the items were then averaged and joined to a scale.

Five of the 16 items had corrected item-total correlations smaller than .3, and were accordingly removed from the scale. The remaining eleven items all had item-total correlations higher than .4, as can be seen in Table 4.4. The definite scale had a Cronbach's *alpha* of .87, and can therefore be considered to be internally stable.

## Measurement of Self-efficacy Belief

The perceived self-efficacy of the respondents was in this study measured with five items of the German Version of Jerusalem and Schwarzer's (1981) General Self-Efficacy Scale.

With the data of the present study, the five items had a Cronbach's *alpha* of .79, that is, the scale appeared to have a sufficient internal stability. As is shown in Table 4.5, all corrected item-total-correlations were higher than .5, therefore none of them had to be removed from the scale.

Item:	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>How well do the following characteristics fit to the term "old age"?:</i>			
<i>Interest</i>	2.06	.55	.86
<i>Irritability</i>	2.95	.51	.86
<i>Activity</i>	2.31	.51	.86
<i>Dissatisfaction</i>	2.69	.69	.85
<i>Enthusiasm</i>	2.44	.55	.86
<i>Dispiritedness</i>	2.87	.62	.86
<i>Anxiety</i>	3.03	.58	.86
<i>Self-confidence</i>	2.28	.59	.87
<i>Egotism</i>	2.81	.54	.86
<i>Malevolence</i>	2.33	.65	.85
<i>Dependency</i>	2.60	.64	.86

Table 4.4: Reliability analysis: means and item-total statistics for the measurement of attitude towards old age (associative ratings)

Item:	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>I always succeed to solve difficult problems if I try hard enough.</i>	1.76	.53	.77
<i>In unexpected situations I always know what to do.</i>	2.26	.54	.77
<i>I think I can cope well with surprising events.</i>	1.97	.66	.73
<i>I always face difficulties with composure because I can deal well with problems.</i>	2.18	.63	.74
<i>Whatever will happen, I will be able to cope.</i>	1.78	.53	.77

Table 4.5: Reliability analysis: means and item-total statistics for the measurement of self-efficacy belief

### Job Deprivation Scale

The Job Deprivation Scale by Buchmueller, Dobler, Mayring and Schneider (1997) was used to measure the extent to which the respondents missed their former job or enjoyed their retirement. Table 4.6 shows the items of the Job Deprivation Scale with the means and item-total statistics that were obtained

in this study.

Item:	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>Which of the following statements do you approve when comparing your life since retirement with your professional life?</i>			
<i>I enjoy not having to turn up for work on time every day.</i>	1.50	.43	.85
<i>I often miss the challenges of professional life.</i>	2.56	.57	.84
<i>I am happy not to have to go to work anymore.</i>	1.93	.50	.85
<i>I enjoy not being exposed to the pressure to perform anymore.</i>	1.70	.39	.85
<i>I miss the contact to other people that I had during work.</i>	2.77	.61	.84
<i>I miss the freedom I had because of my work away from home.</i>	2.10	.61	.83
<i>I miss the purpose and meaning of life as it was given by my work.</i>	1.93	.66	.83
<i>I miss the feeling of being a respected worker.</i>	2.06	.68	.83
<i>I miss the regularity of my daily routine during my working life.</i>	1.88	.49	.85
<i>I enjoy being able to plan my time more freely.</i>	1.40	.53	.77

Table 4.6: Reliability analysis: means and item-total statistics for the measurement of job deprivation

The item “*I am happy that I don’t have to argue with my colleagues anymore*” had a corrected item-total correlation smaller than .3, and was therefore removed from the scale.

The remaining ten items all had corrected item-total-correlations of  $r = .39$  or higher, as can be seen in Table 4.6. Cronbach’s alpha of the definite scale was .85, which is satisfactory. The scale can therefore be considered as an internally stable and useful measuring instrument.

### Measurement of the Importance of Identity Domains; and Measurement of Identity Diversity

The development of a measuring instrument for the importance of identity domains started with the qualitative interviews, where we asked the participants the classic question of identity research: “Who are you?” (cf. Blasi, 1988; Blasi, 1995). When analyzing the answers we wrote down every self-defining statement that had been expressed by the respondents. Then we looked for different *categories* or *domains of self-definition* where each of the self-characterizing statements could be allocated. There resulted six domains of self-definition:

1. *Profession*

This category contained references to a person’s profession or former profession.

(E.g., “I am a career counselor”, or also “I *was* a teacher”.)

2. *Family roles*

Under “family roles” we subsumed every self-description that referred to a person’s position within his or her family, including the partnership.

(E.g., “I am a grandmother”, , “I am a father of adult children”, or “I am a husband”.)

3. *Friendship roles*

Self-descriptive statements were considered as “friendship roles” if a person defined him- or herself in terms being somebody’s friend, or in terms of his or her circle of friends.

4. *Art, culture, leisure*

Into this category fell statements concerning leisure time activities. Some of our interviewees pursued very time-consuming and artful activities—like painting, sculpturing, handcraft weaving, etc.—that are almost to be seen as a substitute for the former profession, and that the term “leisure” does therefore not really do justice to. Thus, in order to better embrace these almost profession-like activities we decided to name the category “Art, culture, leisure”.

5. *Community functions*

This category comprised self-defining statements regarding honorary posts, voluntary service, commitment in party politics and church, and also memberships in special organizations, clubs or associations.

### 6. *Personality, Values*

The last category subsumed all the statements that referred to internal constructs like personality traits, value systems, beliefs and religion.

(E.g., “I am rather introverted”, “I am a joker”, “I am a Christian”.)

Figure 4.1 shows the frequency with which self-definitions belonging to a certain category were named.

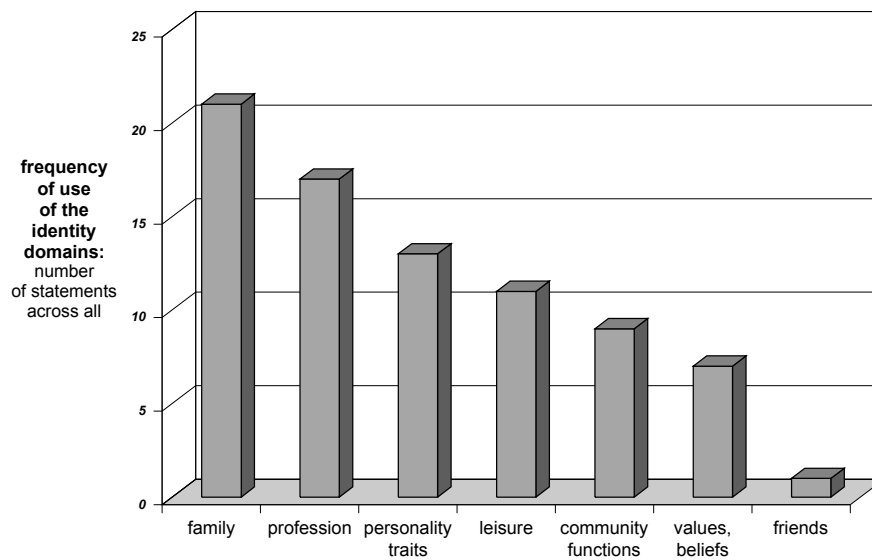


Figure 4.1: Frequency with which each identity domain was used, collapsed across all 13 respondents

The domains that were most frequently used by the interviewees to define themselves were family roles (which were named 21 times). Statements about the profession or former profession were still named 17 times, that is, the interviewees—even though nine of them were retired—named on average more than one self-definition that concerned their work or former work. Less frequently named were the categories of personality traits, leisure time activities, community functions, values/beliefs, and friendship roles.

Two categories were missing entirely that we would have expected to be used: Nobody mentioned their own age or the fact that they were retired. That is, there were no statements like: “I am 64 years old” or “I am retired” as a way of characterizing one-self.

This may be due on one hand to a certain reluctance to talk about one’s age—and thus also about one’s retirement status, which would be an indirect reference to one’s age. On the other hand, it is also possible that the participants simply considered their age or retirement status as unimportant for their own identity. But whatever the reason for this omission was, it suggested that for our participants the new identity as a retired person was in no way a substitute for their former professional identity.

This points into the direction of the first hypothesis, which assumed that retired persons will rate their former profession as more important to characterize themselves than their status of being retired. However, since the sample was so small, the findings of these interviews should only be seen as a first illustration; the actual purpose of this preliminary inquiry was to provide a base for the questionnaire study.

As was described on page 106f we added five more categories and split up three of the categories, so that the definite standardized question for the survey contained 14 categories of self-definition. For each of these domains the respondents were asked to indicate how important they considered these domains for their own identity.

For the main research questions of this study (regarding the development of identity after retirement), these items were not joined to scale, but were analyzed separately. That is, they were not meant to measure only one super-ordinate construct, like the items in the above presented scales.

However, to measure the *identity diversity*, the mean of these fourteen ratings were calculated, that is, the ratings were treated like items of a scale, providing an overall scale score. Therefore, the items were also analyzed with regard to the scale reliability.

Table 4.7 shows the means of the items, and the item-total statistics.

Item:	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>If you have to characterize yourself, which of the following points are important for you?</i>			
<i>My nationality</i>	3.58	.36	.75
<i>My roles within my family</i> (parent-, grandparenthood etc.)	3.88	.40	.75
<i>My partnership</i>	4.47	.31	.75
<i>My profession or occupation</i> (for retirees: my former profession)	3.93	.32	.75
<i>Honorary posts or volunteer work</i>	2.75	.39	.75
<i>Characteristics of my body /</i> <i>my appearance</i>	3.68	.50	.74
<i>Personality traits</i>	3.90	.52	.74
<i>My age</i>	2.88	.40	.75
<i>My life story</i>	3.06	.50	.73
<i>The associations and organizations I</i> <i>belong to</i>	2.73	.37	.75
<i>My circle of friends</i>	4.05	.45	.74
<i>My leisure time activities</i>	4.11	.29	.76
<i>My values of my belief</i>	3.78	.28	.76

Table 4.7: Reliability analysis: means and item-total statistics for the measurement of identity diversity

The scale had a Cronbach's *alpha* of .76, which can be considered as satisfactory. However, two of the items had corrected item-total correlations smaller than .3. In order to cover all identity domains, the items were nevertheless kept in the scale, but these insufficient item parameters represent a shortcoming of the measuring instrument which has to be borne in mind when interpreting the results regarding the identity diversity.

### 4.3.2 Professional Identity and Retiree Identity

#### Excerpts of the Interviews: Statements Concerning Profession and Retirement

When we did the interviews preceding the questionnaire study we were also interested in the participants' attitude towards their profession: Would they consider their profession as very important for their identity? And what would retirement change in the importance of the profession?

I will in the following give a few examples of the participants' reflections about their profession and retirement. The answers will here be translated into English. The original answers in German are reprinted in Appendix B (however, these have also been translated from Swiss German Dialect to Standard German, in order to ensure better readability).

It appeared that there were huge differences in the way these persons experienced the importance of their profession or former profession and the transition to retirement:

There was for instance a psychiatrist for whom his profession was a very central part of his life and his identity: "During the whole of my working life I was a psychiatrist, and the whole of my working life was oriented towards psychiatry. I have already made the Matura [Swiss college degree] with this objective." On the question if he thought he would still see himself as a psychiatrist after retirement he laughed and answered: "I think so, yes. I have a rather extensive library; the specialized literature is my practice, and the fiction is at home, and I cannot imagine to get rid of specialized literature. I am sure that I will continue to read something once in a while. This is one point where I am aware that I will probably always see myself as a psychiatrist, because I will always read with the eyes of a psychiatrist." He added later on that he would probably still keep some of his clients even after giving up his practice, since he thought it would be a pity to waste all the experience he had gathered over the years.

There were others who had also had a profession that had been very important for them but who had finished with this part of their lives completely after retirement. For example, a music teacher (she was the wife of the psychiatrist) said: "I do not miss this [making music] any more, which had been so important for me formerly, and which had seemed the greatest thing on earth to me. This is just completed."

Another woman had, together with her husband, directed a nursing home for old people before they both retired from work. They had lived in the building of the nursing home while they were working there, so to retire had also meant for them to move out of the house. She said about her profession: "I identified very strongly with my work. It was a part of myself, also a sort of homeland. However, I was prepared for the change, I can now also make up for things that have not been possible before."

A different pattern was a *gradual cessation* of the importance of the profession, already before retirement. There was for example one woman who had worked as a secretary before retirement, and who explained this dimin-



ishing importance in the following way: “That was rather a sort of tapering off. I had loved my profession, loved to work, but in this age I felt that there were younger workers, and I did not have this power any more. So this went into quite a natural gradual termination. But I still liked to work, it was just not so important anymore.”

In some cases the *moment* of the transition to retirement seems to be crucial in order to maintain a positive view of the former profession, as the statement of a teacher shows: “My work was beautiful and important to me. The last class was very agreeable (...). This was very important for me, to quit working at a moment when I very much liked being a teacher, that is to exit at a peak level.” As he went on explaining, this was for him also one of the reasons why he went into retirement two years earlier than the official retirement age. He did not want to start with a new class which he would have had to give over to his successor in the half time, because this kind of exit would have seemed unsatisfying to him.

### Testing Hypotheses

Based on assertions of the social identity theory as well as on previous research on images of aging and retirement I have assumed that retired persons would rate their former profession as more important to characterize themselves than their status of being retired.

The descriptive results showed that the mean value of the rated *importance of the former profession* for self-definition was  $M = 3.90$  for the retired persons ( $SD = 1.18$ ), the scale ranging from  $5 = \textit{very important}$  to  $1 = \textit{not important at all}$ . That is, the retired persons still considered their former profession as “*rather important*” to characterize themselves.

Interestingly enough, there was not even a significant difference between the not yet retired ( $M = 4.04$ ,  $SD = .97$ ) and the retired persons, regarding the importance of their profession (resp. former profession) for self-description  $t(727) = 1.80$ ,  $p$  (*two-tailed*) = .07.

A t-test showed that for the retired persons, the former profession ( $M = 3.90$ ,  $SD = 1.18$ ) was significantly more important to characterize themselves than the fact that they were retired ( $M = 3.58$ ,  $SD = 1.23$ ),  $t(378) = 3.74$ ,  $p$  (*one-tailed*) < .001,  $d = .25$ .

The first Hypothesis was thus confirmed, but with a rather small effect size.

I have further assumed that respondents with a positive attitude towards higher age would rate their status of being retired as more important to

characterize themselves than respondents with a negative attitude towards higher age.

The results confirmed this assumption both for the direct and the associative question:

1. In the *direct question* respondents with a positive attitude towards higher age assigned their being retired an average importance of  $M = 3.68$  ( $SD = 1.24$ ); whereas the average of respondents with a negative attitude was only  $M = 3.39$  ( $SD = 1.30$ ),  $t(475) = 2.09$ ,  $p(\text{one-tailed}) = .021$ ;  $d = .23$ .
2. In the *associative ratings* respondents who associated high age with positive adjectives assigned their status of being retired an average importance of  $M = 3.78$  ( $SD = 1.28$ ); whereas respondents with negative associations had a mean answer score of  $M = 3.36$  ( $SD = 1.26$ ),  $t(478) = 3.16$ ,  $p(\text{one-tailed}) = .001$ ,  $d = .33$ .

The second hypothesis was therefore also confirmed, although here as well the effect sizes were rather small.

Based on the social identity theory, I have assumed that the professional status is a good predictor for the professional identity.

Table 4.8 shows the correlations between the *professional identity* (measured as the rated importance of the respondents' profession or former profession to characterize themselves) and several demographic and job-related variables.

The correlations were all not very high, the highest being the professional status with  $r = .256$ . Regarding this work's focus, it is interesting to note that neither the status of being retired, nor the duration of retirement, nor the age of the respondents correlated significantly with the importance of the professional identity. Directly job-related variables and gender seemed to be more useful predictors.

In order to find out more about the predictive value of those variables, a multiple regression analysis was realized.

Out of the potential predictors that were included into the analysis, three showed to have a significant predictive value: professional status, job deprivation, and self-efficacy belief. This means that higher importance of the professional identity went together with higher professional status, higher feeling of job deprivation after retirement, and higher self-efficacy belief. These three variables explained together 11.4 percent of the variance ( $R = .337$ ).

Variables like gender or duration of the last occupation, on the other hand, had no predictive value, although they correlated significantly with

	Correlation with high importance of professional identity	Degrees of freedom ( $n - 2$ )
<b>Whole sample:</b>		
<i>Sex (male)</i>	.129 **	721
<i>Age</i>	-.052	716
<i>High education level</i>	.015	727
<i>High professional status</i>	.256 **	725
<i>Being retired</i>	-.071	727
<i>High self-efficacy belief</i>	.173 **	714
<b>Retirees only:</b>		
<i>Duration of last professional occupation</i>	.130 **	430
<i>Duration of retirement</i>	-.012	355
<i>High job deprivation</i>	.125 *	383

Table 4.8: Pearson correlations between professional identity and different job-related variables; \* $p < .05$ ; \*\* $p < .01$

professional identity when they were not controlled for other variables (cf. Table 4.8).

Table 4.9 shows the coefficients for the dependent variable *professional identity*.

	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
<i>(Constant)</i>	3.235	.296		10.925	.000
<i>Professional Status</i>	.134	.028	.250	4.792	.000
<i>Job deprivation</i>	.303	.088	.181	3.435	.001
<i>Self-efficacy belief</i>	-.283	.094	-.160	-3.001	.003

Table 4.9: Stepwise multiple regression: coefficients for the dependent variable *professional identity*

Cross validation proved the model to be internally stable;  $z(390/402) = .46$ ,  $p$  (*two-tailed*) = .65, see also Appendix C.

These Results confirmed the hypotheses III and IV so far, since the professional status was a significant predictor for the importance of the professional identity, explaining more variance than any other of the measured variables.

However, with 11.4 %, the part of the variance that could be explained through the here measured variables was quite small. It can therefore be

assumed that there exist other variables that were not measured here, but that do have an important influence on the professional identity, maybe more so than the professional status.

### 4.3.3 Identity Diversity as a Predictor for High Satisfaction

In accordance with the self-complexity theory, I assumed that people with high identity diversity (i.e. for whom many identity domains are important to characterize themselves) would be more satisfied with their lives (hypothesis V).

The results confirmed this assumption: high identity diversity was found to be correlated with a high satisfaction across different life domains. The correlation between the identity diversity and the score in the satisfaction scale is  $r(775) = .354$ ,  $p$  (*one-tailed*)  $< .001$ .

There is no significant effect of *age* on identity diversity: age does not correlate negatively with high identity diversity, as the disengagement theory would have predicted,  $r(774) = -.065$ ,  $p = .07$ .

Surprisingly, there is an effect of *retirement* that goes even into the opposite direction: identity diversity is higher for retirees ( $M = 3.71$ ,  $SD = .56$ ) than for the not yet retired persons ( $M = 3.60$ ,  $SD = .57$ ),  $t(785) = -2.626$ ,  $p$  (*one-tailed*)  $= .009$ ,  $d = .21$ . Looking at the single identity domains, all the differences that could be observed were going into the direction that the identity was *more* important for the retirees than for the not retired persons. There was no identity domain that got significantly less important after retirement.

That is, retired people had more domains that were important for them to characterize themselves than people who were still working.

The identity diversity value appeared to be higher for the women ( $M = 3.73$ ,  $SD = .57$ ) than for the men ( $M = 3.58$ ,  $SD = .56$ ),  $t(786) = -3.502$ ,  $p$  (*one-tailed*)  $< .001$ ,  $d = .27$ . There was no significant interaction between identity diversity before and after retirement and gender,  $F(1) = .076$ ,  $p = .782$ .

The fact that high identity diversity correlated with high life satisfactions suggests that it is not a failure of adjustment to higher age if people do not give up role identities when getting older, as it was suggested e.g., by the disengagement theory. It seems on the contrary that also for older adults, high identity diversity is something positive.

### 4.3.4 Effects of Retirement on the Importance of Other Identity Domains

As a rather explorative issue, the question was addressed what effects the retirement might have on the importance of other identity domains than the profession. To know more about this, the two groups—retired and not yet retired persons—were compared.

Figure 4.2 shows the distribution of the rated importance of each self-definition domain for the entire sample.

Figure 4.3 shows the same answer distribution, the sample being here split into not yet retired participants (left half of the columns) and retired participants (right half of the columns).

Since people have more time after their retirement than before, it was self-evident to assume that leisure time activities, occupations like volunteer work or honorary posts, and commitment in organizations or associations would be more important for retirees than for working people.

For the importance of the category of *leisure time activities* for self-definition, there was indeed a significant difference between the not yet retired ( $M = 4.00, SD = .855$ ) and the retired persons ( $M = 4.23, SD = .821$ ),  $t(769) = -3.709, p < 0.001, d = .28$ . If controlled for the age of the participants, the partial correlation between retirement (a dichotomous variable) and the importance of leisure time activities was still significant ( $r = .117, p < 0.001$ ). It can therefore be assumed that it was really the event of retirement and not just a cohort or age effect that caused the difference between the retirees and the not yet retired persons.

For the importance of *honorary posts or volunteer work* for self-definition, however, there was no significant difference between the not yet retired ( $M = 2.73, SD = 1.196$ ) and the retired persons ( $M = 2.87, SD = 1.338$ ),  $t(718) = -1.428, p$  (*two-tailed*) = .159.

There was a similar result for the importance of *membership in organizations or associations* for self-definition: there was no difference between the not yet retired ( $M = 2.73, SD = 1.239$ ) and the retired persons ( $M = 2.86, SD = 1.371$ ),  $t(719) = -1.305, p = .192$ .

That is, neither honorary posts and volunteer work nor the membership in organizations, clubs or associations were more important for the retirees than for the not yet retired participants. In fact, the ratings of those two categories were highly correlated,  $r(688) = .552, p < 0.001$ . It seems thus that persons who engaged in voluntary work and saw this as an important aspect of their identity were to a large extent the same as those who saw their memberships in organizations as self-defining. An explanation for this

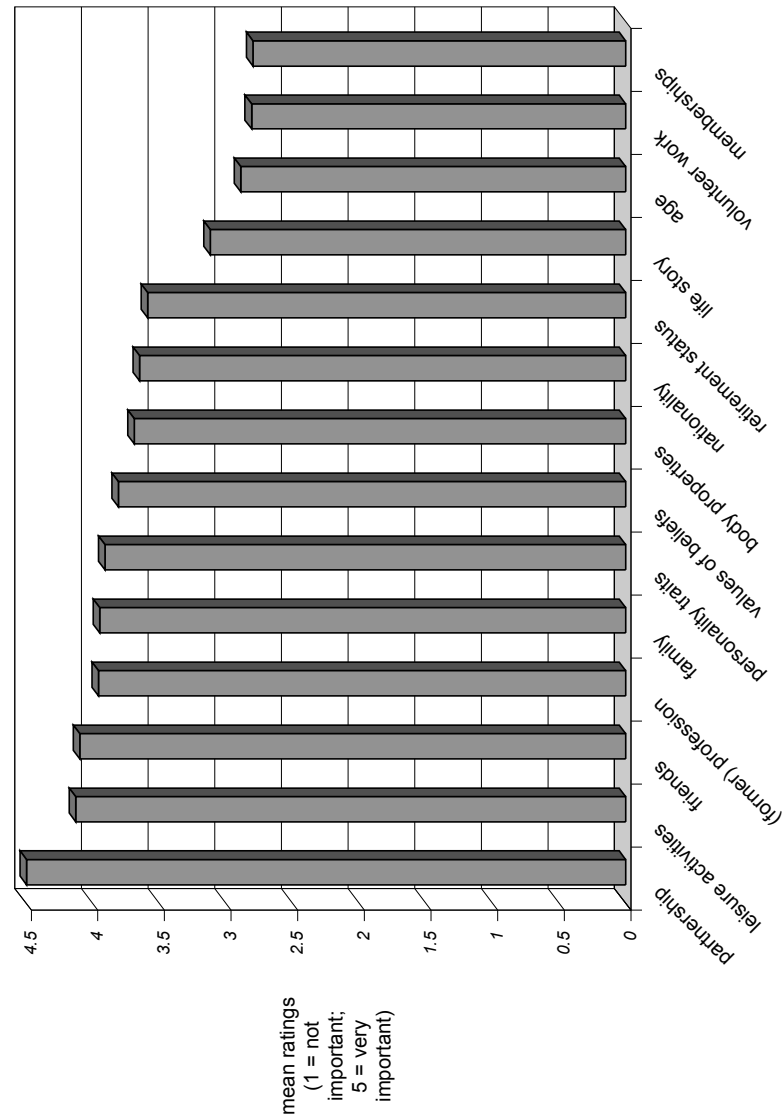


Figure 4.2: Rated importance of different domains for self-definition (entire sample)

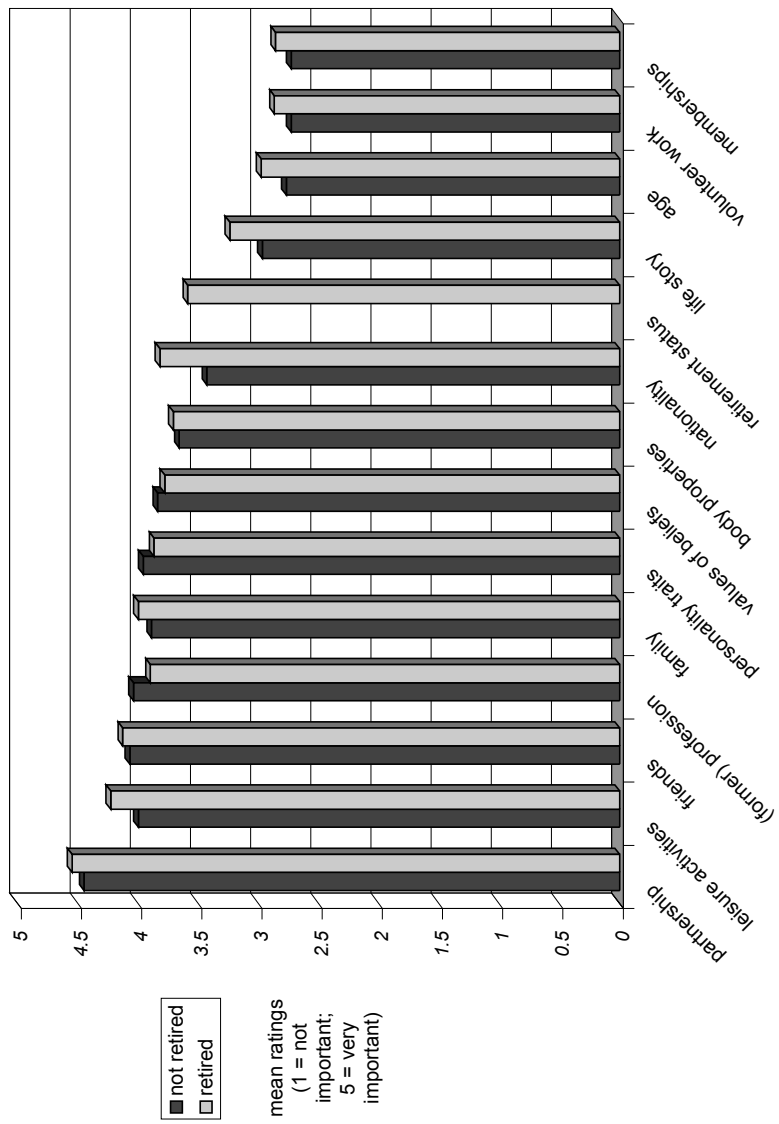


Figure 4.3: Rated importance of different domains for self-definition (sample split by retirement status)

might be that volunteer work is probably often linked to a specific organization the volunteering person belongs to as a member. Organizations that provide important social identities may often require some sort of volunteer commitment of their members. Furthermore, a high voluntary commitment for an organization will probably lead to a higher identification with the organization, thus resulting in a higher importance of the membership for self-definition.

### 4.3.5 Effects of Age or Cohort on the Importance of Identity Domains

Another explorative issue that was addressed in this study was the question what effect the *age* of the persons had on the importance of the different identity domains. Since there was naturally a rather high correlation of  $r(776) = .53$  between the age of the participants and their retirement status, all of the here presented correlations were controlled for the retirement status of the participants.

In the following domains there was a significant but small correlation between the age of the participants and the rated importance of the respective domain of self-definition:

- *Age*:  $r(753) = .097, p = 0.007$
- *Life story*:  $r(740) = .078, p = 0.034$
- *Nationality*:  $r(750) = .186, p < 0.001$

That is, the participants rated their own age, life story, and nationality as more important for self-definition with increasing age.

*Personality traits* were rated as *less* important with increasing age,  $r(730) = -.109, p = 0.003$ .

For all the other identity categories there was no significant correlation between the age of the participants and the rated importance of the domain.

Since this was not a longitudinal study, no distinction can be made for these results between age and cohort effects. It seems probable that the difference for nationality, for instance, might rather be due to a cohort than an age effect, in the sense that the older people of this sample might have been socialized in a time when to be Swiss was something more self-defining than it was later on. For instance, the older people of this age cohort have been adolescents during World War II, whereas the youngest probably do not have any own memories of that time. These different historical backgrounds may have had a considerable effect on the importance of the Swiss nationality



for the respondents' identities. For the identity domain of the own life story, it seems understandable that it gets more important with increasing age. The own life story is not only getting longer, and thus richer in the course of a lifetime, but also more special, in the sense that there are, with increasing age, less and less other persons who share the same memories of one's early life. The increasing importance of one's age might be explained with the increasing salience, higher age being a more salient—because more extreme—social category than middle age. Yet it is nevertheless astounding that higher age should become more important for self-definition, given the fact that old age is generally valued in a rather negative way by the society.

It should, however, be noted that all these correlations were very small, although significant. It appears indeed that the age of the respondents did not have a substantial influence on their identity or self-view—that is on how important they judged these different domains to define themselves.

#### **4.3.6 Self-perceived changes due to higher age**

The third explorative issue of this study concerns the participants' self-perceived changes that they attributed to their advanced age. In order to get a better understanding of these changes, findings from the interviews will be analyzed.

When we did the face-to-face interviews we were interested in what kind of changes the persons had experienced about themselves during the last ten or more years. In the following, the changes that were mentioned during the interviews will be presented and discussed.

##### **1. Decreasing Importance of Social Roles; Withdrawal and Privacy**

Several persons emphasized that different social roles, especially public roles, were getting less important, and also that they were paying less attention to the opinion of other people:

- “Until I was 40 years old I spent much more time acting roles than being myself. Actually almost exclusively.”
- “Today I am caring increasingly about myself. Formerly success was more important to me, in my work, with other people, with women. To be appreciated, esteemed and so on. To be respected.”
- “I manage better to take my distance. I am still interested/commiserate, but I know that some things are other people's problems.”

- For one man, a recently retired teacher, it was very important that he learned to live more ascetically. This meant for him on one hand to live with less material goods—he planned to move from a large farmhouse, where he was living with his wife, to a small studio, where he intended to bring only the most necessary things with him. His wife would stay in the farmhouse, but he emphasized that this separation concerned only their way of living; and that they would stay a couple and where getting along well with each other. On the other hand, beside the renouncement of material comfort, it was important for him to decrease his social commitments, like communal politics, honorary posts and so on:

“During the last 20 years I have abandoned many roles, quite consciously. There has really been a conscious withdrawal. It is important for me to see that I am capable of giving off, that I can do without all this. I have the inner vision of my cat lolling in the sun on my balcony. I would like to become like that, to be satisfied with nothing more than a little sun.”

He specified this gradual role-withdrawal in the following way: “It was not only the number of the roles that decreased, but also the intensity, the binding character, and the time commitment. Those roles that I still occupy could be given up anytime. This [withdrawal] has begun with the move-out of our children. The father-role was of course the most binding, most intensive, around-the-clock role. And then the profession. And now I take only small, shorter tasks (...). Letting go, letting go—this is what I have to learn now.”

He saw this clearly as a way of practicing, in order to be able to cope more easily with the losses that might come with older age. He agreed also definitely with me when I asked him if this living with less (things and persons) around him was also a way of choosing deliberately what might happen anyway later on.

Besides this cut-back in social obligations and commitments, some interviewees observed on the other hand a gain in family roles, because new relationships are emerging, namely with sons- and daughters-in-law and with grandchildren.

However, when analyzing the statements across all life domains, there was a pronounced tendency towards fewer social roles. 9 of the 13 persons reported to have experienced a decrease of social roles over the past 10 to 20 years, and for the remaining 4 persons the number of

roles remained the same. Nobody reported an overall increase in social roles across all life domains.

## 2. Stronger Inward-Orientation, Increasing Importance of the Own Person

A probably related tendency to the decrease in roles was an increasing orientation towards one-self, and towards the “inside”, as the following statements show:

- “I have the feeling that I come closer and closer to myself. ‘Become who you are’—this is getting more and more true. I am becoming more and more authentic.”
- “My interests are increasingly oriented towards the inside.”
- “I have got to know myself better.”
- “I succeed better in staying with myself.”
- “There was a change in the sense that I have any goals at all, and these goals are rather oriented inwardly than towards the outside: For example, that I can deepen my satisfaction, in my work, in everyday life.”
- “I am happy that I can do things for my own sake. I always objected to this when I was younger.”

There were no statements documenting the inverse direction, that is, a stronger outward-orientation, stronger extraversion or a decreased importance of the own person.

## 3. Increased Self-confidence, Stronger Will

The following statements illustrate the feeling of several of the participants that their self-consciousness had got stronger, and that they were succeeding better in pursuing their interests than when they had been younger:

- “I know better what I want and what I do not want.”
- “Today I don’t do any more things that I *should* do, only that I *want* to do.”
- “I am clearly more daring to face challenges.”
- “My self-confidence has increased, I have become more secure. I have also ceased to feel guilty for all sorts of unnecessary things.”

Here as well, the statements all documented the same direction of change, from less to more self-confidence and will-power, and never the opposite tendency.

#### 4. Increased Composure, Calmness

The change that was named most often by the interviewees was that they considered themselves as more composed than when they were younger. The German term “Gelassenheit” (= composure, calmness, placidity) was used by five of the 13 participants. Others used related terms, like patience, considerateness, but also passivity. Examples for such statements are the following:

- “This is very clear to me that I have become calmer and do not have so much energy either. Many things, also the activity, have decreased. (...) It is not always easy to let go, but there is something you get back—tranquility I would say. A certain serenity.”
- “I have become more patient and composed.”
- “I’m calmer, more considerate, more composed, also more merciful. (...) However, I have also realized that balance and stability are not very desirable after all, because the deepness with which you can experience psychic lows determines also how high you can get in a psychic high.”

In Figure 4.4 all named personality changes (across all 13 participants) are listed, and grouped according to their similarity. This yielded two larger groups and seven single statements describing how the participants perceived changes in their own person. The two larger groups of similar statements comprised on one hand the tendency to be calmer and quieter, on the other hand the tendency of giving the own person more importance and focusing more on oneself.

What is especially striking in this exploration is the unanimity of the way the different participants experienced the development of their own personalities over their later adulthood. That is, the direction of the changes was always the same. There were for example several persons asserting that they were calmer or more passive than formerly, and nobody stated the contrary, that he or she was getting more vivid or more active. These 13 persons have otherwise very diverse personalities and life situations, and for other life domains (for example for the changes in attitudes) we could not make out such general tendencies.

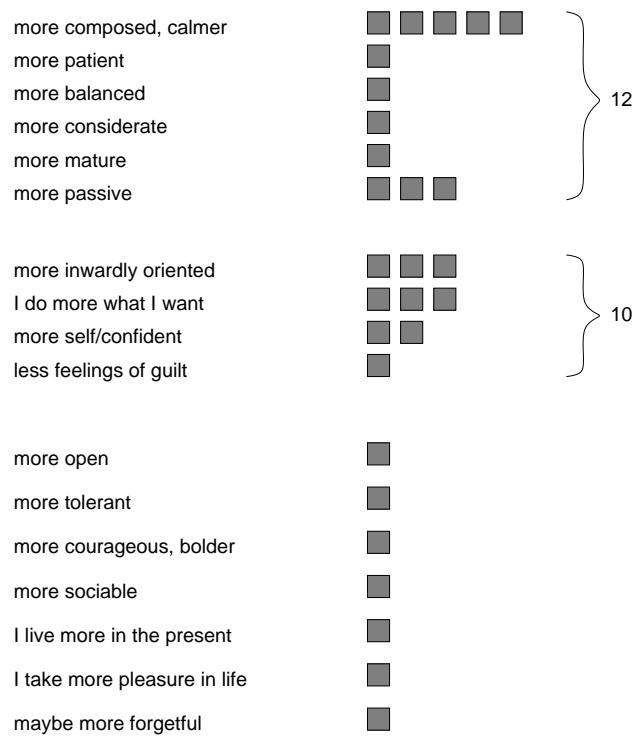


Figure 4.4: Self-description of changes in personality (number of spontaneously expressed changes)

The changes that were named were mostly of a positive nature, which suggests the possibility that the answers were biased by social desirability. But even if we assume that all persons saw their personal development as positive, this does not explain why the contents of the changes were so similar. For example, nobody had the impression of getting more active or more extraverted, even though these traits would be at least as socially desirable as the change towards calmness and introversion.

Another possibility is that the interviewees memorized and interpreted their own development in accordance with common (mainly positive) stereotypes of aging. In order to out-rule this possibility a longitudinal study would be necessary, where the changes are not measured through retrospection but over various measure points.

## 4.4 General Discussion

A prediction derived from the social identity theory was that people tend to see their socially highly valued and distinctive identities as more important

than their less valued identities. This prediction was confirmed by several findings: retirees rated their former profession as more important for self-description than the fact that they were retired; the respondents' attitude towards older age predicts how important they see their status as retired; and the professional status is more appropriate than all other measured variables to predict the importance of the professional identity.

One of the most surprising findings in this study was that the profession was as important for retired as for not yet retired respondents to describe themselves. The loss of the professional role after retirement does apparently not lead to a loss of the professional identity. It seems that for a lot of persons the profession is indeed such an important part of the identity that it just remains an important aspect of the self, even if it is not practiced anymore. An important implication of this finding on role and identity research is that roles should not be confounded with role identities. They seem to be entirely different constructs, role identities being probably much more continuous than roles.

In general, the retired persons estimated more domains of self-description as important than did the not yet retired persons, which means that the identity diversity was higher for the retired than for the not yet retired persons. In addition, high identity diversity correlated with a high satisfaction across different life domains. This finding has important implications for psychological theories of older adults' development, disproving strongly the view that role disengagement be inherent to successful or even to normal aging.

However, the findings concerning identity diversity were based on a scale that was not entirely satisfactory with regard to the item-total correlation of the items. Therefore the results should be interpreted cautiously as long as they have not been replicated with other measuring instruments. One promising possibility would be to use Linville's (1985; 1987) trait-sorting task. This instrument was developed to measure self-complexity—a construct that is very closely related to identity diversity.

In the explorative analyzes there were also some unexpected findings. Leisure time activity was the only domain where there was a difference between retired and not retired respondents, no differences were found for volunteer work or memberships. These findings, however, do not rule out the possibility that honorary posts, volunteer work, or memberships may get more important *as activities* after retirement. It was only the importance of these domains regarding the *self-definition* that was measured here. The extent to which people identify with volunteering might be highly dependent of cultural factors. It is possible that volunteer work is e.g., viewed less pos-

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itively in Switzerland than in the United States. In Switzerland, volunteer work is sometimes even criticized as a threat to the manpower market, especially in times with high unemployment rates. This ambivalent assessment of voluntary work by the society might detain many people from an engagement as volunteers. In the United States, on the other hand, there seems to be a much more unanimously positive attitude towards volunteering, a fact that may also be due to a more urgent need for voluntary helpers in the social system.

Given that the study was cross-sectional, it should be borne in mind that all these differences between retired and not yet retired persons are not necessarily *changes* due to retirement, but *differences between the groups*—although the results can be controlled for age, so that we can rule out a mere age or cohort effect. The only possibility to measure real changes in individuals would be to acquire longitudinal data, which time restrictions did not permit for this study.





## Chapter 5

# Age Identity of the “Young Old”

To me, old age is always fifteen years older than I am.

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*Bernard Baruch (1955)*

Life is the art of being well-deceived; and in order that the deception may succeed it must be habitual and uninterrupted.

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*William Hazlitt (1817)*

### 5.1 Introduction

Active Retirees are often referred to as the “young old”, a term that shows some of the uncertainty of these persons’ age identity. They often do not feel old (Öberg & Tornstam, 2001), but nevertheless find themselves suddenly belonging to the category of the “elderly” or “seniors” (Filipp & Mayer, 1999). In this chapter several issues concerning the age identity of people in their seventh life decade (between 58 and 70 years) will be examined and discussed.

Three problems will be addressed:

1. A measurement model of subjective age will be evaluated,

2. two theoretical approaches to explain the subjective age bias will be introduced and empirically assessed,
3. and a predictive structural model of subjective age will be developed.

### 5.1.1 Measurement of Subjective Age

Kastenbaum et al. (1972) defined functional age as a multi-dimensional concept that includes four different domains of a person's subjective age. Respondents are asked to tick an age-decade (20's to 90's) in response to four questions of the form:

1. *feel-age*: "I feel as if I were in my...";
2. *look-age*: "I look as if I were in my ...";
3. *do-age*: "My activities are like those of people who are in their...";
4. *interest-age*: "My interests are like those of people who are in their...".

Barak (1979) (as cited in Barak, 1987) joined the four items to a cognitive-age scale, which showed to have a very high internal stability ( $\alpha > 0.9$ ). Subsequently, numerous studies used Kastenbaum et al.'s four aspects as a subjective age measure (cf. Barak, Mathur, Lee, & Zhang, 2001; Barak, Mathur, Lee, Zhang, & Erondo, 2001; Barak & Rahtz, 1990; Mathur et al., 2001; Staats, 1996; Staats et al., 1993). The four aspects have been used on one hand to measure a person's *absolute* subjective age (as in the questions above) as well as to measure *comparative* subjective age (e.g., "In comparison to people my age I look..."—the answer categories ranging from *much younger* to *much older*).

These four aspects of subjective age (feel-age, look-age, do-age, and interest-age) have often been referred to as four "*dimensions* of functional age" (e.g., Barak, Mathur, Lee, & Zhang, 2001; Barak & Stern, 1986). In my opinion, however, the high internal stability of the scale suggests that the four items measure only one dimension.

It is one goal of this study to evaluate this measurement model, not just with a reliability analysis providing an alpha-value for internal stability, but also with a path model giving an account of the dimensional structure of the construct. Additionally, I will include in this study other aspects that might be important parts of subjective age (e.g., social aspects that have so far not been considered), and verify if there are indeed different dimensions—or factors—of subjective age. For example, it is possible that bodily aspects of subjective age differ considerably from social or cognitive aspects.

Two hypotheses can thus be specified:

**Hypothesis I:** The subjective age measurement model based on Kastenbaum's four aspects is an appropriate model. Including other aspects of subjective age does not increase the goodness of fit of the model.

**Hypothesis II:** Subjective age is a one-dimensional construct. That is, the model does not consist of various factors. This is also true if we include more questions about additional aspects of subjective age.

### 5.1.2 Theoretical Approaches to Explain the Subjective Age Bias

The concept of subjective age has been studied empirically since the 1970's (cf. Section 2.2), so that there is now a considerable empirical descriptive basis. However, there is still a lack of theoretically founded psychological explanations for the phenomenon that most elderly people feel considerably younger than their calendric age.

One promising theoretical approach might be the domain of *positivity bias* or *positive illusions*. Many people do not possess entirely accurate self-views when it comes to self-knowledge of an evaluative nature (i. e., people's ideas about their socially valued qualities and abilities). Instead, there is extensive evidence that most people regard themselves as better than they really are (see e.g., Silvia & Duval, 2001; Gramzow, Elliot, Asher, & McGregor, 2003; Kwan, Love, Ryff, & Essex, 2003; Sedikides et al., 2003; Sedikides, Herbst, Hardin, & Dardis, 2002; Taylor, Lerner, Sherman, Sage, & McDowell, 2003).

Brown (1998) reports for example that students who have to rate their own loyalty, kindness, intelligence, attractiveness, and so forth, rate themselves above the scale midpoint on all of the positively valued attributes, and far below the scale midpoint on all of the negatively valued attributes (Brown, 1998). They think of themselves for example as very loyal, attractive, kind, and talented, and not at all as inconsiderate, unpopular or dumb. This positivity bias affects only self-ratings. When the students rate "most other people", the ratings hover around the scale midpoint. Collapsed across the various attributes, 89 percent of the students rate themselves more positively than they rate most other people, and 92 percent of the students rated themselves less negatively than they rate most other people. These findings suggest that people often do not possess an accurate view about themselves. Although it is not possible from such data to know which of the persons were mistaken, all values over 50 percent represent inaccuracy. This means that around 40 percent of the respondents possess unrealistically positive beliefs about themselves.

The results of this study are just one illustrative example out of an extensive amount of evidence showing that most people regard themselves in highly favorable terms.

The tendency of viewing oneself as younger than age cohorts could be seen as a special case of self-enhancement, since to feel, look and act young is in our society considered as something positive. That explanation would assume that people have a motivation to feel young.

However, besides that motivational approach there is another—purely cognitive—possible explanation for this phenomenon of a generally too young subjective age: It can be assumed that elderly people do really look younger today than they did a few decades ago, since the health state of elderly people is a lot better today. Therefore, the inner prototype image that we have of a person in his or her 60's might not correspond anymore to the aspect of today's "normal" people in their 60's. If people have to decide whether they look younger than other people of the same age, it is possible that they compare themselves not only with people who have *now* the same age, but also with older people whom they remember at that age. And it is very probable that a woman who is now 65 years old looks indeed a lot younger than did her mother at the same age.

According to this explanation, the general tendency to feel younger than ones real age would be merely a question of information-processing. There is no motivational component in this explanation, and it is therefore simpler than the self-enhancement hypothesis.

How can we tell which of the two explanations is more accurate? There are some specific predictions for each of the explanations, which will immediately lead to three further hypotheses for this study. (For the formulation of the hypotheses the existence of a motivational component in the subjective age bias will be assumed.)

- One difference concerns the attitude towards older age in society. If the tendency to view oneself as younger was a special case of self-enhancement, we would expect the attitude towards older age to play an important role. Feeling especially young can only be positive for a person's well-being if "to be or feel old" is seen as something negative. We would therefore expect a moderating effect of the attitude towards old age on the correlation between a young subjective age and a high life satisfaction. This correlation should be especially high for people with a negative attitude towards old age. For the information processing explanation, on the other hand, the attitude towards aging is not supposed to make a difference.

Assuming a motivational component leads therefore to the following hypothesis:

**Hypothesis III:** The attitude towards old age has a moderating influence on the correlation between a young subjective age and a high life satisfaction.

- A strong tendency of self-enhancement and positive illusions about one-self is highly related to other personality traits like optimism and self-efficacy belief, as well as to life satisfaction (Myers & Diener, 1995). So if a young subjective age was a special case of self-enhancement, we would expect a correlation between a young subjective age on one side and high optimism, high self-efficacy belief, and high life satisfaction on the other side. For the information-processing explanation however, there would be no reason for such a connection.

It follows therefore:

**Hypothesis IV:** A young subjective age is positively correlated with high scores in optimism, self-efficacy belief and life satisfaction.

- Self-enhancement tendencies are usually stronger for domains that cannot easily be verified, that is, where no objective feedback is available or where standards are ambiguous and subjective (cf. Dunning, Meyerowitz, & Holzberg, 1989; Felson, 1981). I assume that for bodily aspects of subjective age, like fitness or attractiveness, there is usually more feedback available and standards are less ambiguous than for the general subjective age, that is for the general question of how old or young a person feels. If we further assume that the underestimation of subjective age is a special case of the self-enhancement tendency, we would expect people to feel younger for the general subjective age than for bodily aspects of subjective age. As opposed to that, no such difference could be expected if the information-processing explanation was accurate. We would in that case, on the contrary, expect the bodily subjective age to be rather younger, since the difference between today's elderly people and former generations is most salient for bodily aspects (e.g. health, fitness, or physical appearance).

Therefore I suggest the following hypothesis, assuming a motivational component:

**Hypothesis V:** The *general* subjective age is younger than the subjective age regarding *bodily aspects* like fitness or attractiveness.

### 5.1.3 A Predictive Model of Subjective Age

In Section 2.2 a correlative model has been developed on the basis of previous findings, suggesting that numerous variables are connected with subjective age.

A goal of this study was to further analyze the relationship of several of those variables, thus providing a structural model of subjective age predictors.

Of all the correlates that were found in the literature, two groups of variables can be presumed to be especially important predictors for subjective age:

1. *Bodily aspects* like *health state* and satisfaction with ones *fitness* and *attractiveness*:

Whereas self-concept and subjectivity have traditionally been conceptualized in terms of the mind, more recent work has focused increasingly on the body (cf. Catterall & Maclaran, 2001; Shilling, 1993 and Turner, 1996).

This greater emphasis on the body challenges a long-standing philosophical and academic tradition of accepting a mind-body dichotomy, whereby the body is a vessel that encases the active mind. In this ontological dualism of the Platonic-Christian tradition body and soul are seen as hierarchical opposites. This traditional view still influences not only our everyday understanding but also scientific work (Núñez, 2001). Öberg (1996) for example points out the paradox that in social gerontology the body has been absent to a considerable extent, despite the fact that aging is experienced via the body. Post-structuralists have questioned this body-mind dichotomy by pointing out the importance of the body to a person's self-concept (Catterall & Maclaran, 2001).

Shilling (1993) and Turner (1996) assumed that in postmodern western societies the body is increasingly central to the self-concept. Turner (1996) argued that the increased importance of the body as constitutive of the self is a feature of post-modern consumer culture with its prominence of body images and emphasis on pleasure, desire, and playfulness. There is obviously a strong commercial and consumerist interest in the body as a sign of good life and an indicator of cultural capital. In addition to this theme of consumption there is a specific focus on the beautiful body, on the denial of the aging body, on the importance of sport and on the general moral value of keeping fit. Thus, post-modern consumer culture highlights the significance of the body as a personal

resource and as a social symbol, which gives off messages of a person's identity. Catterall and Maclaran (2001) point out that subjective age reflects therefore wider expectations that we must maintain a youthful, fit body. A young and healthy body is supposed to be a sign of a young and healthy mind.

The importance of the body is also reflected in concerns about health and loss of physical strength and agility, which have been identified as the main concern of the older consumer in a major study of the U.S. population (Moschis, Lee, Mathur, & Strautman, 2000).

It can therefore be expected that bodily aspects are good predictors for a young subjective age. This connection has been confirmed in previous studies for the respondents' health state (Baum & Boxley, 1983; George et al., 1980; Gwinner & Stephens, 2001; Markides & Boldt, 1983; Markides & Ray, 1988; Mutran & George, 1982; Sirgey et al., 1991) as well as attractiveness (Guiot, 2001); see also Section 2.2.

The variable of bodily fitness was included newly in this work, it has to my knowledge not yet been examined in earlier studies on subjective age correlates.

2. *General life satisfaction and Personality aspects like self-efficacy belief and optimism:*

Myers and Diener (1995) showed that positivity bias is stronger for people with high life satisfaction, self-efficacy belief and optimism. It was therefore hypothesized that life satisfaction, self-efficacy belief, and optimism correlate with a young subjective age, assuming that the general tendency to a young subjective age is a special case of positivity bias.

The connection of subjective age with self-efficacy belief and satisfaction has already been shown in previous literature (cf. Baum & Boxley, 1983; Barak & Gould, 1985; George et al., 1980; Mutran & George, 1982). The variable of optimism has to my knowledge never been examined in earlier studies, and was newly included here.

The following *behavioral* variables were newly included in this study and are also hypothesized to correlate with subjective age:

1. *Recently learnt things:* According to the socio-emotional selectivity theory, which was described in Section 2.1.4 (cf. Carstensen et al., 1999; Fung et al., 1999; Lang & Carstensen, 2002), the limited future time

perspective that comes along with aging leads to an increased importance of emotional goals, and a decreased importance of knowledge-oriented goals. If subjectively old people also perceive time to be more limited than subjectively young people, we would expect them to have less knowledge-oriented goals, that is to be less interested in learning new things.

2. *Openness for new media:* For the same reason, we would expect subjectively young people to be more interested in interacting with computers, e-mail and internet, but also gadgets like mobile phones, since dealing with these media means also having constantly to learn new things.
3. *Engaging in “youth-preserving” activities:* There are a lot of activities that are supposed to delay the process of aging (or at least the process of looking or feeling older) like exercise, healthy food, cosmetic products, surgery, youthful clothing, memory training, and so forth. If at least some of these activities are useful—or entail effort justification—, engaging in them should lead to a young subjective age.

*Demographic correlates* are presumed not to play a very prominent role as subjective age predictors, since previous findings showed inconsistent results.

Instead of formulating single hypotheses for each of these potentially predictive variables, the above discussed considerations are integrated in a hypothetical predictive model, as shown in Figure 5.1.

An additional hypothesis concerns the *attitude towards old age*, which is an interesting variable, since there are two possible ways of influence: From first intuition we would probably suppose that a negative attitude towards old age will lead to a young subjective age, because people who view old age negatively would try to dissociate themselves from being old. However, Gwinner and Stephens (2001) found that people who felt older were also more likely to hold negative attitudes towards the elderly. The authors ascribe this finding to their highly educated sample, but there is an other possible explanation that would speak for a real correlation between an old subjective age and negative views of old age: a positive attitude towards aging as well as feeling young are both genuinely positive things for an individual, both probably correlated to life satisfaction, and therefore also to each other. In that case, however, the correlation is expected to vanish if it is controlled for satisfaction.

Hence I have included the attitude towards old age into the hypothetical predictive model, where I have placed it into the same group as optimism and self-efficacy. In addition I suggest the following hypothesis:



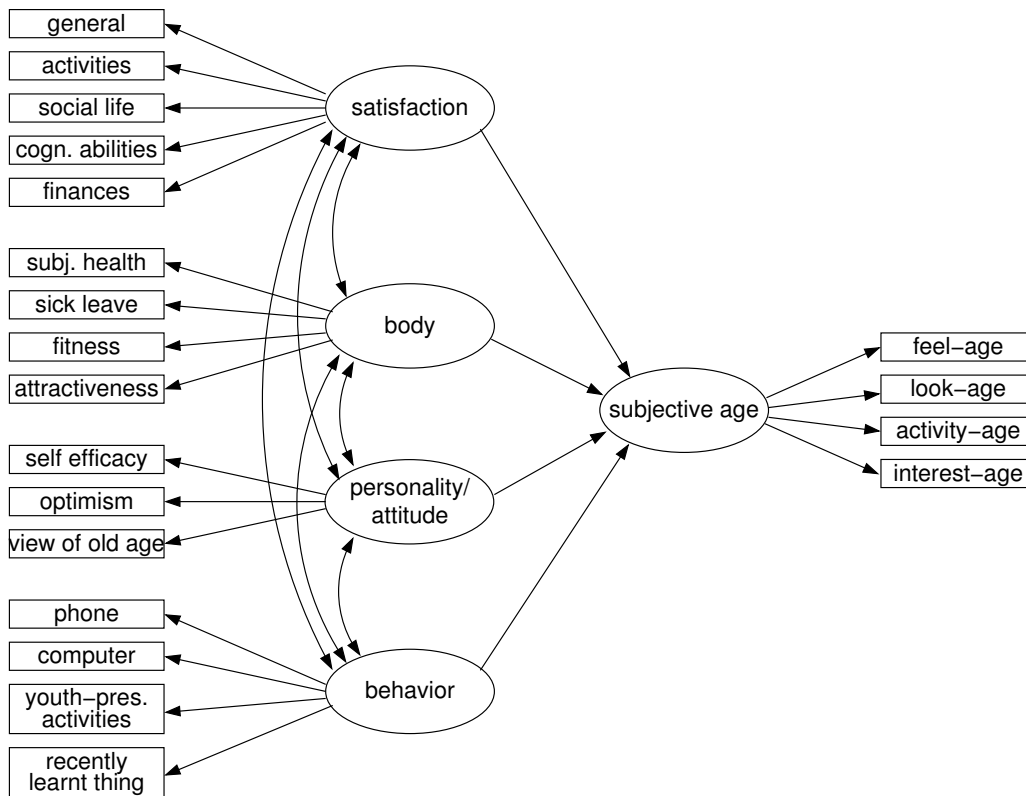


Figure 5.1: Predictive path model of subjective age

**Hypothesis VI:** A positive attitude towards aging correlates with a young subjective age, but the correlation will disappear when controlled for satisfaction.

## 5.2 Method

### 5.2.1 Participants

The characteristics of the sample are described in detail in Section 4.2.1.

### 5.2.2 Apparatus

These research questions were addressed in the same survey that was described in the previous chapter. The entire standardized questionnaire is included in Appendix A. In the following, the constituent questions or scales that are relevant for this chapter will be described (the items have here been translated into English by the author).

## 1. Subjective Age Measures

The study used nine items to determine the participants' comparative subjective age <sup>1</sup> in general as well as regarding specific domains. The domains covered bodily, cognitive and social aspects of how old one feels.

One item measured the subjective age in general with the question: “*If you compare yourself to people your age, how old do you feel in general?*” There were five answer possibilities ranging from “*much older*” to “*much younger*”.

Eight items then covered specific bodily, social and cognitive domains of subjective age:

*If you compare yourself to people your age and think about different life domains, how old do you feel, regarding:*

- *your bodily fitness?*
- *your activities?*
- *your relations to other people?*
- *your interests?*
- *your mental abilities?*
- *your esteem by society?*
- *your esteem by your family and friends?*
- *your attractiveness?*

For every item, there were again the same five answer possibilities ranging from “*much older*” to “*much younger*”.

Four of these overall nine items corresponded to Kastenbaum et al.'s (1972) four aspects of subjective age (“*ages of me*”): the general feeling (= *feel-age*), the activities (= *activity-age*), the interests (= *interest-age*), and the attractiveness (= *look-age*)

Additionally, the participants were asked how old they felt *in years*, how old other persons would estimate them and how old they would prefer to be.

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<sup>1</sup>Since the age range of the participants in this study was not much more than a decade (58–70 years), the subjective age was not measured with the more frequently used subjective age measure “age-decade scale” (Barak, 1987; Kastenbaum et al., 1972). Instead, a comparative age measure for the various domains was used, presenting answer possibilities from “*much older*” to “*much younger*”

## 2. Health Measures

There were two items regarding the health state of the participants, one on the general subjective health state, asking: “*How would you characterize your general health state?*”, with five answer possibilities from “*very good*” to “*very bad*”.

Another item referred to behavioral consequences of the health state, asking: “*How many times have you been ill in the past 12 month, so that you could not accomplish important everyday tasks?*”, with five answer possibilities: “*never*”, “*once*”, “*twice to three times*”, “*more than three times*”, and “*chronically*”.

## 3. Demographic Measures

Several demographic specifications were asked with direct standardized questions, which have been described in Section 4.2.2 (see also Appendix A): sex, year of birth, education level, professional status, and retirement status (retired vs not yet retired).

## 4. Psychographic Measures

**Self-Efficacy:** This study’s measurement of perceived self-efficacy relied on five items of the German Version of Jerusalem and Schwarzer’s (1981) General Self-Efficacy Scale. The items have been specified in Section 4.2.2.

**Optimism:** The respondent’s optimism was measured with five items of Scheier and Carver’s (1985) Optimism Scale (German translation by Wieland-Eckelmann & Carver, 1990).

The items were here re-translated into the English language, the original wording can be seen in the questionnaire in Appendix A.

- *I always face the future optimistically.*
- *Things are never never developing the way I would like them to.*
- *I always see the good side of things.*
- *I believe in the idea that bad days will be followed by good days.*
- *I seldom pay attention to the good things that are happening to me.*

There were five answer possibilities to rate every statement: from “*I strongly agree*” to “*I strongly disagree*”.

**Satisfaction:** There was a satisfaction scale of ten items asking the respondents how satisfied they were with different life domains, as was described in Section 4.2.2.

**Attitude Towards Aging:** The measurement of the respondents’ attitude towards aging is also described in more detail in Section 4.2.2:

- (a) There was a scale of three direct questions asking the respondents how positive or negative they judged higher age.
- (b) Additionally, there was a scale with associative ratings providing information as to how positively or negatively associated a respondent’s image of older age was.

## 5. Behavioral Measures

**Work with Computer, E-mail and Internet:** Respondents were asked how often they worked on a computer or with e-mail or Internet. There were five answer possibilities to both questions (“*not at all*” to “*several times a week*”). The midpoint values of responses to both items were averaged to obtain a scale.

**Mobile Phone:** There was one item asking the respondents if they have a mobile phone or not.

**Learning New Things:** Respondents were asked what they had learnt in the last few years. They were given five answer suggestions (e.g., a foreign language, working with the computer, etc.) and were asked to mark with a cross every appropriate answer. Furthermore, they were given free space to list additional things that they had learnt.

The number of crosses and free answers were counted.

**Engaging in “Youth-preserving” Activities:** Respondents were asked what they did to feel or appear youthful. They were given eight answer suggestions (e.g., taking exercise, dying hair, training memory skills etc.) and were asked to mark with a cross every appropriate answer. Furthermore, they were given free space to list additional things.

The number of crosses and free answers were counted.

### 5.2.3 Procedure

The explorative interviews and the questionnaire study were realized as described in Section 4.2.3. For the data analysis, the following statistical procedures were used: Structural equation modeling with AMOS (Version 4.0); scale reliability analyses, t-tests, factor analyses, correlations and multiple regression analyses with SPSS (Version 11.0), and testing for significant differences between correlations with COR (Version 1.1) by Staufenbiel (2001).

## 5.3 Results and Discussion

### 5.3.1 Qualitative Interviews

#### Feeling Old

In the explorative interviews we have asked the participants:

“Do you sometimes feel *old* or *older*?”.<sup>2</sup>

This question is strictly speaking not an open question, since it would be possible to answer it only in terms of “yes” or “no”. Nevertheless, the participants always gave more precise and explaining answers, some of which will be presented in the following. The answers will here be translated in English; the original answers in German are reprinted in Appendix B.

The majority of the participants gave a rather clear “no”, saying that they did *not* feel old or older:

A teacher who had voluntarily retired at the age of 62—just two months before the interview took place—said: “Not at all. My working efficiency and ability is still very good, in comparison to colleagues, several of whom are completely burnt out.”

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<sup>2</sup>Paradoxically, *older* is by most people considered as younger than *old*—or also as “not as bad as *old*”. It is possible that *older* is not seen always as a comparison to *old* (in the sense of the grammatical forms of comparison: *old*, *older*, *oldest*), but equally as a comparison to *young*, so that the rank order of increasing age would then rightly be: *young*, *older*, *old*.

An other 62-year old man said: “No, and I know also that I give the impression of being younger than I am. (...) I am not very tolerant towards elderly people. For example, they often get on my nerves when they are so slow, when they get in my way, for instance when I go shopping, or in public transports.”

One woman said: “I am now 67 years old, but I do not have the feeling that I am getting old or older. I don’t know how I will be later, the way I will be and if I will be fine. But at the moment I have the feeling that I’m living and I’m doing fine.”

A 67-year old man stated also quite unmistakably: “No, actually I never feel older or even old. (...) I am just amazed at the fact that I should be older than 60 already!” At a different point of the interview she illustrated this further with an example: “One day our municipal community here invited the people who were 60–70 years old, in order to hear their wishes and concerns. Somehow I did not feel that this addressed me at all.”

So these people clearly distanced themselves from being old or belonging to the category of the elderly. The last quoted man did not even feel addressed by an invitation for people his age, even though the invitation was directed in a quite neutral way to the “60-70-year old”, thus avoiding to categorize these people as elderly or seniors. It seems however that “60-70 years old” is not really considered as neutral by this man, but already as a category he does not feel he belongs to.

In all statements it is clear that to feel old is something rather negative.

Only two of the 13 persons stated clearly that they did feel old or at least older. Interestingly, the two were a couple (but were interviewed independently).

The husband, who was 67 years old, stated that he felt “*older* at any rate, yes”, *older* being for him clearly less negative than *old*, which was a term that he was reluctant to use.

His wife put it in a more straightforward way: “I don’t really see this as a problem. With 66 years you are old, for 66 years you have lived, and so many things are not to come any more, and this is simply a fact. This is also why I don’t dye my hair and all these things. Sometimes it is not so easy either, for example when I go shopping and want to buy clothes. But as long as you don’t lose your humor, the older age shows also its beautiful side. (...) The memories, for instance, are something beautiful, telling stories to my grandson or so.”

So, this woman was the only one of the participants who agreed fully with being in the category of the *old*.

Another woman was much more ambivalent and showed a very pronounced discrepancy between the way she felt, and the social category of

“being old” which she thought she belonged to: “Well, I do not feel old. Older—this—I feel it only through my environment: that I am getting older. When I am going to the baths and want to buy my ticket, they ask me: ‘are you a retiree?’ [therefore entitled to enter at a reduced price]. There it annoys me, but I find myself very often as an elderly woman now, and this—I have to get over this somehow—this is what I am. It’s what I am, and I know it’s what I am, but I don’t feel like that.”

This statement is a very revealing illustration of the fact that the age identity of people in that age is very ambivalent and holds a potential for inner conflict.

### **Personal Definitions and Criteria of *Old Age***

We were furthermore interested in how the participants would define old age, that is, what criteria would have to be fulfilled so that a person would say: “now I am old”, or “now I feel old”. Therefore, the persons who said that they already felt old were asked since when this had been the case. On the other hand, the persons who did not feel old were asked what would have to happen for them to feel old, and at which point they would start to consider themselves as old. All of the persons were asked if there were special situations or circumstances when they felt more or less old.

There were several criteria that seemed to be substantial for “being old”:

#### **1. Bodily decline:**

- “if my legs feel heavy”
- “the wrinkles on my skin”
- “Since I have hurt my knee on a walk. At that moment I realized: You are not like the young anymore.”
- “A year ago, after that shoulder accident, I felt old as the hills. That feeling was over as soon as the shoulder was cured. At that time, age was negatively charged, so sapless and feeble, exhausted, tired out, finished. (...) When I don’t feel well physically, it can happen that I sometimes feel older, but as strong as after the shoulder accident—there it was really very bad.
- “The libido is not as strong anymore. Everything that is corporeal is not as full of relish as it was formerly.”
- “The rheumatic pains, the heart rhythm disturbance—, one is not actually quite young anymore!”

**2. Retirement:**

- “In the last months, since I was retired, I thought many a time: Now you have put yourself on the scrap heap, with the early retirement.”
- “(...) that I don’t have a concrete task anymore like I had in my job formerly.”

**3. Inner feeling:**

- “(...) however, this is not a constant feeling. It’s stronger if I don’t feel so well.”
- “My age is determined by my inner well-being”

**4. Being out-of-date, incompetent:**

- “(...) to have deficits, efficiency and motivation deficits, not to be professionally and technically up-to-date anymore”.
- “(...) if I don’t continue with my professional development/permanent education.

**5. Experience:**

- “... but on the other hand: the experience with patients [in the psychiatrist’s practice]. There the age is an advantage. This is sometimes even explicitly demanded by the patients, that they want somebody who is already older.”

**6. Limitation of the future:**

- “The age has rather an impact through the choices I make myself, for instance that I withdraw from certain roles. The awareness that I have only a certain number of years left has more impact than that I would feel something.”

**7. Social roles:**

- “... when I am with my grandchildren”.

**8. Calendric age limit:**



- “From 80 years on, people are old for me, there I would set the limit”.

Thus, the feeling of being old can be grounded on a variety of characteristics. Most of all bodily aspects—mostly deficits—were named. This confirms the view of Öberg (1996) who asserts that aging is mostly experienced through the body.

### Reflections about Youth

Another way of approaching the question of attitudes towards aging is to look at the contrary of old age: youth. We have therefore analyzed those statements occurring during the interviews that alluded to young people or youth in general. Additionally, we have included into the interview-guideline the explicit question if the interviewee would like to be young again.

Of all 13 respondents only one woman said that she would: “I would like to start being 30 again. I would have liked to become a veterinarian.” And later in the interview she added: “Young people are freer and more daring.”

On the other hand, there were three respondents who stated unambiguously that they would by no means like to be young again:

- “No, to be young is not what I would prefer to be. Nor would I want any of their [young persons’] characteristics.”
- “I don’t envy them [young people] at all.”
- “I wouldn’t like to be young again. At the moment no characteristic of youth occurs to me that I would like to have.”

All other respondents were a bit more ambivalent: They all stated quite clearly that they would *not* want to be young again (especially not nowadays, as several of the respondents emphasized), however, they acknowledged that there were positive aspects of youth that they missed sometimes, or that their higher age had also serious disadvantages:

- “Nowadays I would not want to be young again (...) [e.g., there are very different conditions of studying medicine today]. But I am not glad to be as old as I am, no, I couldn’t say this either. I would judge higher age rather negatively (...). The end simply approaches irrevocably, and I don’t find this so funny.”

- “I would not want it [being young] any more, in spite of everything. I’m sometimes afraid about what might await them [the young].”
- “Well, there is this feeling sometimes [that I want to be young again], but the other thing is more frequent, that I am glad to be so old.” The feeling of wanting to be young again occurs “(...) mostly regarding my physical ability and fitness, for example when I go mountain climbing. Or also regarding the relations to the opposite sex. These are rare moments where this feeling flares up.”
- “Well I *have* been young, I wouldn’t want this anymore. It’s so normal actually. Life has its beautiful aspects in each stage.” (...) “I do envy them [the young] their vitality (...) a certain insouciance and the mental agility.”
- “I would not want to be young again, no, but I would like to stay as I am now, as long as possible. This is really something that bothers me, that the future is so limited now. When I was younger I never had this feeling, this awareness that I will not be able to do everything in my life that I would like to do. For example regarding traveling: there are lots of beautiful places on earth which I will probably never get to know, simply because there is not enough time for everything.”

Thus, there were different aspects that these persons see as problems of higher age: one negative aspect seems to be the bodily decline, and as a consequence the decreasing fitness and attractiveness. Further, the mental ability and flexibility of younger people seem to be an enviable characteristic of younger people. An altogether different consideration is the increasingly limited future perspective, which is clearly a threatening aspect of higher age, independently of how positive or negative this stage of life is judged in general.

### 5.3.2 Evaluation of the Measurement Models

In the following, the operationalization of the variables in the questionnaire will be evaluated. Some of the here relevant variables (namely the satisfaction, the attitude towards aging, and the self-efficacy belief) have already been assessed in the last chapter and will therefore not be included in this description.

### Structural Measurement Model of Subjective Age

One of the objectives of this work was to evaluate Kastenbaum et al.'s (1972) model of subjective age, which has often been used, especially in marketing psychology (cf. Barak et al., 2001a; Barak et al., 2001b; Barak & Rahtz, 1990; Mathur et al., 2001; Staats, 1996; Staats et al., 1993), but was never evaluated or compared with other measures of subjective age.

The measurement model of subjective age will therefore be analyzed in more detail than the other variables, the assessment including not only reliability and factor analysis, but also a structural equation model in order to determine the fit of the measurement model with the empirical data. Structural equation modeling has the advantage of simultaneously estimating the strength of each relationship within the model and explicitly accounting for error variance.

Table 5.1 shows the means and item-total statistics of the subjective age scale comprising all nine items that were acquired in this study. That is, the scale included not only Kastenbaum et al.'s items (items 1, 3, 4, and 9: "feel-age", "activity-age", "interest-age", and "look-age") but also five additional items concerning other aspects of subjective age.

Item: (domain of subjective age)	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>general feeling</i>	3.73	.63	.84
<i>fitness</i>	3.51	.57	.85
<i>activities</i>	3.65	.62	.84
<i>relations to others</i>	3.56	.54	.85
<i>interests</i>	3.66	.54	.85
<i>mental abilities</i>	3.53	.56	.84
<i>esteem by society</i>	3.46	.60	.84
<i>esteem by family and friends</i>	3.63	.59	.84
<i>attractiveness</i>	3.49	.62	.84

Table 5.1: Reliability analysis: means and item-total statistics for the measurement of subjective age

The scale proved to be internally stable with Cronbach's alpha = .86; all corrected item-total-correlations were larger than .5.

When only those items were joined to a scale that formed Kastenbaum et al.'s (1972) scale (items 1, 3, 4, and 9), Cronbach's alpha decreased to .74; all four corrected item-total-correlations being larger than .4. This still represents an satisfactory reliability. The shortness of this reduced scale is

certainly an advantage regarding the usability of the scale—given that it is still reliable—because the economy of a scale is an important criterion for most questionnaire studies.

Figure 5.2 shows a structural equation model that represents Kastenbaum et al.’s four aspects of subjective age.

The modeling was realized with AMOS, a program that uses full information maximum likelihood (FIML) estimation as an own built-in imputation procedure to deal with missing values. The details of the estimation can be viewed in Appendix C.

The goodness of fit of this model proved to be high;  $\chi^2(2) = 1.223$ ,  $p = .542$ , TLI = 1.00, CFI = 1.00, RMSEA = .00. Especially the chi-square was astonishingly low (and the p-value accordingly high), given the fact that these criteria are usually not used because they are considered to be too severe to be realistic (Hu & Bentler, 1998). Since the chi-square value is sample-sensitive, it is especially difficult to obtain non-significant p-values for large sample sizes. Thus, it appears safe to say here that Kastenbaum’s model fitted the empirical data exceptionally well.

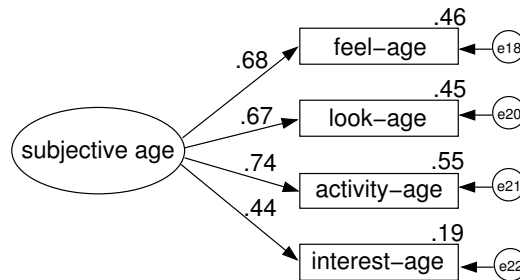


Figure 5.2: Structural measurement model of subjective age, based on Kastenbaum et al.’s “ages of me”

Adding more items, as well as exchanging one or more of Kastenbaum et al.’s items with any other of the nine items resulted in a dramatic decrease of the goodness of fit, all modified models showing chi-squares larger than  $\chi^2(2) = 11$  ( $p < .01$ ), and RMSEA larger than .1. This is a clear confirmation of the first hypothesis suggesting that Kastenbaum et al.’s (1972) four aspects are a good measurement model for subjective age.

This high model fit suggests that the structure of Kastenbaum et al.’s (1972) four aspects of subjective age is one-dimensional. A factor analysis including those four items showed indeed that they all load on the same factor (see Appendix C). However, including all nine items in a factor analysis provided two factors, as can be seen in Table 5.2 (cf. also Appendix C).

	Component	
	1	2
general feeling		.626
fitness		.944
activities		.730
relations to others	.827	
interests	.801	
mental abilities	.743	
esteem by society	.644	
esteem by family and friends	.579	
attractiveness		.798

Table 5.2: Principal component analysis with different aspects of subjective age: rotated component matrix (Oblimin with Kaiser normalization, absolute values less than .3 suppressed)

This finding contradicts the second hypothesis: the construct of subjective age seems to consist not only of one but of two—though not independent—factors. A possible interpretation of the two factors is that Factor 1 covers the cognitive and social aspects, whereas Factor 2 covers the rather body-oriented aspects of subjective age.

If the term *dimension* is interpreted as *independent factor*, even the nine items that loaded on two different factors do not belong to different dimensions, as can be seen clearly in the component plot in Figure 5.3.

Thus, these findings confirmed only the first part of Hypothesis II: The model of Kastenbaum et al. (1972) seems indeed to be a one-dimensional model. It is therefore not indicated to refer to these four aspects as a four-dimensional model of subjective age. However, if more aspects of subjective age are analyzed, it appears that the construct of subjective age consists of two factors, one of them covering cognitive and social aspects, and the second covering bodily aspects.

Since Kastenbaum et al's (1972) four aspects showed to be appropriate to measure subjective age, all of the following computations in this chapter are based on that four-item scale instead of the expanded scale consisting of nine items, in order to allow better comparability of the present results to the results of previous (and hopefully future) studies.

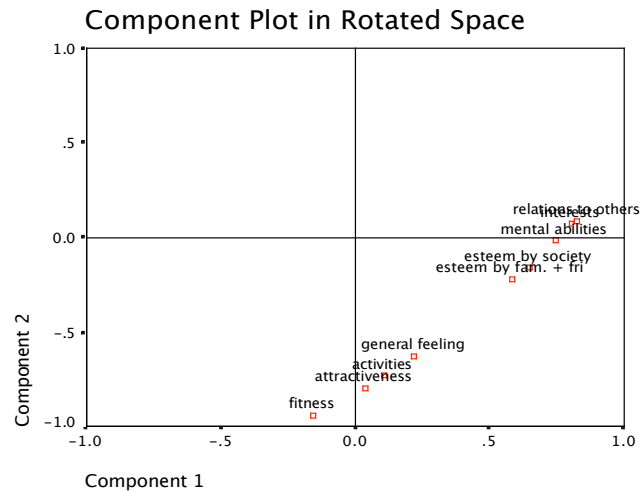


Figure 5.3: Principal component plot in rotated space showing different aspects of subjective age (Oblimin with Kaiser normalization)

### Measurement of Optimism

The measurement of optimism relied on five items of Scheier and Carver's (1985) Optimism Scale (German translation by Wieland-Eckelmann & Carver, 1990).

Table 5.3 shows the items of the scale with the means and item-total statistics.

The scale had a Cronbach's *alpha* of .64, which is not very high but sufficient, given that in this study the scale was not used to differentiate between individuals but between groups. All corrected item-total-correlations were above .3 and could therefore be kept in the scale.

### Work with Computer, E-mail, and Internet

The two questions regarding the frequency of the respondents' use of computers, e-mail and Internet could be joined to a reliable scale, with Cronbach's *alpha* = .87. As is shown in Table 5.4, the corrected item-total correlation was accordingly high with  $r = .78$ .

Item:	Mean score	Corrected item-total correlation	Alpha if item deleted
<i>I always face the future optimistically.</i>	1.91	.44	.57
<i>I always see the good side of things.</i>	1.78	.48	.56
<i>I believe in the idea that bad days will be followed by good days.</i>	1.41	.46	.59
<i>Things are never developing the way I would like them to.</i>	2.60	.32	.64
<i>I seldom pay attention to the good things that are happening to me.</i>	2.11	.38	.61

Table 5.3: Reliability analysis: means and item-total statistics for the measurement of self-efficacy belief

Item:	Mean score	Corrected item-total correlation
<i>How often do you use a computer?</i>	2.57	.78
<i>How often do you use e-mail or Internet?</i>	2.06	.78

Table 5.4: Reliability analysis: means and item-total statistics for the variable: work with computer, e-mail and Internet

It can be concluded from these analyses that all measurement models used in this study were satisfactorily reliable, and are therefore usable instruments to investigate the present research questions.

### 5.3.3 The Tendency of People to Underestimate Their Age: Descriptive Results

The participants' average *real age* was 63.65 years ( $SD = 3.77$ ), but they rated their subjective age or *feel-age* on average 5.57 years younger, that is 57.94 years old ( $SD = 6.18$ ). They estimated the age that others would give them 57.78 years old ( $SD = 5.26$ ), i.e. 5.72 years younger than their real age. When asked how old they would like to be, participants specified their ideal age as 55.07 years old ( $SD = 12.49$ ), that is 8.38 years younger than their real age.

The standard deviation was higher for subjective than for real age, and still higher for the ideal age. That is, the respondents gave less homogenous answers when asked how old they *felt* or how old they would *prefer* to be

than when asked about their real age.

When participants were asked to compare themselves to other people, 67.7% stated that they felt younger or very much younger, 29.7% that they felt about equally old, and only 1.9% that they felt older or very much older than most other people of their age cohort (see Figure 5.4).

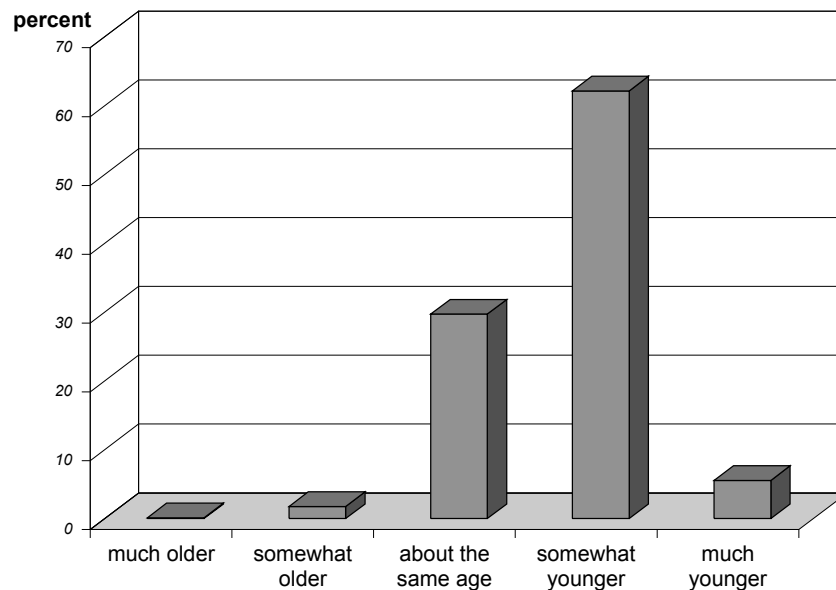


Figure 5.4: Answer distribution of comparative subjective age ratings

These percentages suggest that a considerable part of the participants did not possess an accurate view concerning their own and other people's subjective age, since it is not possible that more than 50% are younger than most other people. Assuming that the sample was tolerably representative, the distribution should be more or less symmetrical if the ratings were accurate. This was clearly not the case here.

These findings were consistent with previous studies on subjective age, all showing a considerable general underestimation of one's age. However, the results for the absolute subjective age showed that in this study the discrepancies between real age and feel-age as well as ideal age were much less pronounced than they were in former studies with other samples: For



instance, Öberg and Tornstam (2001) found that Swedish people in that age group felt around 15 years younger than their real age, and the ideal age was even around 20 years younger than the real age. It is possible that these considerable differences between the studies were due to intercultural differences.

### 5.3.4 Assessment of Two Theoretical Approaches Explaining Subjective Age Bias

Based on the self-enhancement approach, a question of this study was if the subjective age bias implies a motivational component. The next three hypotheses deal with this question:

#### Attitude Towards Aging and its Moderating Influence on Subjective Age Correlates

Hypothesis III concerns the moderating influence of the attitude towards old age, the question being: is the correlation between a young subjective age and a high life satisfaction stronger for people with a negative attitude towards old age?

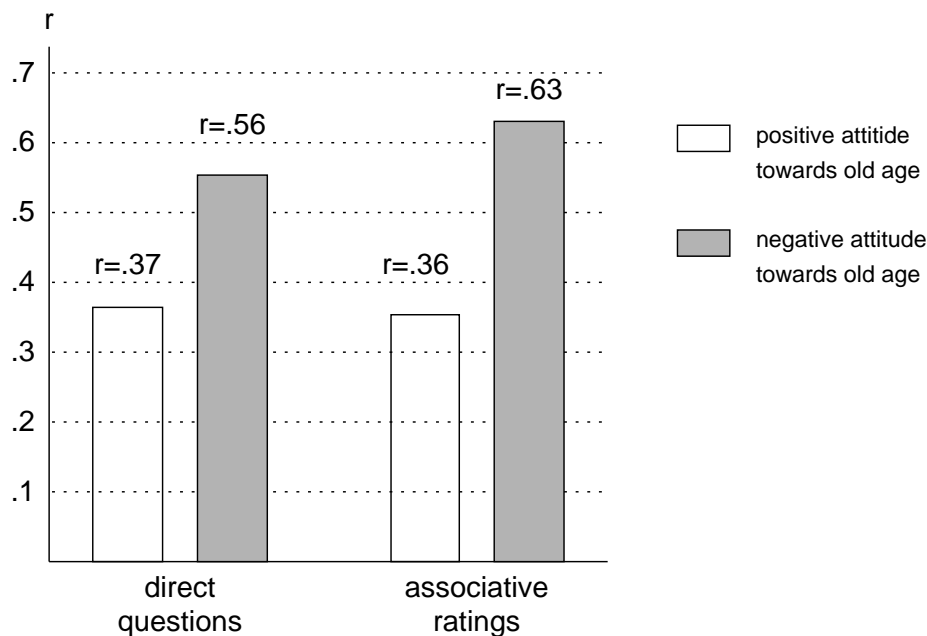


Figure 5.5: Correlation between young subjective age and high life satisfaction showing a moderating effect of the attitude towards old age

Figure 5.5 shows that this was indeed the case: for both measures of attitude towards old age (the direct and the associative question), a moderating effect on the interrelationship between subjective age and satisfaction could be shown. People who felt young were *in general* more satisfied with different aspects of their life—the correlation was in any case considerable—but this connection was especially strong for people with a negative view of old age. The difference between the correlations was highly significant for both measures; for the direct question:  $z(275, 475) = 3.15$ ,  $p(\text{one-tailed}) < 0.001$ ; for the associative ratings:  $z(359, 399) = 4.71$ ,  $p(\text{one-tailed}) < 0.001$ .

So these results so far suggested that there is a motivational component in people feeling younger than their real age.

However, the results showed also that a negative attitude towards old age could not entirely explain the fact that people felt more satisfied if they felt younger than their age cohorts. Even for people with a very positive view of old age, there was a connection between feeling young and a high life satisfaction.

In other words, there was a moderating, not a mediating effect of the attitude towards old age on the interrelationship of subjective age and satisfaction. The general negative view of old age in our society can therefore probably not be made entirely responsible for the fact that subjectively young people were more satisfied with different life domains.

### **Correlation of subjective age with optimism and self-efficacy belief**

Hypothesis IV concerned the correlation of a young subjective age with optimism and self-efficacy belief. If the general age underestimation is a special form of self-enhancement, young subjective age is supposed to correlate with high optimism and self-efficacy belief.

The findings showed indeed such a correlation for both personality traits: young subjective age correlates with high self-efficacy belief:  $r(772) = .305^{**}$ ,  $p < .001$  and with high optimism:  $r(772) = .303^{**}$ ,  $p < .001$ .

Both correlations remained also significant if controlled for satisfaction or health state, which is important because high satisfaction and good health do normally correlate with one another and also with a young subjective age, and those correlations would not necessarily imply a motivational component.

So, also for this hypothesis, it can clearly be said that the self-enhancement explanation is preferable, because those correlations would make no sense for the information-processing explanation.

### Bodily versus general subjective age

Hypothesis V regards the question if the subjective age is younger for bodily aspects or for the general subjective age.

The results showed that when the participants were asked about their *general* subjective age (i.e. the question: “If you compare yourself to people your age, how old do you feel *in general*?”) their subjective age was younger ( $M = 3.72$ ,  $SD = .59$ ) than when they were asked about bodily aspects of subjective age, i.e:

1. the subjective age regarding *attractiveness* ( $M = 3.48$ ,  $SD = .79$ ),  $t(765) = 9.14$ ;  $p$  (*one – tailed*)  $< 0.001$ ;  $d = 0.35$ ,
2. the subjective age regarding *fitness* ( $M = 3.50$ ,  $SD = .80$ ),  $t(780) = 8.54$ ;  $p$  (*one – tailed*)  $< 0.001$ ;  $d = 0.31$ .

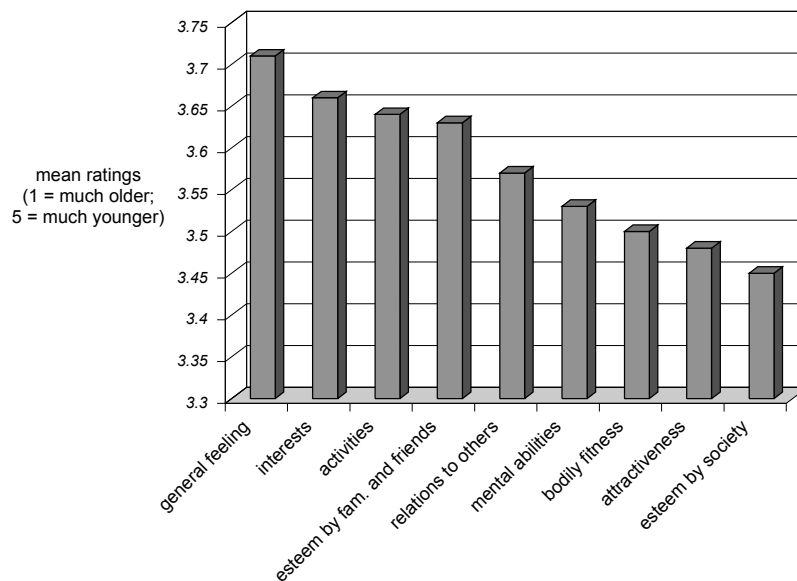


Figure 5.6: Answer distribution for different domains of subjective age

Figure 5.6 shows the average ratings of all subjective age domains that were measured here, illustrating the difference between the general subjective

age on one side and the bodily aspects (fitness and attractiveness) on the other side.

So this result as well speaks for the self-enhancement explanation, because people estimated themselves as younger for domains where there are less standards and less feedback, from the mirror for example.

So the conclusion to draw from this analysis is that the phenomenon of the subjective age bias implies a motivational component. It is not explainable merely with an information processing approach. We makes therefore sense to assume the subjective age bias to be a special form of the general tendency of self-enhancement or positivity bias.

### 5.3.5 A Predictive Structural Equation Model of Subjective Age

Table 5.5 shows the bivariate correlations between a young subjective age and different biological and physiological, demographic, psychographic and social psychological, and behavioral variables. Biological and physiological variables (i.e., bodily aspects like fitness and attractiveness) and psychographic variables (optimism, satisfaction, and self-efficacy belief) show the highest correlation with a young subjective age.

Since these bivariate correlations might be intercorrelated and are therefore probably not equal to the real predictive value of a variable, a multiple regression analysis was performed. Out of the potential predictors that were included into the analysis, five showed to have a significant predictive value: (1) satisfaction with the own bodily fitness, (2) satisfaction with the own physical attractiveness, (3) optimism, (4) the engagement in supposedly youth-preserving activities, and (5) subjective health state. This means that a young subjective age went together with higher satisfaction with fitness and attractiveness, higher optimism, more activities aimed to preserve youth, and a good health state. These five variables explained together 22.5 percent of the variance ( $R = .594$ ).

	Correlation with young subj. age	Degrees of freedom ( $n - 2$ )
<b>Biological and Physiological Variables</b>		
<i>Health</i>		
Good self-descriptive general health	.387 **	787
Low frequency of sick leave	.229 **	783
<i>Satisfaction with physical attractiveness</i>	.432 **	760
<i>Satisfaction with fitness</i>	.454 **	769
<b>Demographic Variables</b>		
<i>Sex (male)</i>	.058	788
<i>Marital status</i>		
Being married	.005	780
Living in a partnership	.001	780
<i>Chronological age</i>	.019	775
<i>High education</i>	.069 *	787
<i>High professional status</i>	.162 **	785
<i>Being retired</i>	-.125 **	787
<b>Psychographic and Social Psych. Variables</b>		
<i>High self-efficacy belief</i>	.305 **	772
<i>High optimism</i>	.303 **	772
<i>High life satisfaction</i>	.483 **	773
<i>Social support</i>		
Frequency of contact to different people	-.013	780
Supportiveness of different contacts	.005	779
<i>Positive attitude towards aging</i>		
Direct question	.271 **	765
Associative question	.154 **	771
<b>Behavioral Variables</b>		
<i>Amount of recently learnt things</i>	.162 **	700
<i>Amount of supposedly youth-preserving activities</i>	.309 **	781
<i>Working with computer, e-mail and internet</i>	.207 **	785
<i>Using a mobile phone</i>	.125 **	788

Table 5.5: Pearson correlations between subjective age and different variables; \* $p < .05$ ; \*\* $p < .01$

Table 5.6 shows the coefficients for the dependent variable *subjective age*.

Cross validation proved the model to be internally stable, both halves of the randomly split sample showing approximately equal  $R$ -values;  $z(390/402) = 1.02$ ,  $p(\text{two-tailed}) = .31$ , see also Appendix C.

	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	t	Sig.
<i>(Constant)</i>	4.647	.120		38.726	.000
<i>Fitness</i>	-.106	.033	-.181	-3.203	.001
<i>Attractiveness</i>	-.142	.033	-.222	-4.336	.000
<i>Optimism</i>	-.152	.042	-.155	-3.644	.000
<i>youth-preserving act.</i>	.049	.014	.155	3.614	.000
<i>Optimism</i>	-.128	.036	-.178	-3.563	.000

Table 5.6: Stepwise multiple regression: coefficients for the dependent variable *subjective age*

To further explore the relationships between various predictors and subjective age, structural equation modeling (SEM) was used to test for significant relationships.

Figure 5.7 shows the final path model, which is based on the hypothetical model as shown in Figure 5.1.

Again, the modeling was realized with AMOS, that is, full information maximum likelihood (FIML) estimation was used. The details of the estimation can be viewed in Appendix C.

The chi-square fit index was  $\chi^2(160) = 670.72$ ,  $p < .001$ . A significant chi-square statistic signifies that the model differs significantly from the empirical data. However, since the chi-square statistic is sensitive to sample-sizes, it has been found to over-reject substantially true-population models in settings with large sample sizes (cf. Hu & Bentler, 1998; Backhaus, 1996). Thus, the Tucker-Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) were additionally examined, the RMSEA being especially appropriate for complex models. All of these indices provide evidence of adequate model fit; TLI = .97, CFI = .97, RMSEA = .09.

The model can therefore be accepted. It shows that all included latent variables were meaningful predictors for subjective age, the best predictors being bodily aspects and satisfaction.

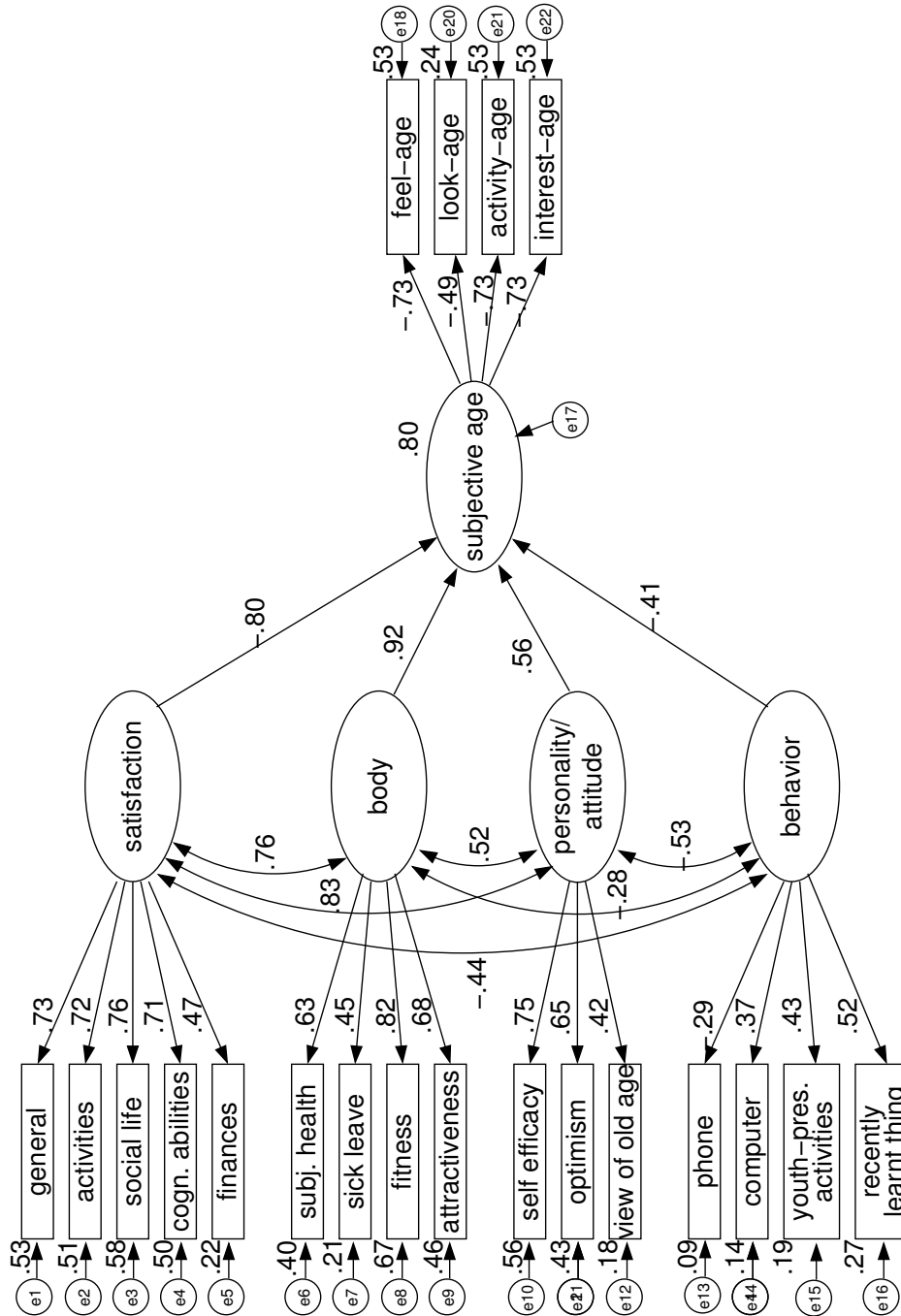


Figure 5.7: Predictive structural equation model of subjective age

As it can be seen in the structural model, there is a significant path between the respondents' attitude towards higher age and the subjective age. A positive attitude towards higher age correlated positively with a young subjective age; for the direct question:  $r(767) = .271, p < .001$ ; for the associative ratings:  $r(773) = .154, p < .001$ . This corresponds to the unexpected findings of Gwinner and Stephens (2001), suggesting that these findings were not just, as the authors assumed, measurement artifacts due to sample irregularities, but that they reflect correlations that do exist in the population. In the sixth hypothesis it was suggested that this correlation can be explained by a higher life satisfaction of both people with positive attitudes towards higher age and subjectively young people. For the associative ratings, the correlation between feeling young and viewing higher age positively indeed disappeared when controlled for satisfaction,  $r(757) = .02, p = .67$ . However, for the direct question, the correlation remained significant,  $r(749) = .15, p = .001$ .

Hypothesis VI was thus only partly confirmed: life satisfaction can not entirely explain the counter-intuitive fact that respondents who felt young had at the same time a positive view of old age.

## 5.4 Conclusion

The findings presented in this chapter support the classic measurement model of subjective age developed by Kastenbaum et al. (1972) that consists of four aspects, the so-called 'ages of me'. However, it could be shown that these four aspects cannot be interpreted as different dimensions as it was often done in previous literature (e.g., Barak et al., 2001b; Barak & Stern, 1986), but that the model is one-dimensional. The evaluation of this measurement model suggests that the model can be recommended for further use, since it has both exceptionally good fit indices as well as economic advantages, consisting of only four items.

The results showed further that the phenomenon of the subjective age bias implies a motivational—that is, self-enhancing—component. This does not rule out an influence of the fact that elderly people really may look younger today; what was shown here is only that this simpler approach is not sufficient as an explanation. So we can assume that the subjective age bias is a special form of the general tendency of self-enhancement or positivity bias. It would make sense to include this theoretical frame in future studies of the phenomenon, because there is a rich body of research in the field of self-enhancement which has so far been ignored by studies of subjective age.

The predictive path model of subjective age showed that bodily aspects



explain the largest part of the variance of subjective age. The importance of the body in the experience of aging was further shown in the factor analysis of the different aspects of subjective age, where the general feeling of subjective age loads higher on the factor comprising bodily aspects than on the factor comprising cognitive and social aspects. Also in the qualitative interviews, bodily deficits were named most frequently as characteristics of old age. All these findings confirmed the view of Öberg (1996) that aging is experienced to a large extent via the body, which is not enough taken into account by social gerontological research. It would thus be important for further research in the social gerontological field to overcome the still present implicit dualism of the Platonic-Christian tradition—seeing body and mind as hierarchical opposites—and include considerations about the body increasingly into the studies (Öberg, 1996).

The structural equation model showed further that psychographic variables like satisfaction, personality and attitude towards aging are also valid predictors for subjective age. That is, people who feel especially young are more satisfied with their lives, have high self-efficacy belief and are optimistic. Interestingly, they even have a more positive attitude towards aging. Thus, the tendency to feel younger than one's calendric age seems not to be the consequence of a negative image of old age. However, it could be shown that the connection between a young subjective age and high satisfaction was stronger for people with a negative attitude towards aging. A possible interpretation of these findings would be that our view of old age has an influence on how important it is for our well-being to feel young. A negative view of old age does apparently not make people feel especially young, but it may have the effect that people get more unhappy if they feel old. Of course, the causal direction of this interpretation remains speculation. It would be interesting to prove this hypothesis with an experimental design, for example activating negative or positive associations to old age in the subjects and then comparing the connection between feeling happy and feeling young.

The predictive value of the number of recently learnt things on the subjective age can be interpreted in the framework of socio-emotional selectivity theory: People who perceive their future time perspective as more limited have been shown to focus more on emotional and less on knowledge-oriented goals (e.g., Carstensen, 1992; Carstensen et al., 1999; Carstensen et al., in press; Fung & Carstensen, in press; Fung et al., 1999). Learning new things can clearly be seen as knowledge-oriented behavior. The fact that subjectively younger respondents specified more things that they had recently learnt indicates that to feel young might be linked to a less limited time perspective—in other words, people who feel young might indeed perceive death as further away than people who feel old.

Engaging in activities that are supposed to delay the process of aging (like exercise, cosmetic activities, healthy eating, memory training, etc.) was also a significant predictor for a young subjective age. The conclusion that these activities are therefore effective means of preventing people from feeling old is, however, only one way of interpreting this result. It is equally possible that these activities lead to effort justification, in the sense that people think that they must feel younger than other people if they do more for their looks, health, fitness and so on. It is even possible that the causal direction is inverse—that feeling young causes people to behave more youthfully. An experimental design might rule out the last interpretation, but not the impact of effort justification.

The finding that demographics, on the other hand, explain no significant part of the variance has consequences for marketing psychology. It implies that to get information about subjective age persons have to be questioned directly. The information cannot be derived from more easily available data, like sex, education, profession, family demographics, and so forth.

As expected, the respondents felt in general considerably younger than their calendric age. The comparison to a study in Sweden (Öberg & Tornstam, 2001), however, indicated that the respondents of the present study showed a much smaller discrepancy between their subjective and chronological age. To learn more about the reasons for these intercultural differences it might be interesting to compare the self-enhancing tendencies, as well as to analyze the images of aging and the attitude towards higher age of these different cultures.

## Chapter 6

### General Conclusion

My intention is to tell  
of bodies changed to different  
forms.  
The heavens and all below them,  
Earth and her creatures,  
All change,  
And we, part of creation,  
Also must suffer change.

---

*Ovid*  
Metamorphoses

**T**he findings of the present work allow us to draw one major conclusion that is shared by both empirical studies—holding for identity contents as well as for age identity: the development of identity with older adults is characterized by a high degree of continuity.

This was shown on one side for the domains of self-definition, where very few changes could be measured: there were only few differences between retired and not retired persons—with small effect sizes—, and no or only small correlations between increasing age and the importance of self-definition domains. The most significant effect of retirement on people’s self-description was found for leisure time activities that appeared to be more important for retired than for working people. There were some surprising persistences after retirement where changes could have been expected, the most surprising finding being probably that the professional identity was as important for the retired as for the working persons. It was not substituted by a kind of ‘retiree identity’. Neither were there any differences in the domains of volunteer work and memberships in clubs or associations: these were not more

important for retired than for working people.

On the other side this continuity was also shown regarding the respondents' subjective age, which was in most cases younger than the calendric age.

Recent findings with older age-groups suggest that this high internal continuity is also met by a high stability in the health state. It could be shown for example in the Swiss Interdisciplinary Longitudinal Study on the Oldest Old (SWILSO-O) that even in very old age a continuity of physical health—in good as well as bad health—was the most frequent pattern of aging. Over a period of five years, a decline of health concerned only one out of five persons over 80 years (Lalive-d'Épinay et al., 2001; Spini, 2001).

We have also seen that in general, the retired persons estimated more domains of self-description as important than did the not yet retired persons—no domain at all was getting less important after retirement. That is, the identity diversity was higher for the retired than for the not yet retired persons. The fact that high identity diversity correlated with a high satisfaction across different life domains speaks also for continuity and against the disengagement theory. The finding suggests that role disengagement is neither the normal nor the most successful way of aging. We might on the contrary assume positive consequences for people who maintain a high identity diversity, or even show an increase of identity diversity. (This is, however, only a hypothesis, since no causal direction can be inferred in this study.)

Thus, we can assume that the transition to retirement and to higher age does not imply a lot of changes in personal identities. It seems not to be a transition that leads to identity crises and transformations. This does not mean that the life situation of persons does not undergo substantial changes, but these appear not to have a strong influence on personal identities.

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# Appendix A

## Apparatus

- A.1 Interview Guideline for the Preliminary Inquiry
- A.2 Covering Letter for the Questionnaire
- A.3 Questionnaire

## Leitfaden für Explorationen zum Thema "Identitäten beim Älterwerden"

Fassung 19. 7. 2001

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Eine Arbeitsgruppe beschäftigt sich mit der Frage, wie wir Menschen uns sehen, wenn wir zwischen 55 und 70 Jahre alt sind. Ich danke Ihnen, dass Sie bereit sind, dazu einige Fragen zu beantworten.

Selbstverständlich können Sie Fragen, die Ihnen in irgend einer Weise unangenehm sind, nicht beantworten. Wir gehen dann einfach zum nächsten Punkt über. Sie können dieses Gespräch auch jederzeit abbrechen, wenn Sie dafür irgend einen Grund sehen. Ich denke aber, es sind nur ganz normale und alltägliche Themen, die ich ansprechen möchte.

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### 1. Welche Antworten würden Sie geben auf die Frage "Wer bin ich" ? Durch welche Merkmale würden Sie sich beschreiben?

- Und durch was noch?
- Und durch was noch?

Evtl. Nachfrage, falls vor allem Adjektive genannt werden: „Sie haben jetzt vor allem beschrieben, **wie** sie sind, können Sie noch mehr dazu sagen, **wer** Sie sind?“

- Wie **wichtig** sind diese Eigenschaften oder Rollen für Sie?
  - Welches ist die wichtigste?
  - Wie wichtig ist Ihr (ehemaliger) **Beruf** (der Beruf Ihres Mannes) für Sie? (Bitte erläutern lassen)
  - Wie wichtig war Ihr ehemaliger **Beruf** (der Beruf Ihres Mannes) für Sie im Alter zwischen 55 und 60 Jahren?
- 

### 2. Wenn Sie sich heute mit früher, also mit der Zeit vor 10 oder 20 Jahren vergleichen, welche Veränderungen sind da eingetreten?

Welche wichtigeren Veränderungen haben Sie **persönlich** in den letzten 10/20 Jahren erlebt bei den Menschen Ihrer Umwelt - Menschen aus Ihrer Familie, Ihrer Nachbarschaft, Ihrem Freundeskreis, den Organisationen, denen Sie angehören, Ihrer Wohngemeinde (der Schweiz, der "Gesellschaft"), Erwartungen und Normen?

Welche wichtigeren Veränderungen haben Sie **persönlich** in den letzten 10/20 Jahren erlebt in der dinglichen Umwelt - Ihrer Wohnung, Ihrer Wohngemeinde (der Schweiz, der Welt)?

Welche wichtigeren Veränderungen haben Sie **persönlich** in den letzten 10/20 Jahren erlebt an Ihrem Körper, an der Art und Weise, wie Sie Ihren Körper wahrnehmen und mit ihm umgehen?

Welche wichtigeren Veränderungen haben Sie **persönlich** in den letzten 10/20 Jahren erlebt an den Aufgaben, die Sie erfüllen - Aufgaben im Beruf, in der Familie, in der Freizeit, in Organisationen?

Welche wichtigeren Veränderungen haben Sie **persönlich** in den letzten 10/20 Jahren erlebt an Ihrer Person - Ihren Fähigkeiten, Ihren Eigenschaften, Ihren Zielen, Ihren Werten und Einstellungen?

- Sind Sie heute in einigen Dingen anders als früher?
- In welchen Dingen?
- Welche Gefühle haben Sie dabei?

### **3. Wenn Sie sich heute mit der Zeit in 10 oder 20 Jahren vergleichen, welche Veränderungen werden da wohl noch eintreten?**

Mit welchen wichtigeren Veränderungen rechnen Sie **persönlich** in den nächsten 10/20 Jahren bei den Menschen Ihrer Umwelt - Menschen aus Ihrer Familie, Ihrer Nachbarschaft, Ihrem Freundeskreis, den Organisationen, denen Sie angehören, Ihrer Wohngemeinde (der Schweiz, der "Gesellschaft"), Erwartungen und Normen?

Mit welchen wichtigeren Veränderungen rechnen Sie **persönlich** in den nächsten 10/20 Jahren in der dinglichen Umwelt - Ihrer Wohnung, Ihrer Wohngemeinde (der Schweiz, der Welt)?

Mit welchen wichtigeren Veränderungen rechnen Sie **persönlich** in den nächsten 10/20 Jahren an Ihrem Körper, an der Art und Weise, wie Sie Ihren Körper wahrnehmen und mit ihm umgehen?

Mit welchen wichtigeren Veränderungen rechnen Sie **persönlich** in den nächsten 10/20 Jahren an den Aufgaben, die Sie erfüllen werden - Aufgaben im Beruf, in der Familie, in der Freizeit, in Organisationen?

Mit welchen wichtigeren Veränderungen rechnen Sie **persönlich** in den nächsten 10/20 Jahren an Ihrer Person - Ihren Fähigkeiten, Ihren Eigenschaften, Ihren Zielen, Ihren Werten und Einstellungen?

Werden Sie in 10/20 Jahren voraussichtlich in einigen Dingen anders sein als früher? In welchen Dingen? Welche Gefühle haben Sie, wenn Sie an diese Zeit denken?

### **4. Kommt Ihnen jetzt, nachdem Sie über verschiedene Veränderungen in Ihrem Leben gesprochen haben, noch mehr in den Sinn zu der ersten Frage „Wer bin ich“?**

### **5. Sie haben sich oben in verschiedener Weise beschrieben. Fühlen Sie sich immer so oder nur in bestimmten Lagen? Wovon hängt es ab, ob Sie sich so fühlen?**

- Kommt es vor, dass Ihre verschiedenen Eigenschaften, die Sie gleichzeitig oder nacheinander inne haben, im Konflikt zueinander oder zu Ihrer Umgebung stehen?
- Wodurch werden diese Konflikte ausgelöst?
- Wie erleben Sie diese Konflikte?
- Wie wirken sie sich aus?

### **5. Wie wohl fühlen Sie sich als (eine Aussage über die eigene Person nennen)? (Skala)**

Sehr wohl \_\_\_\_\_ Sehr unwohl  
 1      2      3      4      5      6      7      8      9  
 Wann fühlen Sie sich wohler oder weniger wohl?

Und wie wohl fühlen Sie sich als (zweite Aussage über die eigene Person nennen)? (Skala)

Sehr wohl \_\_\_\_\_ Sehr unwohl  
 1 2 3 4 5 6 7 8 9  
 Wann fühlen Sie sich wohler oder weniger wohl?

Und wie wohl fühlen Sie sich als (evtl. dritte Aussage über die eigene Person nennen)? (Skala)

Sehr wohl \_\_\_\_\_ Sehr unwohl  
 1 2 3 4 5 6 7 8 9  
 Wann fühlen Sie sich wohler oder weniger wohl?

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#### 6. ÜBERPRÜFEN, OB DIE FRAGE ZUTRIFFT

**Sie haben ja in den letzten Jahren deutliche Veränderungen erlebt. Haben Sie dabei einen richtigen Bruch in der Art und Weise, wie Sie sich sehen, erlebt?**

- Wenn ja, wodurch wurde dieser Bruch ausgelöst?
- Welche Bedeutung hatte dieser Bruch für Ihr weiteres Leben?

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#### 7. Was ist Ihnen heute wichtig an Ihrer Person?

Und was war Ihnen früher, vor 10/20 Jahren, wichtig?

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#### 8. Fühlen Sie sich manchmal älter oder alt?

**WENN JA: Seit wann haben Sie den Eindruck, älter oder alt zu sein?**

**WENN NEIN: Was müsste eintreffen, damit Sie sich als alt oder älter fühlen würden?**

**Ab wann würden Sie sich als alt oder älter bezeichnen?**

- Von welchen Eigenschaften, die mit dem Alter zu tun haben, wird Ihr Bild von Ihnen bestimmt?
- Wie wirkt sich Ihr Lebensalter heute (oder auch Ihr Lebensalter in 10/20 Jahren) auf die Art und Weise aus, wie Sie sich sehen und was Sie denken?
- Wenn Sie junge Leute sehen, möchten Sie da auch noch einmal jung sein?
- Gibt es vielleicht Eigenschaften von jungen Leuten, die Sie gerne hätten?

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#### 9. Was ist Ihnen noch wichtig, wenn Sie an die Person denken, die Sie sind?

Herzlichen Dank für Ihre Hilfe!

lic. phil. Ursina Teuscher  
Departement für Psychologie  
UNIVERSITÄT FREIBURG

Rte de Faucigny 2  
CH - 1700 Freiburg  
Schweiz

Tel: 026 300 76 43  
Fax: 026 300 97 12  
e-Mail: [ursina@teuscher.ch](mailto:ursina@teuscher.ch)  
URL: [www.teuscher.ch/ursina](http://www.teuscher.ch/ursina)

Freiburg, 29. April 2002

## Fragebogen: Übergänge und Veränderungen beim Älterwerden

Sehr geehrte Dame, sehr geehrter Herr,

Der Übergang ins Rentenalter ist ein wichtiger Moment im Prozess des Älterwerdens und stellt eine gesellschaftlich definierte Grenze zum höheren Alter dar. Dies, obwohl viele pensionierte Menschen sich noch keineswegs alt fühlen und von ihrer Umwelt auch nicht als alt wahrgenommen werden. Gleichzeitig liefert der Beruf für viele Menschen eine wichtige Identität, die nach der Pensionierung nicht ohne weiteres durch eine Rentneridentität abgelöst wird.

Die Universität Freiburg führt nun eine Umfrage bei Menschen durch, die sich einige Jahre vor oder nach dem Übergang ins Rentenalter befinden. Sie erhalten den beiliegenden Fragebogen, weil Sie zu einer zufällig ausgewählten Stichprobe von 2000 EinwohnerInnen von Thun gehören, die an dieser Studie teilnehmen können. Damit unsere Studie gelingt, sind wir auf eine möglichst grosse Teilnehmerzahl angewiesen. Deshalb wären wir Ihnen sehr dankbar, wenn Sie sich kurz Zeit nehmen würden, um den Fragebogen auszufüllen.

Es hat sich gezeigt, dass es gut ist, wenn man dabei relativ rasch, ohne allzu lange nachzudenken, antwortet. Lassen Sie bitte keine Fragen aus. Dies ist kein Test, es gibt also keine richtigen oder falschen Antworten. Es geht einzig um die Erfassung von persönlichen Meinungen und Einschätzungen zur eigenen Person. Der Wert dieser Erhebung hängt davon ab, wie ehrlich Sie den



Fragebogen ausfüllen. Die Befragung geschieht anonym, Sie brauchen also Ihren Namen nicht anzugeben.

Wenn Sie uns Zusatzinformationen zukommen lassen wollen, so haben Sie am Ende des Fragebogens Raum für eigene Anmerkungen.

Die Resultate der Studie werden auf der Website <http://www.teuscher.ch/aging> zugänglich gemacht oder sind auf direkte Anfrage erhältlich.

Bitte senden Sie den ausgefüllten Fragebogen **bis am 8. Mai 2002** mit dem beiliegenden vorfrankierten Umschlag zurück. Falls Sie diesen Termin nicht einhalten können, sind wir Ihnen trotzdem dankbar, wenn Sie uns den Fragebogen so bald wie möglich nachschicken.

Mit herzlichem Dank für Ihre Mithilfe

U. Teuscher

1. In welchem Jahr sind Sie geboren? 19 ...

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2. Welches ist Ihr Geschlecht?  Männlich  Weiblich

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3. Welchen Familienstand haben Sie?

- Ledig  Verheiratet  Getrennt lebend  
 In Lebenspartnerschaft  Geschieden  Verwitwet
- 

4. Welche Schulbildung haben Sie? (Bitte *alles* ankreuzen, was auf Sie zutrifft)

- Primarschule  
 Sekundarschule  
 Berufsschule, Lehrabschluss  
 Mittelschule/Kantonsschule/Gymnasium  
 Fachhochschule/HTL/Lehrerseminar  
 Universität/ETH  
 Anderes: was? .....
- 

5. a) Welche berufliche Tätigkeit führen Sie momentan aus bzw. haben Sie zuletzt ausgeführt?

- Ich war *nicht* berufstätig  
 Ungelernte Tätigkeit  
 Angelernte Tätigkeit  
 Tätigkeit mit Lehrabschluss  
 Untere Kaderposition  
 Mittlere Kaderposition  
 Obere Kaderposition  
 Selbständig, eher kleiner Betrieb/kleine Praxis  
 Selbständig, eher grösserer Betrieb/grössere Praxis  
 Anderes: was? .....

b) Welchen Beruf haben oder hatten Sie? .....

c) Für Pensionierte: Wie lange haben Sie an Ihrem letzten Ort gearbeitet? ..... Jahre

---

6. Wie würden Sie Ihren allgemeinen Gesundheitszustand beschreiben?

- Sehr gut  Gut  Mittel  Schlecht  Sehr schlecht
- 

7. Wie oft waren Sie in den letzten 12 Monaten krank, so dass Sie wichtige Alltagstätigkeiten nicht mehr ausführen konnten?

- Nie  Einmal  Zwei- bis dreimal  Mehr als dreimal  Chronisch
- 

8. Wie häufig benutzen Sie den Computer?

- Gar nicht  Ein- bis dreimal monatlich  Mehrmals wöchentlich  
 Weniger als einmal monatlich  Etwa einmal wöchentlich
- 

9. Wie häufig benutzen Sie e-Mail oder Internet?

- Gar nicht  Ein- bis dreimal monatlich  Mehrmals wöchentlich  
 Weniger als einmal monatlich  Etwa einmal wöchentlich
- 

10. Haben Sie ein Mobiltelefon (Handy)?

- Ja  Nein
-

**11. Wie würden Sie sich beschreiben, wenn Sie jemand fragen würde, wer Sie sind? Schreiben Sie möglichst viele Antworten auf! (Wenn Sie diese Frage nicht beantworten möchten, gehen sie bitte einfach weiter zur nächsten Frage!)**

**12. Wenn Sie sich mit Menschen Ihres Alters vergleichen, fühlen Sie sich dann ganz allgemein etwa ebenso alt, eher jünger oder eher älter?**

- Viel älter     Eher älter     Etwa ebenso alt     Eher jünger     Viel jünger

**13. Ist dieses Gefühl meistens gleich oder schwankt es öfter?**

- Es ist meistens gleich     Es schwankt öfter

**14. Wenn Sie sich mit Menschen Ihres Alters vergleichen und an verschiedene Lebensbereiche denken, wie fühlen Sie sich dann, bezogen auf:**

	Viel älter	Eher älter	Etwa gleich alt	Eher jünger	Viel jünger
a) Ihre körperliche Fitness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Die Aktivitäten, die Sie ausführen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Ihre Beziehungen zu anderen Menschen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Ihre Interessen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Ihre geistigen Fähigkeiten?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Ihr Ansehen in der Gesellschaft?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Ihr Ansehen bei Familie und Freunden?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Ihre körperliche Attraktivität?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**15. Was haben Sie in den letzten Jahren neu gelernt?**

- Eine Fremdsprache     Ein Musikinstrument spielen  
 Gesellschaftsspiele     Mit dem Computer umgehen  
 Kochen, neue Rezepte     Anderes: was? .....

**16. Was tun Sie, um jung zu wirken oder sich jung zu fühlen?**

- Fitness/Bewegung/Sport     Haare tönen/färben     Bewusst flexibles Verhalten  
 Jugendliche Kleidung     Crèmes, Make up     Bewusste Ernährung/Diät  
 Gedächtnistraining     Schönheitsoperationen     Nichts Besonderes  
 Anderes: was? .....

**17. Wenn Sie sich selbst beschreiben sollten, welche der folgenden Punkte sind dann für Sie wichtig?**

	Sehr wichtig	Ziemlich wichtig	Mittel wichtig	Wenig wichtig	Gar nicht wichtig
Meine Nationalität	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Rollen in der Familie (Eltern/Grosselternschaft etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Partnerschaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mein Beruf/meine Erwerbstätigkeit (bei Pensionierten: mein ehemaliger Beruf)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ehrenamtliche Tätigkeiten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eigenschaften meines Körpers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eigenschaften meiner Persönlichkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mein Alter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Lebensgeschichte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Vereine und Organisationen, denen ich angehöre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mein Freundeskreis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Freizeitbeschäftigungen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bei Pensionierten: Die Tatsache, dass ich jetzt pensioniert bin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Werthaltungen oder mein Glaube	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anderes: was? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**18. Welche der folgenden Eigenschaften passen Ihrer Meinung nach zum Begriff „Alter“?**

	Passt genau	Passt eher	Weder noch	Passt weniger	Passt gar nicht
Interessiertheit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reizbarkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aktivität	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unzufriedenheit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Begeisterungsfähigkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ruhelosigkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Belastbarkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bedrücktheit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weisheit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ängstlichkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selbstbewusstsein	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Egoismus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gelassenheit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missgunst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geselligkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unselbständigkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anderes: was? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**19. Wie oft haben Sie zu den im Folgenden aufgeführten Personen Kontakt?**

	Taglich	Mehrmals wochentl.	Mehrmals monatlich	Seltener	Nie	Habe keine
Eltern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enkel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geschwister, nahe Verwandte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Freunde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Ehemalige) Berufskollegen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kollegen in Vereinen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nachbarn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andere: wer?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**20. Wie unterstutzend oder belastend empfinden Sie den Kontakt zu den im Folgenden aufgeführten Personen?**

	Sehr unterstutzend	Eher unterstutzend	Weder noch	Eher belastend	Sehr belastend	Habe keine
Eltern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enkel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geschwister, nahe Verwandte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Freunde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Ehemalige) Berufskollegen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kollegen in Vereinen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nachbarn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andere: wer?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**21. Falls Sie in einer Partnerschaft leben: Wie alt ist Ihr(e) Partner(in) im Vergleich zu Ihnen?**

- Mehr als 10 Jahre alter   
 Weniger als 4 Jahre Unterschied   
 Mehr als 10 Jahre junger  
 4 bis 10 Jahre alter   
 4 bis 10 Jahre junger

**22. Wie zufrieden sind sie mit den folgenden Lebensbereichen?**

	Sehr zu- frieden	Eher zu- frieden	Mittel	Eher un- zufrieden	Sehr un- zufrieden
Ihre korperliche Fitness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihre Aktivitaten, die Sie ausfuhren?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihre Beziehungen zu anderen Menschen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihre Interessen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihre geistigen Fahigkeiten?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihr Ansehen in der Gesellschaft?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihr Ansehen bei Familie und Freunden?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihre korperliche Attraktivitat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihre finanziellen Verhaltnisse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ihr Leben insgesamt?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**23. Jetzt folgt eine Reihe von Aspekten, die sich mit dem Alter ändern können. Womit sind Sie in den letzten Jahren zufriedener geworden, wo ist es eher gleich geblieben, und womit sind Sie eher unzufriedener geworden?**

	Damit bin ich zufriedener	Das ist gleich geblieben	Damit bin ich unzufriedener	Entfällt für mich
Mein Aussehen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meine finanzielle Situation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meine körperliche Fitness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meine geistigen Fähigkeiten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mein Interesse an Neuem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mein Verständnis für Vorgänge in der Welt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meine Fähigkeit, neue Kontakte zu schliessen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meine Beziehungen zu meinen Kindern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Beziehungen zu meinen Eltern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Beziehungen zu meinen Enkeln	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meine Beziehungen zu meinem/r Partner(in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mein Glaube, meine religiösen Einstellungen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meine Persönlichkeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Meine Freizeitgestaltung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mein Leben insgesamt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**24. Wie wichtig sind Ihnen die folgenden Inhalte des Lebens?**

	Sehr wichtig	Ziemlich wichtig	Mittel wichtig	Wenig wichtig	Gar nicht wichtig	Entfällt für mich
Ehe/Lebenspartnerschaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Familie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nachbarschaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Freundschaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mein Beruf (für Pensionierte: mein <i>ehemaliger</i> Beruf)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport, Bewegung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Organisationen, Partei, Kirche	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Kultur (Musik, Literatur, Kunst)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Natur (Tiere, Pflanzen, Landschaft)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wissenschaften	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Reisen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Beschäftigung mit mir selbst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Die Verwirklichung von inneren Werten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mein Glaube	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Anderes: was? .....						

**25. Sind Sie berufstätig?**

- Ja, vollzeitlich → gehen Sie bitte weiter zu Frage 28
- Ja, teilzeitlich 50 % oder mehr → gehen Sie bitte weiter zu Frage 28
- Ja, teilzeitlich, unter 50 % → gehen Sie bitte weiter zu Frage 28
- Nein, ich bin pensioniert. → Seit wann? ..... (Jahr)
- Nein, ich bin nicht erwerbstätig und noch *nicht* im Rentenalter → gehen Sie bitte weiter zu Frage 28

**26. Welche von diesen Interessen sind Ihnen wichtiger geworden, seit Sie nicht mehr berufstätig sind?**

	Wurde viel wichtiger	Wurde etwas wichtiger	Blieb gleich wichtig	Etwas weniger wichtig	Viel weniger wichtig	Entfällt für mich
Ehe/Lebenspartnerschaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Familie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nachbarschaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Freundschaft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sport, Bewegung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Organisationen, Partei, Kirche	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Kultur (Musik, Literatur, Kunst)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Natur (Tiere, Pflanzen, Landschaft)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wissenschaften	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Reisen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Beschäftigung mit mir selbst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Die Verwirklichung von inneren Werten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mein Glaube	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Anderes: was? .....						

**27. Welchen dieser Aussagen können Sie zustimmen, wenn Sie Ihr Leben im Ruhestand vergleichen mit Ihrem Leben als Berufstätige/r?**

	Stimme sehr zu	Stimme eher zu	Teils teils	Stimme eher nicht zu	Stimme gar nicht zu
Ich genieße es, dass ich nicht mehr täglich pünktlich zur Arbeit erscheinen muss.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich vermisse oft die Herausforderung des Berufslebens.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich freue mich, dass ich nicht mehr zur Arbeit muss.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich genieße es, dem Leistungsdruck bei der Arbeit nicht mehr ausgesetzt zu sein.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich vermisse es, mit anderen Leuten bei der Arbeit zusammen zu sein.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich vermisse die Freiheiten, die ich durch meine Arbeit ausser Haus hatte.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mir fehlt die Sinnhaftigkeit des Lebens, wie sie durch den Beruf gegeben war.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich vermisse das Gefühl, eine respektierte Arbeitskraft zu sein.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mir fehlt die Regelmässigkeit in meinem Tagesablauf, wie sie durch den Beruf gegeben war.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich bin froh, dass ich mich nicht mehr mit meinen Arbeitskollegen auseinandersetzen muss.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich genieße es, meine Zeit freier planen zu können.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**28. Bitte lesen Sie die folgenden Aussagen durch und kreuzen Sie an, wie sehr diese auf Sie zutreffen.**

	Stimmt völlig	Stimmt teil- weise	Weder noch	Stimmt eher nicht	Stimmt gar nicht
Die Lösung schwieriger Probleme gelingt mir immer, wenn ich mich darum bemühe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich erwarte fast nie, dass die Dinge in meinem Sinne verlaufen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Es bereitet mir keine Schwierigkeiten, meine Absichten und Ziele zu verwirklichen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich blicke stets optimistisch in die Zukunft.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manchmal fühle ich mich zu nichts nütze.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In unerwarteten Situationen weiss ich immer, wie ich mich verhalten soll.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In unsicheren Zeiten erwarte ich gewöhnlich das Beste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auch bei überraschenden Ereignissen glaube ich, dass ich gut damit zurechtkommen werde.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wenn etwas schlecht für mich ausgehen kann, so geschieht das auch.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eigentlich bin ich mit mir ganz zufrieden.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich sehe stets die guten Seiten der Dinge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich glaube an die Idee, dass auf schlechte Tage auch wieder gute Tage folgen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schwierigkeiten sehe ich immer gelassen entgegen, weil ich mit Problemen gut umgehen kann.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Dinge entwickeln sich nie so, wie ich es mir wünsche.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ich beachte selten das Gute, das mir geschieht.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was auch immer passiert, ich werde schon zurechtkommen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**29. Wie alt fühlen Sie sich?** ..... Jahre

**30. Wie alt schätzen andere Menschen Sie ein?** ..... Jahre

**31. Wie alt wären Sie am liebsten?** ..... Jahre

**32. Wie beurteilen Sie das Leben, wenn man ca. 75 Jahre alt ist?**

Sehr positiv       Eher positiv       Mittel       Eher negativ       Sehr negativ

**33. Wie beurteilen Sie das Leben, wenn man älter als 80 Jahre alt ist?**

Sehr positiv       Eher positiv       Mittel       Eher negativ       Sehr negativ

**34. Möchten Sie gerne 100 Jahre alt werden, sofern Sie dabei gesund bleiben könnten?**

Ja, sehr gern       Ja, gern       Weiss nicht       Nein, ungern       Nein, sehr ungern



**35. In vielen Dingen ändert man sich ja auch im Erwachsenenalter. Welche der Veränderungen treffen auf Sie für die letzten 10 Jahre zu?**

	Keine Veränderung		
Ich bin unruhiger geworden <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin ruhiger geworden
Ich genieße das Leben mehr als früher <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich genieße das Leben weniger als früher
Ich bin mutiger geworden <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin weniger mutig
Ich bin ausgeglichener <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin weniger ausgeglichen
Ich bin vergesslicher <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin weniger vergesslich
Das Urteil von anderen ist mir wichtiger geworden <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Das Urteil von anderen ist mir weniger wichtig
Ich achte mehr auf meinen Körper <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich achte weniger auf meinen Körper
Ich bin passiver geworden <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin aktiver geworden
Ich bin selbstsicherer <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin weniger selbstsicher
Ich bin toleranter geworden <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin weniger tolerant
Ich bin mehr nach innen gerichtet <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin mehr nach aussen gerichtet
Ich tue mehr, was <i>ich</i> möchte <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich tue mehr, was die <i>anderen</i> möchten
Ich bin offener geworden <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Ich bin weniger offen

**36. Wann haben Sie diesen Fragebogen beantwortet?** (Falls Sie ihn zu verschiedenen Zeiten beantwortet haben: Wann haben Sie ihn hauptsächlich ausgefüllt?)

Datum:.....

Ungefähre Uhrzeit:.....

**Bemerkungen:**

**Nochmals ganz herzlichen Dank für Ihre Mithilfe!**

Bitte schicken Sie den ausgefüllten Fragebogen möglichst umgehend mit dem beiliegenden vorfrankierten Couvert zurück!

Für Interessierte: Die Resultate der Studie werden auf der Website <http://www.teuscher.ch/aging> zugänglich gemacht.

# Appendix B

## Excerpts of the Qualitative Interviews

### B.1 Aussagen zum Stellenwert des Berufs nach der Pensionierung

- *Psychiater*: “Während meines ganzen Erwerbslebens war ich Psychiater, und mein ganzes Erwerbsleben war auf Psychiatrie ausgerichtet. Ich habe bereits die Matur mit diesem Ziel gemacht.” *Ob er sich nach der Berufsaufgabe noch als Psychiater fühlen werde*: (lacht) “Ich glaube es schon. Ich merke das daran, ich habe eine relativ grosse Bibliothek, die Fachbücher habe ich in der Praxis und die Belletristik daheim, und ich kann mir nicht vorstellen, mich von den Fachbüchern zu trennen. Ich werde sicher auch weiterhin manchmal was lesen.”

“Wie der relative Stellenwert sein wird der Psychiatrie nach der Pensionierung, das weiss ich nicht.” *Ersatz nach der Pensionierung?* “Nein, sonst würde es mir leichter fallen.”

- *Heimleiterin*: “Ich identifizierte mich schon stark mit dem Beruf. Er war ein Stück von mir selbst, auch ein Stück Heimat. Ich war aber auf die Umstellung vorbereitet, kann jetzt auch aufholen, was vorher nicht möglich war.”
- *Musiklehrerin*: “Ich vermisse das nicht mehr, was mir früher so wichtig war, das mir als das Grösste erschien, dieses Musizieren. Das ist einfach abgeschlossen”.

“Ab und zu kommen wieder ein paar ehemalige SchülerInnen (Erwachsene), um zu spielen/Tee zu trinken. Das möchte ich aber nicht regelmässig, das ist jetzt einfach vorbei.”

- *Pensionierung des Ehemannes*: “Das wird auch eine Veränderung der Lebensform geben. Das Thema wird von uns etwas vermieden, es ist fast ein wenig ein ‘Unthema’. Die Krankheit hat auch einen Einfluss, wir hoffen, diese Pensionierung—es komme überhaupt dazu.”
- *Sekretärin: (wie wichtig ist ihr ehemaliger Beruf noch für Sie?)* “Jetzt? Gar nicht mehr, das ist—das ist fort.” (*Und wie wichtig war er vor der Pensionierung?*) “Ja, das war eher ein Auslaufen. Ich hatte meinen Beruf sehr gern, habe sehr gern gearbeitet, aber in diesem Alter habe ich schon gespürt, da sind Jüngere, und ich hatte auch nicht mehr diese Power. Und dann ging das ganz natürlich ins Auslaufen. Aber ich habe trotzdem immer noch gern gearbeitet, aber es war nicht mehr so wichtig, nein”.
- *Hauswirtschaftslehrerin*: “Ich fühle mich eigentlich noch gar nicht so richtig pensioniert, weil mein Mann noch arbeitet. Ich denke, wenn er pensioniert ist, wird es eine grössere Umstellung geben, dann können wir auch unsere gemeinsame Zeit freier einteilen, länger wegsein und so. Sein Beruf war und ist mir immer auch wichtig, also zu wissen und zu verstehen, was er macht und was ihn beschäftigt.”
- *Sekundarlehrer*: “Der Beruf war schön und wichtig für mich. Die letzte Klasse war angenehm. Das war wichtig für mich, in einem Moment aus dem Beruf auszusteigen, als mir das Lehrersein optimal gefallen hat” [freiwillige frühzeitige Pensionierung].

## B.2 Veränderungen, die an der eigenen Person wahrgenommen werden

### Körper:

- “Körperpflege ist intensiver geworden. Andere Sachen nehme ich mir vor, mache es dann aber nicht, z. B. jeden Tag 1-2 Stunden an die frische Luft. Das täte mir gut. Der Körper würde mehr Bewegung brauchen als früher.”
- “(bezogen auf den Körper:) Ich werde schon weniger schnell.”
- “... angeschlagene Gesundheit, in verschiedener Hinsicht ...” [Herzrhythmusstörungen, für die immer Medikamente genommen werden müssen, Dickdarmkrebs]  
“Ja, es gab eine klare Veränderung der Identität, früher habe ich mich immer gesund gefühlt. Dieses Selbstverständnis hat sich verändert. ... ist schon so ein Damoklesschwert.”

- “Ja, körperlichen Veränderungen gab es schon auch ... ich bin langsamer geworden. Das merke ich vor allem auf Bergtouren. Auch weniger attraktiv. Das ist zeitweise schon schwierig zu akzeptieren.”

“Auf der anderen Seite ist das Intaktsein der Körpers auch nicht mehr so wichtig wie für jüngere Leute, die alles noch erleben müssen. Ich habe das ja gehabt! Ich habe das alles gehabt.”

“Ungefähr mit 50 hatte ich eine grössere Krise ... Abgeben einer gewissen Männlichkeit ... Ich habe mich dagegen aufgebäumt, wollte nicht wahrhaben, dass ich meine Attraktivität einbüßen könnte. Dies hat sich dann in verschiedenen Freundschaften mit sehr viel jüngeren Frauen geässert. Bis ich dann realisiert habe, dass das nichts war, und mir gesagt habe, hey, jetzt musst du in Würde altwerden!”

- “Ja, der Blick in den Spiegel zeigt einem natürlich schon: man altert!”
- “Mein Körper zeigt deutliche äusserliche Merkmale, zum Beispiel dass sich die Haut verändert. Wenn ich Beschwerden wahrnehme, mache ich schneller etwas dagegen als früher und ich versuche, der Ursache auf den Grund zu kommen.”
- “Ich schaue fast mehr zu diesem Körper als früher.” [Regelmässig Gymnastik, Hometrainer (morgens und Abends 5 km), Wanderungen gemeinsam mit dem Mann, neu auch Rudern auf dem Thunersee]. “Jetzt habe ich auch mehr Zeit, darum schaue ich mehr zu diesem ‘Gestell’.”

### **Stärkere Innen-Gerichtetheit, Wichtigkeit der eigenen Person:**

- “Habe besser gelernt, im Moment zu leben.”
- “Habe das Gefühl, ich komme immer etwas mehr zu mir selber—werde der, der du bist...—das stimmt immer mehr. Ich werde immer authentischer.”
- “Ich habe ... mich persönlich besser kennengelernt.”
- “Meine Interessen sind mehr nach innen gerichtet.”
- “Ich habe in den letzten 20 Jahren viele Rollen abgegeben, ganz bewusst. Da hat schon ganz bewusst ein Rückzug stattgefunden. Es ist mir wichtig zu merken, dass ich abgeben kann, dass ich ohne all das auch auskomme. Ich habe so dieses Bild von meiner Katze, die sich auf dem Balkon in der Sonne räkelt. So möchte ich werden, mit nichts als ein bisschen Sonne zufrieden sein.”

“... Es haben von daher nicht nur die Anzahl, sondern auch die Intensität, die Verbindlichkeit, und das zeitliche Engagement der Rollen abgenommen. Die jetzt noch vorhandenen Rollen könnten jederzeit aufgegeben werden.

Das hat angefangen mit dem Auszug der Kinder. Die Vaterrolle ist ja die verbindlichste, intensivste, Rund-um-die-Uhr-Rolle. Und dann der Beruf. Und jetzt mache ich nur noch kleinere, kürzere Aufgaben (wie zum Beispiel die Stadtführung heute). ... Gehen lassen, gehen lassen—das ist etwas was ich lernen muss.”

- “Freue mich, dass ich etwas um meiner selbst Willen tun kann. Das lehnte ich früher total ab.”
- “Ich weiss besser, was ich will und was ich nicht will”
- “Heute mach ich nichts mehr was ich sollte, nur noch was ich will.”
- “Es gelingt mir besser, bei mir zu bleiben.”
- “Ich kann mich besser abgrenzen. Ich nehme weiterhin Anteil, weiss aber, dass gewisse Sachen ihre [anderer Leute] Probleme sind.”
- “Habe bis 40 viel mehr Rollen gespielt, als ich mich selber war. Eigentlich fast ausschliesslich.”
- “Ich nehme mich heute selber zunehmend wichtiger. Früher war mir mehr der Erfolg wichtig, im Beruf, bei andern Leuten, bei den Frauen. Angesehen sein, geschätzt sein und so weiter. Respektiert sein.”
- “Es hat sich verändert, dass ich überhaupt Ziele habe, und diese Ziele sind mehr nach innen gerichtet als nach aussen: dass ich zum Beispiel meine Zufriedenheit vertiefen kann, im Beruf, im Alltag.”

**Persönlichkeit:**

- “... (ich bin) geduldiger und gelassener geworden.”
- “Ich bin ruhiger, überlegter, gelassener geworden, auch barmerziger”  
“... Ich habe aber auch gemerkt, dass Ausgeglichenheit nicht sehr erstrebenswert ist, denn so tief wie seelische Tiefs erlebt werden können, so hoch können auch die seelischen Hochs erlebt werden.”
- “Ich wage bedeutend mehr, mich Herausforderungen zu stellen.”
- “Das ist ganz klar, dass ich ruhiger geworden bin und auch nicht mehr so mag. Viel, auch die Aktivität, ist zurückgegangen. Dass ich älter geworden bin, dass ich das spüre, aber positiv, finde ich eher eine positive Veränderung. Obwohl man das eben körperlich auch spürt. Das sind ganz klar gemischte Gefühle. Da ist etwas loslassen, das ist nicht einfach aber man kriegt etwas ... Ruhe würde ich sagen. Einfach eine gewisse—Zufriedenheit.”

- “Ich habe weniger das Gefühl, etwas ‘erzwingen’ zu müssen. Ich lasse mich weniger ins Bockshorn jagen.”
- “Mein Selbstvertrauen ist gestiegen, bin sicherer geworden. Ich habe auch weniger Schuldgefühle, für weiss nicht was alles, das überflüssig ist.”  
“Ich wurde toleranter gegenüber menschlichen Schwächen.”  
“Ich kann das Leben zunehmend geniessen, mehr Lebensfreude leben.”

#### **Einstellungen:**

- “Man weiss besser wie’s geht auf der Welt, ist weniger frustriert von gewissen Tatsachen. Man weiss, dass man relativ wenig machen kann, um sie zu verändern.”  
“Früher hatte ich mehr den Eindruck, man sollte etwas bewirken in der Welt. Heute möchte ich zufrieden werden mit dem, was ist.”  
“Ich bin in gewissen Dingen nachlässig geworden ... Gefühl, mein Leben nimmt langsam ein Ende, jetzt sollen die andern schauen, oder?” (*bezogen auf die Ökologie, mit der* “ich es nicht mehr so genau nehme wie früher”).
- “...gehe weniger der Frage nach, warum etwas so ist, frage mich eher: was kann ich aus dieser Situation lernen?”
- “Früher war das eher für mich so schwarz-weiss, jetzt hat es viele Schattierungen. Was ist wert, was ist für den einen das, für den anderen das.”
- “Es gelingt mir besser zu akzeptieren, was mir gelingt und was nicht.”
- “Ziele? Heute lasse ich mich eher überraschen von dem was auf mich zukommt. Ich bin immer wieder erstaunt, was mir alles zufällt.”  
“Ziel ist für mich offen sein für das, was kommt”  
“... freue mich auch, wer alles auf mich zukommt. Früher fühlte ich mich als Aussenseiter.”
- “Mir ist bewusst geworden, dass alles Veränderungen unterworfen ist, und dass ich mich wieder daran erinnere.”

#### **Anderes:**

- “Die Veränderungen erlebte ich alle als eine kontinuierliche Entwicklung, nicht als Bruch ausgelöst durch Alter oder Pensionierung.”
- “Früher habe ich immer auf ein spezielles Ziel hin gearbeitet, zum Beispiel eine Aufführung oder so [Musik], auf etwas hingelebt. Wenn dies nicht mehr besteht, ist man plötzlich mit sich allein. Das ist eine unglaubliche Bereicherung—dieses Innehalten.”

## B.3 Definitionen von Alter, Altersidentität

Antworten auf die Frage: **Fühlen Sie sich manchmal älter oder alt?**

- “Überhaupt nicht. Meine Leistungsfähigkeit ist noch gross, im Vergleich mit [Lehrer-] Kollegen, die zum Teil völlig ausgebrannt sind”
- “Nein, ich weiss auch, dass ich jünger wirke als ich bin.”  
 “Ich bin nicht sehr tolerant alten Leuten gegenüber, ich nerve mich zum Beispiel häufig, wenn sie so langsam sind, wenn sie mir im Weg sind, zum Beispiel beim Einkaufen oder im öffentlichen Verkehr.”  
 “Das Jung-erhalten soll aber nicht künstlich sein.”
- “Ich war jetzt 67, aber ich habe nicht das Gefühl ich werde alt und älter. Wie ich dann bin und wie es geht, weiss ich nicht. Aber im Moment habe ich das Gefühl ich lebe und es geht mir gut.”
- “Also, alt fühle ich mich nicht. Als älter—das—spüre ich nur, an meinem Umfeld, dass ich älter werde. Wenn ich in die Badi gehe, schwimme, dann am Abonnement, ‘Sind Sie AHV?’. Dort stört es mich, aber ich finde mich jetzt sehr oft als ältere Frau, und das—muss mich irgendwie dazu aufrufen—ich bin das. Ich bin es, und ich weiss ich bin es, aber ich fühle mich nicht so.”
- “Nein, ich fühle mich eigentlich nie älter oder sogar alt.”  
 “Ich staune einfach, dass ich bereits über 60 sein soll!”  
 “Einmal lud zum Beispiel unsere Gemeinde hier die 60-70-jährigen ein, um ihre Anliegen zu hören. Ich fühlte mich irgendwie gar nicht angesprochen.”
- “Älter auf jeden Fall.”
- “Da habe ich nicht so Mühe: Mit 66 ist man alt, 66 Jahre hat man gelebt, und so manches gibt es ja nicht mehr, und das ist einfach eine Tatsache. Deshalb färbe ich auch nicht die Haare oder so. Manchmal ist es auch nicht so einfach, z. B. beim Kleiderkaufen. Solange man aber den Humor nicht verliert, hat das Alter auch sein Schönes ... Die Erinnerungen sind zum Beispiel etwas Schönes, dem Enkel Geschichten erzählen oder so.”

**Wenn JA: Seit wann haben Sie den Eindruck, älter oder alt zu sein?**

**Wenn NEIN: Was müsste eintreffen, damit sie sich alt oder älter fühlen würden?**

**Ab wann würden Sie sich als alt oder älter bezeichnen?**

- “In den letzten Monaten, seit der Pensionierung, denke ich öfters: Jetzt hast du dich selbst zum alten Eisen getan, mit der Frühpensionierung. Ist aber nicht ein Grundgefühl. Oder wenn ich nicht so mag.”

- “Dann denke ich: Also gut, dann bist du halt mal nicht so fit, so vital. Vielleicht kommt es dann wieder. Ich habe nicht das Gefühl, dass es nur noch bergab geht. Ich hatte diese Stimmung. Ich kenne dieses Gefühl, ich kenne es gut. Aber es ist nicht meine Grundstimmung. Ich habe aber auch nicht mehr das Gefühl, es könne nur noch besser werden—dieses Gefühl hatte ich früher schon.”
- “In der letzten Zeit sehr oft:
  - wenn die Beine schwer sind,
  - die Runzeln auf der Haut,
  - wenn ich keine Weiterbildung mehr mache,
  - wenn ich Grossmutter bin.”
- “Seit ich mir bei einem Spaziergang das Knie verletzt habe. Da habe ich gemerkt: Du bist nicht mehr wie jung!”
- “Vor einem Jahr, nach dem Schulterunfall fühlte ich mich uralt. Das war vorbei, als die Schulter wieder geheilt war. Damals war Alter negativ besetzt: so saft- und kraftlos—erledigt, erschöpft, mag nicht mehr.”
 

“Wenn ich mich körperlich nicht gut fühle, kann es eher vorkommen, dass ich mich manchmal älter fühle, doch so massiv wie beim Schulterunfall—da war es ganz massiv.”
- “Mein Alter wird von meinem inneren Befinden heraus bestimmt.”
- “Defizite haben, gesundheitliche, Leistungs-/ Antriebsdefizite, fachlich nicht mehr auf dem neusten Stand sein ...”
 

“Aber auch: Erfahrung im Umgang mit Patienten, dort ist das Alter ein Vorteil. Das wird zum Teil auch explizit verlangt von Patienten, dass sie jemanden suchen, der schon älter ist.”
- “Das Alter wirkt sich eher durch das Selbstgewählte aus, das freiwillige Abgeben von Rollen zum Beispiel. Das Bewusstsein, dass ich noch soundso-viele Jahre habe, wirkt sich mehr aus, als dass ich irgendetwas spürte.”
- “Ab 80 sind Leute für mich alt, dort würde ich die Grenze setzen.”
- “Alte Leute sind für mich immer noch älter als ich.”
- “Man muss viele Sachen nicht mehr, man darf sie, wenn man noch will ... Zur Ruhe kommen, Innehalten ... Man nimmt vieles nicht mehr so tragisch, wie man das früher getan hat.”



### Alter als Einflussfaktor

- “Ich muss langsamer, achtsamer, sorgfältiger werden”
- “Man leistet sich mehr Bequemlichkeiten, eine gewisse Behäbigkeit macht sich breit ... habe das Gefühl, das verdient zu haben.”
- “alt sein heisst auch: langsamer, umständlicher, auf andere angewiesen sein, werde nicht mehr grosse Reisen machen, der Lebenskreis wird kleiner.” *Auf Gefühle angesprochen:* “Hatte noch keine schlaflosen Nächte deswegen. Aber ich denke auch nicht gern daran.”
- “...grosse Befriedigung, dass trotz Alter noch Steigerung möglich ist.”
- “Das Alter merke ich manchmal schon, an verschiedenen Dingen:
  - dass ich keine konkrete Aufgabe habe wie früher im Beruf,
  - ... ich bin auch empfindlicher geworden gegenüber Lärm oder vielen Leuten,
  - ... Herzrhythmusstörungen, Gliederschmerzen ... man ist halt schon nicht mehr jung.
  - ... kann auch nicht mehr so schnell die 150 Tritte zu meinem Haus hochsteigen wie jüngere Nachbarn,
  - ... werde beim Velofahren viel überholt.
  - Man hat nicht mehr eine so grosse Libido. Alles Körperliche ist weniger lustvoll.
  - Es braucht mehr Zeit um eine Sprache zu erlernen. ... Die geistige Beweglichkeit nimmt einfach ab im Alter.”
- “Neue Techniken machen mir nicht besonders Freude.” [Als Indiz für das Ältersein]

## B.4 Ueberlegungen zum Jungsein

Junge Leute:

- “Beneide ich gar nicht.”
- *Wieder Jungsein wollen:*

“...gibt es schon, aber das andere ist häufiger, dass ich froh bin, so alt zu sein.”

... Am ehesten bei der körperlichen Leistungsfähigkeit, zum Beispiel beim Bergsteigen, oder bei den Beziehungen zum anderen Geschlecht. ... Es sind wenige Momente, in denen das aufflammt.”

- “In der heutigen Zeit möchte ich nicht mehr jung sein [z.B. ganz andere Studienbedingungen] Aber ich bin nicht froh, dass ich so alt bin, nein, so könnte ich das auch nicht sagen. Das Altsein würde ich auf dieser Skala doch negativer beurteilen. Es geht einfach unaufhaltsam dem Ende zu, und das finde ich dann wieder nicht so lustig. Das ist schon widersprüchlich.”
- “Ich möchte es [Jungsein] trotz allem nicht, habe manchmal Angst, was sie [die jungen Leute] erwartet.”
- “Ich bin ja jung gewesen, ich möchte das jetzt nicht mehr. Es ist so normal eigentlich. Das Leben hat zu jederzeit seine schöne Zeit.”  
 “Um was ich sie beneide, ist ihre Vitalität ... eine gewisse Unbekümmertheit und die geistige Beweglichkeit. Mag ihnen den freieren Umgang zwischen den Geschlechtern gönnen, da hat sich ja schon viel verändert.”
- “Ich möchte nochmals mit 30 anfangen. Ich wäre gerne Tierärztin geworden.”  
 “Junge Leute sind freier, gewagter.”
- “Ich möchte nicht mehr jung sein, nein, aber ich würde gern noch lange so bleiben, wie ich jetzt bin.”
- “Nein, jung möchte ich nicht mehr sein. Ich möchte auch keine von ihren Eigenschaften.”  
 “Der Kontakt zu jungen Leuten ist mir wichtig, ich bin gerne in Kontakt mit ihnen, finde es schön, wenn sie sich freuen, dass ich auch tanzen komme.”  
 “Ich glaube, ich habe als älterer Mensch die Chance, die äussere Beweglichkeit, die man bei Kindern so gut sieht, als innere Beweglichkeit und Lebendigkeit zu spüren”
- “Wenn ich mit ganz jungen Leuten zusammen bin, dann fühle ich mich einfach an einem andern Ort—nicht alt im negativen Sinn, so fühle ich mich nicht. Schon älter, aber nicht negativ besetzt. Erfahrener, länger auf dieser Welt, mehr gesehen, so.”  
 “Ich möchte nicht wieder jung sein. Kommt mir im Moment keine Eigenschaft in den Sinn, die ich möchte.”

# Appendix C

## Statistics

### C.1 Scale and Item Analyses

#### C.1.1 Reliability Analysis for the Measurement of Subjective Age

RELIABILITY ANALYSIS - SCALE (ALPHA)				
		Mean	Std Dev	Cases
1.	SA_GEN	3.7253	.5866	708.0
2.	SA_FIT	3.5120	.7979	708.0
3.	SA_ACT	3.6476	.7459	708.0
4.	SA_REL	3.5607	.6727	708.0
5.	SA_INT	3.6596	.6847	708.0
6.	SA_COGN	3.5304	.6750	708.0
7.	SA_SOC	3.4555	.6414	708.0
8.	SA_FAM	3.6292	.6567	708.0
9.	SA_ATTR	3.4866	.7881	708.0
Statistics for	Mean	Variance	Std Dev	N of
SCALE	32.2069	18.4384	4.2940	Variables 9

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
SA_GEN	28.4816	15.2055	.6314	.8397
SA_FIT	28.6949	14.3672	.5678	.8453
SA_ACT	28.5593	14.3720	.6207	.8390
SA_REL	28.6462	15.1543	.5407	.8468
SA_INT	28.5473	15.1000	.5393	.8470
SA_COGN	28.6766	15.0303	.5641	.8446
SA_SOC	28.7514	15.0605	.5959	.8419
SA_FAM	28.5777	15.0123	.5885	.8424
SA_ATTR	28.7203	14.1445	.6196	.8393

## Reliability Coefficients

N of Cases = 708.0

N of Items = 9

Alpha = .8579

### C.1.2 Reliability Analysis for the Measurement of Health State

## RELIABILITY ANALYSIS - SCALE (ALPHA)

	Mean	Std Dev	Cases
1. HEALTHST	2.0446	.7584	785.0
2. SICKLEAV	1.5968	1.0250	785.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	3.6414	2.5214	1.5879	2

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
HEALTHST	1.5968	1.0506	.5761	.
SICKLEAV	2.0446	.5752	.5761	.

## Reliability Coefficients

N of Cases = 785.0

N of Items = 2

Alpha = .7105

### C.1.3 Reliability Analysis for the Measurement of Satisfaction

## RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	SAT_FITN	2.1324	.9409	729.0
2.	SAT_ACT	1.8669	.8569	729.0
3.	SAT_REL	1.7977	.7388	729.0
4.	SAT_INT	1.7277	.7274	729.0
5.	SAT_COGN	1.8663	.7570	729.0
6.	SAT_SOC	2.0370	.7668	729.0
7.	SAT_FAM	1.6543	.7080	729.0
8.	SAT_ATTR	2.2524	.8641	729.0
9.	SAT_FIN	2.1379	.9639	729.0
10.	SAT_LIFE	1.6831	.6986	729.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	19.1557	29.7844	5.4575	10

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
SAT_FITN	17.0233	23.6705	.5711	.8572
SAT_ACT	17.2888	23.3798	.6842	.8466
SAT_REL	17.3580	24.7920	.6044	.8539
SAT_INT	17.4280	24.7623	.6206	.8528
SAT_COGN	17.2894	24.9347	.5657	.8567
SAT_SOC	17.1187	24.5762	.6078	.8534
SAT_FAM	17.5014	24.9169	.6178	.8532
SAT_ATTR	16.9033	24.0356	.5904	.8547
SAT_FIN	17.0178	24.9145	.4095	.8725
SAT_LIFE	17.4726	24.8138	.6440	.8515

## Reliability Coefficients

N of Cases = 729.0

N of Items = 10

Alpha = .8679

### C.1.4 Reliability Analysis for the Measurement of Optimism

#### RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	OPT2	1.9056	.9629	752.0
2.	OPT5	1.7846	.8213	752.0
3.	OPT6	1.4149	.6574	752.0
4.	OPT7	2.6044	1.1298	752.0
5.	OPT8	2.1097	1.2037	752.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	9.8191	9.8301	3.1353	5

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
OPT2	7.9136	6.6889	.4445	.5695
OPT5	8.0346	7.0621	.4796	.5621
OPT6	8.4043	7.7165	.4604	.5857
OPT7	7.2148	6.6779	.3213	.6379
OPT8	7.7094	6.1042	.3828	.6103

## Reliability Coefficients

N of Cases = 752.0

N of Items = 5

Alpha = .6448

### C.1.5 Reliability Analysis for the Measurement of Self-Efficacy

## R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

		Mean	Std Dev	Cases
1.	SEEF1	1.7593	.6888	756.0
2.	SEEF3	2.2639	.8993	756.0
3.	SEEF4	1.9709	.8214	756.0
4.	SEEF5	2.1759	.9290	756.0
5.	SEEF6	1.7824	.7927	756.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	9.9524	9.4620	3.0760	5

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
SEEF1	8.1931	7.0481	.5303	.7706
SEEF3	7.6885	6.2197	.5425	.7673
SEEF4	7.9815	6.1142	.6581	.7283
SEEF5	7.7765	5.7970	.6263	.7385
SEEF6	8.1700	6.6562	.5323	.7683

## Reliability Coefficients

N of Cases = 756.0

N of Items = 5

Alpha = .7943

### C.1.6 Reliability Analysis for the Measurement of Job Deprivation

## RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	JOBDEP01	1.5036	.8927	411.0
2.	JOBDEP02	2.5596	1.1804	411.0
3.	JOBDEP03	1.9331	1.0825	411.0
4.	JOBDEP04	1.7007	.9755	411.0
5.	JOBDEP05	2.7664	1.1683	411.0
6.	JOBDEP06	2.0973	1.0911	411.0
7.	JOBDEP07	1.9294	1.0649	411.0
8.	JOBDEP08	2.0608	1.1744	411.0
9.	JOBDEP09	1.8783	1.0864	411.0
10.	JOBDEP11	1.3990	.6959	411.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	19.8285	47.7760	6.9120	10



## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
JOBDEP01	18.3248	41.9729	.4328	.8503
JOBDEP02	17.2689	38.1355	.5657	.8402
JOBDEP03	17.8954	39.7622	.5012	.8456
JOBDEP04	18.1277	41.8867	.3910	.8539
JOBDEP05	17.0620	37.7163	.6059	.8362
JOBDEP06	17.7311	38.3550	.6090	.8359
JOBDEP07	17.8990	38.0148	.6570	.8316
JOBDEP08	17.7676	36.9782	.6594	.8309
JOBDEP09	17.9501	37.5640	.6782	.8295
JOBDEP11	18.4294	42.8694	.4853	.8478

## Reliability Coefficients

N of Cases = 411.0

N of Items = 10

Alpha = .8542

### C.1.7 Reliability Analysis for the Measurement of Attitude Towards Old Age (Associative Questions)

#### RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	INTER18	2.0607	.9880	643.0
2.	REIZB18	2.9510	1.0647	643.0
3.	AKTIV18	2.3072	1.0372	643.0
4.	UNZU18	2.6882	1.1505	643.0
5.	BEGEI18	2.4425	1.0854	643.0
6.	BEDRU18	2.8748	1.0853	643.0
7.	AENGS18	3.0319	1.1771	643.0
8.	SELBS18	2.2846	.9430	643.0
9.	EGOIS18	2.8095	1.1836	643.0
10.	MISSG18	2.3258	1.1594	643.0
11.	UNSEL18	2.6019	1.2216	643.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	28.3779	64.3118	8.0195	11

#### Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
INTER18	26.3173	55.3088	.5462	.8620
REIZB18	25.4269	55.1177	.5099	.8643
AKTIV18	26.0708	55.4152	.5065	.8645
UNZU18	25.6897	51.5808	.6903	.8515
BEGEI18	25.9355	54.3334	.5500	.8616
BEDRU18	25.5031	53.3333	.6183	.8570
AENGS18	25.3460	52.9194	.5843	.8593
SELBS18	26.0933	56.8760	.4603	.8672
EGOIS18	25.5684	53.5685	.5392	.8627
MISSG18	26.0521	52.1433	.6464	.8547
UNSEL18	25.7760	51.5868	.6401	.8551

## Reliability Coefficients

N of Cases = 643.0

N of Items = 11

Alpha = .8712

### C.1.8 Reliability Analysis for the Measurement of Attitude Towards Old Age (Direct Questions)

## RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	JUDG75	2.4125	.7872	714.0
2.	JUDG80	2.9083	.9118	714.0
3.	JUDG100	2.8845	1.1936	714.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	8.2052	5.4694	2.3387	3

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
JUDG75	5.7927	3.2038	.5841	.5917
JUDG80	5.2969	2.6445	.6723	.4540
JUDG100	5.3207	2.4966	.4105	.8377

## Reliability Coefficients

N of Cases = 714.0

N of Items = 3

Alpha = .7114

### C.1.9 Reliability Analysis for the Measurement of Work on the Computer

#### RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	COMP	2.5691	1.8392	789.0
2.	EMAIL	2.0684	1.6695	789.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	4.6375	10.9446	3.3083	2

#### Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
COMP	2.0684	2.7872	.7775	.
EMAIL	2.5691	3.3826	.7775	.

#### Reliability Coefficients

N of Cases = 789.0

N of Items = 2

Alpha = .8725

### C.1.10 Reliability Analysis for the Measurement of Identity Diversity

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )				
		Mean	Std Dev	Cases
1.	ID_NAT	3.5837	1.2338	520.0
2.	ID_FAM	3.8769	1.0771	520.0
3.	ID_PARTN	4.4731	1.0006	520.0
4.	ID_PROF	3.9288	1.1284	520.0
5.	ID_VOLU	2.7500	1.2809	520.0
6.	ID_BODY	3.6760	.9583	520.0
7.	ID_PERS	3.9010	.8954	520.0
8.	ID_AGE	2.8808	1.0508	520.0
9.	ID_BIOGR	3.0615	1.1035	520.0
10.	ID_ORG	2.7308	1.3171	520.0
11.	ID_FRIEN	4.0529	.8700	520.0
12.	ID_LEIS	4.1125	.8676	520.0
13.	ID_VALUE	3.7827	1.0810	520.0
Statistics for	Mean	Variance	Std Dev	N of
SCALE	46.8106	50.7690	7.1252	Variables 13

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
ID_NAT	43.2269	43.3935	.3601	.7508
ID_FAM	42.9337	43.8429	.4042	.7452
ID_PARTN	42.3375	45.5925	.3090	.7547
ID_PROF	42.8817	44.7052	.3175	.7547
ID_VOLU	44.0606	42.6259	.3888	.7477
ID_BODY	43.1346	43.5146	.5011	.7366
ID_PERS	42.9096	43.8223	.5183	.7361
ID_AGE	43.9298	44.0900	.3995	.7458
ID_BIOGR	43.7490	42.3333	.5026	.7344
ID_ORG	44.0798	42.7176	.3669	.7508
ID_FRIEN	42.7577	44.7947	.4480	.7428
ID_LEIS	42.6981	46.5484	.2929	.7558
ID_VALUE	43.0279	45.5305	.2790	.7582

## Reliability Coefficients

N of Cases = 520      N of Items = 13      Alpha = .7621

**C.2 Professional Identity: Multiple Regression**

**C.3 Domains of Subjective Age: Factor Analyses**

**C.4 Predictors for Subjective Age: Multiple Regression**

**C.5 Structural Equation for Subjective Age: Measurement Model and Predictive Model**

Linear Regression with crossvalidation for the dependent variable *professional identity*

**Variables Entered/Removed<sup>a,b</sup>**

Model	Variables Entered	Variables Removed	Method
1	self-efficacy belief	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	job deprivation	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	professional status	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: professional identity

b. Models are based only on cases for which Approximately 50 % of cases (SAMPLE) = Selected

**Model Summary<sup>d,e</sup>**

Model	R		R Square	Adjusted R Square	Std. Error of the Estimate
	Approximately 50 % of cases (SAMPLE) = Selected (Selected)	Approximately 50 % of cases (SAMPLE) ~ = Selected (Unselected)			
1	.163 <sup>a</sup>		.026	.024	1.049
2	.223 <sup>b</sup>		.050	.045	1.038
3	.265 <sup>c</sup>	.295	.070	.063	1.028

a. Predictors: (Constant), self-efficacy belief

b. Predictors: (Constant), self-efficacy belief, job deprivation

c. Predictors: (Constant), self-efficacy belief, job deprivation, professional status

d. Unless noted otherwise, statistics are based only on cases for which Approximately 50 % of cases (SAMPLE) = Selected.

e. Dependent Variable: professional identity



**ANOVA<sup>d,e</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.592	1	11.592	10.537	.001 <sup>a</sup>
	Residual	426.866	388	1.100		
	Total	438.458	389			
2	Regression	21.744	2	10.872	10.097	.000 <sup>b</sup>
	Residual	416.714	387	1.077		
	Total	438.458	389			
3	Regression	30.777	3	10.259	9.713	.000 <sup>c</sup>
	Residual	407.681	386	1.056		
	Total	438.458	389			

a. Predictors: (Constant), self-efficacy belief

b. Predictors: (Constant), self-efficacy belief, job deprivation

c. Predictors: (Constant), self-efficacy belief, job deprivation, professional status

d. Dependent Variable: professional identity

e. Selecting only cases for which Approximately 50 % of cases (SAMPLE) = Selected

**Coefficients<sup>a,b</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.486	.186		24.138	.000
	self-efficacy belief	-.290	.089	-.163	-3.246	.001
2	(Constant)	3.863	.274		14.109	.000
	self-efficacy belief	-.343	.090	-.192	-3.805	.000
	job deprivation	.344	.112	.155	3.071	.002
3	(Constant)	3.412	.312		10.941	.000
	self-efficacy belief	-.310	.090	-.173	-3.441	.001
	job deprivation	.359	.111	.161	3.226	.001
	professional status	7.409E-02	.025	.145	2.924	.004

a. Dependent Variable: professional identity

b. Selecting only cases for which Approximately 50 % of cases (SAMPLE) = Selected

**Excluded Variables<sup>d</sup>**

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	SEX	-.044 <sup>a</sup>	-.872	.384	-.044	1.000
	age	-.059 <sup>a</sup>	-1.185	.237	-.060	.999
	education level	-.022 <sup>a</sup>	-.430	.667	-.022	.997
	professional status	.138 <sup>a</sup>	2.752	.006	.139	.981
	retirement status	-.083 <sup>a</sup>	-1.663	.097	-.084	.999
	duration of last job	.043 <sup>a</sup>	.864	.388	.044	.998
	duration of retirement	-.015 <sup>a</sup>	-.302	.763	-.015	1.000
	job deprivation	.155 <sup>a</sup>	3.071	.002	.154	.964
2	SEX	-.055 <sup>b</sup>	-1.103	.271	-.056	.995
	age	-.057 <sup>b</sup>	-1.140	.255	-.058	.999
	education level	-.027 <sup>b</sup>	-.548	.584	-.028	.995
	professional status	.145 <sup>b</sup>	2.924	.004	.147	.979
	retirement status	-.080 <sup>b</sup>	-1.615	.107	-.082	.999
	duration of last job	.067 <sup>b</sup>	1.332	.184	.068	.977
	duration of retirement	-.014 <sup>b</sup>	-.281	.779	-.014	1.000
	3	SEX	-.004 <sup>c</sup>	-.068	.946	-.003
age		-.065 <sup>c</sup>	-1.314	.190	-.067	.996
education level		-.102 <sup>c</sup>	-1.909	.057	-.097	.832
retirement status		-.081 <sup>c</sup>	-1.654	.099	-.084	.998
duration of last job		.051 <sup>c</sup>	1.013	.312	.052	.964
duration of retirement		-.007 <sup>c</sup>	-.151	.880	-.008	.998

a. Predictors in the Model: (Constant), self-efficacy belief

b. Predictors in the Model: (Constant), self-efficacy belief, job deprivation

c. Predictors in the Model: (Constant), self-efficacy belief, job deprivation, professional status

d. Dependent Variable: professional identity

**Residuals Statistics<sup>a,b</sup>**

	Approximately 50 % of cases (SAMPLE) = Selected (Selected)					Approximately 50 % of cases (SAMPLE) ~ = Selected (Unselected)				
	Minimum	Maximum	Mean	Std. Deviation	N	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.80	4.61	3.91	.281	390	2.88	4.70	3.91	.297	402
Residual	-3.25	1.67	.00	1.024	390	-3.52	1.86	.10	.992	402
Std. Predicted Value	-3.942	2.492	.000	1.000	390	-3.649	2.818	-.002	1.056	402
Std. Residual	-3.158	1.626	.000	.996	390	-3.427	1.812	.098	.965	402

a. Dependent Variable: professional identity

b. Pooled Cases

## Factor Analyses for different aspects of subjective age

### Communalities

	Initial	Extraction
general feeling	1.000	.624
activities	1.000	.648
interests	1.000	.394
attractiveness	1.000	.595

Extraction Method: Principal Component Analysis.

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.262	56.557	56.557	2.262	56.557	56.557
2	.736	18.412	74.969			
3	.526	13.139	88.107			
4	.476	11.893	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix<sup>a</sup>

	Component
	1
general feeling	.790
activities	.805
interests	.628
attractiveness	.772

Extraction Method: Principal Component Analysis.

<sup>a</sup>. 1 components extracted.

### Rotated Component Matrix<sup>a</sup>

<sup>a</sup>. Only one component was extracted.  
The solution cannot be rotated.

### Communalities

	Initial	Extraction
general feeling	1.000	.577
fitness	1.000	.768
activities	1.000	.620
relations to others	1.000	.620
interests	1.000	.591
mental abilities	1.000	.565
esteem by society	1.000	.543
esteem by fam. + friends	1.000	.510
attractiveness		

Extraction Method: Principal Component Analysis.

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.253	47.258	47.258	4.253	47.258	47.258	5.555
2	1.209	13.434	60.692	1.209	13.434	60.692	3.424
3	.802	8.916	69.608				
4	.609	6.761	76.369				
5	.505	5.613	81.982				
6	.468	5.195	87.177				
7	.427	4.739	91.916				
8	.413	4.589	96.505				
9							

Extraction Method: Principal Component Analysis.

<sup>a</sup>. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**Component Matrix <sup>a</sup>**

	Component	
	1	2
general feeling	.726	
fitness	.667	-.568
activities	.715	-.331
relations to others	.652	.441
interests	.644	.420
mental abilities	.667	.347
esteem by society	.702	
esteem by fam. + friends	.696	
attractiveness		

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

**Component Correlation Matrix**

Component	1	2
1	1.000	-.499
2	-.499	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

**Pattern Matrix <sup>a</sup>**

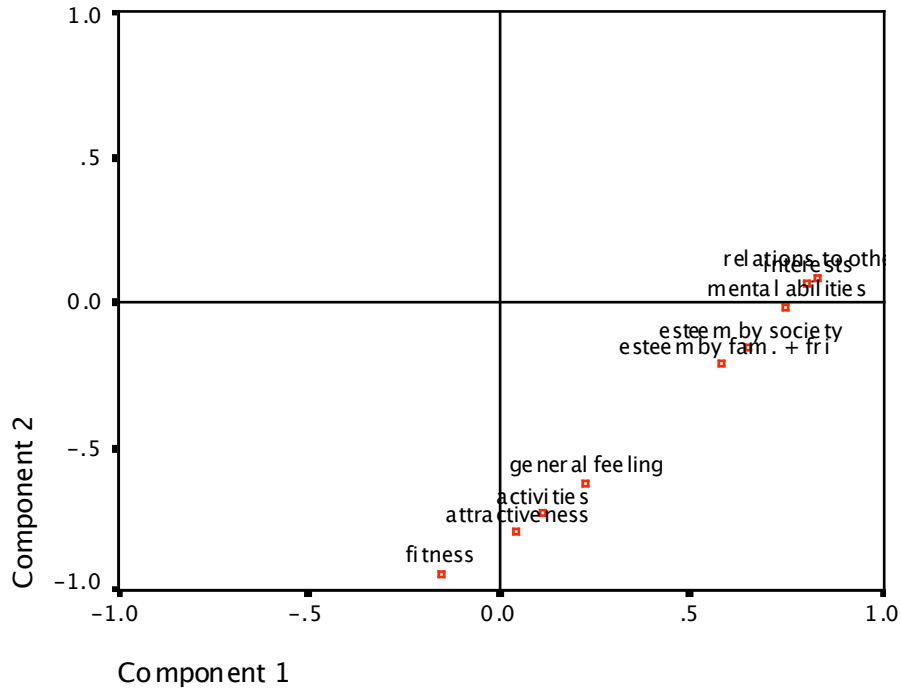
	Component	
	1	2
general feeling		-.626
fitness		-.944
activities		-.730
relations to others	.827	
interests	.801	
mental abilities	.743	
esteem by society	.644	
esteem by fam. + friends	.579	
attractiveness		-.798

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 6 iterations.

# Component Plot in Rotated Space



Linear Regression with crossvalidation for the dependent variable *subjective age*

**Variables Entered/Removed<sup>a,b</sup>**

Model	Variables Entered	Variables Removed	Method
1	satisfaction with fitness		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	satisfaction with phys.attractiveness		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	optimism		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	"youth-preserving" activities		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	health state		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: KASTENBA

b. Models are based only on cases for which Approximately 50 % of cases (SAMPLE) = Selected

**Model Summary<sup>f,g</sup>**

Model	R		R Square	Adjusted R Square	Std. Error of the Estimate
	Approximately 50 % of cases (SAMPLE) = Selected (Selected)	Approximately 50 % of cases (SAMPLE) ~ = Selected (Unselected)			
1	.475 <sup>a</sup>		.225	.223	.47726
2	.526 <sup>b</sup>		.277	.273	.46176
3	.557 <sup>c</sup>		.310	.305	.45155
4	.576 <sup>d</sup>		.331	.324	.44518
5	.594 <sup>e</sup>	.545	.353	.344	.43857

a. Predictors: (Constant), satisfaction with fitness

b. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness

c. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism

d. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism, "youth-preserving" activities

e. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism, "youth-preserving" activities, health state

f. Unless noted otherwise, statistics are based only on cases for which Approximately 50 % of cases (SAMPLE) = Selected.

g. Dependent Variable: KASTENBA

**ANOVA<sup>f,9</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.726	1	25.726	112.943	.000 <sup>a</sup>
	Residual	88.379	388	.228		
	Total	114.105	389			
2	Regression	31.586	2	15.793	74.068	.000 <sup>b</sup>
	Residual	82.519	387	.213		
	Total	114.105	389			
3	Regression	35.399	3	11.800	57.870	.000 <sup>c</sup>
	Residual	78.706	386	.204		
	Total	114.105	389			
4	Regression	37.803	4	9.451	47.686	.000 <sup>d</sup>
	Residual	76.302	385	.198		
	Total	114.105	389			
5	Regression	40.244	5	8.049	41.846	.000 <sup>e</sup>
	Residual	73.861	384	.192		
	Total	114.105	389			

- a. Predictors: (Constant), satisfaction with fitness
- b. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness
- c. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism
- d. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism, "youth-preserving" activities
- e. Predictors: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism, "youth-preserving" activities, health state
- f. Dependent Variable: KASTENBA
- g. Selecting only cases for which Approximately 50 % of cases (SAMPLE) = Selected



**Coefficients<sup>a,b</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.223	.060		70.653	.000
	satisfaction with fitness	-.277	.026	-.475	-10.627	.000
2	(Constant)	4.425	.069		63.751	.000
	satisfaction with fitness	-.183	.031	-.313	-5.894	.000
	satisfaction with phys.attractiveness	-.179	.034	-.278	-5.242	.000
3	(Constant)	4.764	.104		45.928	.000
	satisfaction with fitness	-.168	.030	-.289	-5.523	.000
	satisfaction with phys.attractiveness	-.166	.033	-.258	-4.945	.000
	optimism	-.184	.042	-.187	-4.324	.000
4	(Constant)	4.553	.119		38.314	.000
	satisfaction with fitness	-.156	.030	-.267	-5.157	.000
	satisfaction with phys.attractiveness	-.154	.033	-.239	-4.627	.000
	optimism	-.168	.042	-.171	-3.978	.000
	"youth-preserving" activities	4.837E-02	.014	.151	3.482	.001
5	(Constant)	4.647	.120		38.726	.000
	satisfaction with fitness	-.106	.033	-.181	-3.203	.001
	satisfaction with phys.attractiveness	-.142	.033	-.222	-4.336	.000
	optimism	-.152	.042	-.155	-3.644	.000
	"youth-preserving" activities	4.946E-02	.014	.155	3.614	.000
	health state	-.128	.036	-.178	-3.563	.000

a. Dependent Variable: KASTENBA

b. Selecting only cases for which Approximately 50 % of cases (SAMPLE) = Selected

**Excluded Variables <sup>f</sup>**

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	health state	-.220 <sup>a</sup>	-4.190	.000	-.208	.692
	satisfaction with phys.attractiveness	-.278 <sup>a</sup>	-5.242	.000	-.258	.662
	self-efficacy belief	-.135 <sup>a</sup>	-2.913	.004	-.146	.910
	optimism	-.207 <sup>a</sup>	-4.655	.000	-.230	.962
	satisfaction	-.233 <sup>a</sup>	-3.912	.000	-.195	.542
2	"youth-preserving" activities	.194 <sup>a</sup>	4.325	.000	.215	.946
	health state	-.195 <sup>b</sup>	-3.788	.000	-.189	.685
	self-efficacy belief	-.098 <sup>b</sup>	-2.131	.034	-.108	.884
	optimism	-.187 <sup>b</sup>	-4.324	.000	-.215	.954
	satisfaction	-.100 <sup>b</sup>	-1.463	.144	-.074	.396
3	"youth-preserving" activities	.170 <sup>b</sup>	3.868	.000	.193	.934
	health state	-.174 <sup>c</sup>	-3.429	.001	-.172	.677
	self-efficacy belief	-.014 <sup>c</sup>	-.280	.780	-.014	.710
	satisfaction	.004 <sup>c</sup>	.051	.959	.003	.345
4	"youth-preserving" activities	.151 <sup>c</sup>	3.482	.001	.175	.923
	health state	-.178 <sup>d</sup>	-3.563	.000	-.179	.677
	self-efficacy belief	-.009 <sup>d</sup>	-.178	.859	-.009	.710
5	satisfaction	.034 <sup>d</sup>	.472	.637	.024	.341
	self-efficacy belief	.000 <sup>e</sup>	-.005	.996	.000	.708
	satisfaction	.037 <sup>e</sup>	.528	.598	.027	.340

- a. Predictors in the Model: (Constant), satisfaction with fitness
- b. Predictors in the Model: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness
- c. Predictors in the Model: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism
- d. Predictors in the Model: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism, "youth-preserving" activities
- e. Predictors in the Model: (Constant), satisfaction with fitness, satisfaction with phys.attractiveness, optimism, "youth-preserving" activities, health state
- f. Dependent Variable: KASTENBA

**Residuals Statistics<sup>a,b</sup>**

	Approximately 50 % of cases (SAMPLE) =					Approximately 50 % of cases (SAMPLE) ~ = Selected				
	Minimum	Maximum	Mean	Std. Deviat	N	Minimum	Maximum	Mean	Std. Deviatio	N
Predicted Value	2.4577	4.3660	3.6424	.32165	390	2.4304	4.3965	3.5902	.31823	402
Residual	-1.4744	1.4226	.0000	.43574	390	-1.2562	1.4798	.0072	.44685	402
Std. Predicted Value	-3.683	2.250	.000	1.000	390	-3.768	2.345	-.162	.989	402
Std. Residual	-3.362	3.244	.000	.994	390	-2.864	3.374	.016	1.019	402

- a. Dependent Variable: KASTENBA
- b. Pooled Cases

**Structural Equation Models**

**Measurement Model of Subjective Age**

Sample size: 390

Computation of degrees of freedom:

```

                Number of distinct sample moments: 14
    Number of distinct parameters to be estimated: 12
    -----
    Degrees of freedom: 2
  
```

Minimum was achieved.

Chi-square = 1.141  
 Degrees of freedom = 2  
 Probability level = 0.565

Maximum Likelihood Estimates

Regression Weights:	Estimate	S.E.	C.R.	Label
sa_int <----- subjective_age	1.000			
sa_gen <----- subjective_age	1.568	0.213	7.346	
sa_act <----- subjective_age	1.871	0.257	7.289	
sa_attr <----- subjective_age	1.894	0.264	7.184	

Standardized Regression Weights:	Estimate
sa_int <----- subjective_age	0.431
sa_gen <----- subjective_age	0.772
sa_act <----- subjective_age	0.741
sa_attr <----- subjective_age	0.700

Summary of models

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	1.141	2	0.565	0.570
Saturated model	14	0.000	0		
Independence model	4	5413.824	10	0.000	541.382

Model	DELTA1 NFI	RHO1 RFI	DELTA2 IFI	RHO2 TLI	CFI
Default model	1.000	0.999	1.000	1.001	1.000
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.000	0.000	0.085	0.791
Independence model	1.179	1.152	1.205	0.000

**Measurement Model of Subjective Age: Cross-Validation**

Sample size: 402 (sample split by a random filter variable)

Chi-square = 2.255  
 Degrees of freedom = 2  
 Probability level = 0.324

Summary of models

```

-----
                Model  NPAR      CMIN    DF      P      CMIN/DF
-----
    Default model    12      2.255     2    0.324      1.128
    Saturated model   14      0.000     0    0.000
    Independence model  4    5500.868    10    0.000    550.087

                Model      DELTA1    RHO1    DELTA2    RHO2
                Model      NFI      RFI      IFI      TLI      CFI
-----
    Default model    1.000    0.998    1.000    1.000    1.000
    Saturated model    1.000
    Independence model  0.000    0.000    0.000    0.000    0.000

                Model      RMSEA    LO 90    HI 90    PCLOSE
-----
    Default model    0.018    0.000    0.102    0.616
    Independence model  1.170    1.144    1.196    0.000
    
```

\*\*\*\*\*

**Predictive Model of Subjective Age**

Sample size: 390

Computation of degrees of freedom:

```

                Number of distinct sample moments: 230
                Number of distinct parameters to be estimated: 70
                -----
                Degrees of freedom: 160
    
```

Minimum was achieved.

Chi-square = 561.724  
 Degrees of freedom = 160  
 Probability level = 0.000

Maximum Likelihood Estimates

```

-----
Regression Weights:                Estimate    S.E.    C.R.
-----
subjective age <----- personality    0.296    0.168    1.763
subjective age <----- body            1.000
subjective age <----- behavior   -0.568    0.265   -2.145
subjective age <----- satisfaction -0.726    0.221   -3.284
m_seef <----- personality          1.000
m_opt <----- personality            0.742    0.077    9.592
healthst <----- body                0.812    0.069   11.842
sat_attr <----- body                1.000
sickleav <----- body                0.750    0.092    8.191
    
```

sat_fitn <----- body	1.241	0.089	13.935
edv <----- behavior	1.000		
phone <----- behavior	-0.271	0.126	-2.151
sat_act <----- satisfaction	1.452	0.171	8.491
sat_fin <----- satisfaction	1.000		
msatsoc <----- satisfaction	1.012	0.119	8.474
msatcogn <----- satisfaction	1.009	0.123	8.191
sat_life <----- satisfaction	1.002	0.123	8.175
actyouth <----- behavior	2.427	0.841	2.884
learnt <----- behavior	1.500	0.517	2.899
m_judg <----- personality	0.706	0.104	6.810
sa_attr <----- subjective age	-0.888	0.136	-6.545
sa_int <----- subjective age	-0.409	0.079	-5.178
sa_gen <----- subjective age	-0.633	0.098	-6.471
sa_act <----- subjective age	-0.803	0.124	-6.486

Standardized Regression Weights: Estimate

subjective age <----- personality	0.203
subjective age <----- body	0.904
subjective age <----- behavior	-0.291
subjective age <----- satisfaction	-0.475
m_seef <----- personality	0.784
m_opt <----- personality	0.626
healthst <----- body	0.668
sat_attr <----- body	0.720
sickleav <----- body	0.457
sat_fitn <----- body	0.813
edv <----- behavior	0.215
phone <----- behavior	-0.198
sat_act <----- satisfaction	0.745
sat_fin <----- satisfaction	0.467
msatsoc <----- satisfaction	0.740
msatcogn <----- satisfaction	0.681
sat_life <----- satisfaction	0.678
actyouth <----- behavior	0.501
learnt <----- behavior	0.580
m_judg <----- personality	0.415
sa_attr <----- subjective age	-0.760
sa_int <----- subjective age	-0.408
sa_gen <----- subjective age	-0.722
sa_act <----- subjective age	-0.736

Covariances: Estimate S.E. C.R.

personality <-----> behavior	-0.077	0.029	-2.709
personality <-----> body	0.142	0.023	6.271
satisfaction <-----> body	0.210	0.031	6.682
satisfaction <-----> personality	0.153	0.023	6.635
body <-----> behavior	-0.069	0.029	-2.424
satisfaction <-----> behavior	-0.075	0.028	-2.671

Correlations: Estimate

personality <-----> behavior	-0.471
personality <-----> body	0.488
satisfaction <-----> body	0.761
satisfaction <-----> personality	0.731
body <-----> behavior	-0.319
satisfaction <-----> behavior	-0.477

Summary of models

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	70	561.724	160	0.000	3.511
Saturated model	230	0.000	0		
Independence model	20	19297.436	210	0.000	91.893

Model	DELTA1 NFI	RHO1 RFI	DELTA2 IFI	RHO2 TLI	CFI
Default model	0.971	0.962	0.979	0.972	0.979
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.080	0.073	0.088	0.000
Independence model	0.483	0.478	0.489	0.000

**Predictive Model of Subjective Age: Cross-Validation**

Sample size: 402 (sample split by a random filter variable)

Minimum was achieved.

Chi-square = 622.009

Degrees of freedom = 160

Probability level = 0.000

Summary of models

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	70	622.009	160	0.000	3.888
Saturated model	230	0.000	0		
Independence model	20	20061.023	210	0.000	95.529

Model	DELTA1 NFI	RHO1 RFI	DELTA2 IFI	RHO2 TLI	CFI
Default model	0.969	0.959	0.977	0.969	0.977
Saturated model	1.000		1.000		1.000
Independence model	0.000	0.000	0.000	0.000	0.000

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.085	0.078	0.092	0.000
Independence model	0.486	0.480	0.491	0.000