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## Objective

To assess the efficiency of downward social comparison as a mechanism for adaptation during the frailty process in two periods of later life (80-85 and 86-94 years of age).  
Therefore we investigate the relationships between health evolution, well-being and downward social comparison among the oldest old.

## Indicators and methods

- We examine two dimensions of well-being: the affective and the cognitive components. We use a mean index of positive and negative affects to measure the affective dimension of well-being and an index of perception of health to evaluate the cognitive dimension.
- Social comparison was measured by asking self-respondents to compare their own state of health with that of their peers.
- To evaluate health we used three health statuses: robust (R), frail (F) and ADL-dependent (D) (cf. Guilley, et al. (submitted)).
- Then, we constructed individual health trajectories on two successive waves in order to observe health evolution.

## Sample

295 community-dwelling octogenarians aged 80-84 years were randomly selected at baseline in two contrasted regions of Switzerland (urban and semi-urban). The participants in the Swiss Interdisciplinary Longitudinal Study on the Oldest Old (SWILSO-O) were interviewed up to 9 times from 1994 to 2004. The information was gathered by means of face-to-face interviews (total N=1317) based on a closed-end questionnaire.

## INDICATORS

### The two Dimensions of Well-Being

#### Affective dimension :

**Affective well-being:** Mean index of 8 items measuring frequency of positive and negative affects

#### Cognitive dimension :

**Perception of health:** Mean index of 2 items: self-rated health and frequency of worries about one's own health

### Social comparison

If you compare your health to that of your peers, would you say it is...?

Social comparison in 1994 and in 2004 (survivors only)

	1994	2004
Better	68.2	61.4
Equivalent	27.3 (ns)	27.3
Worse	4.5	11.4

- ❖ About 2/3 of participants consider their health better than that of their peers in 1994
- ❖ Direction of social comparison remains stable over time

### Health Status and Health Trajectories

**ADL-Dependent** one or more ADL incapacities

**Frail** no incapacities on the ADL, but two or more deficiencies on the dimensions of frailty (mobility, memory, energy, physical ailments, sensory capacities)

**Robust** no ADL incapacities and not more than one affected dimension of frailty

The six most frequent individual health trajectories

Continuity of the same health status	Health decline	Health improvement
N	N	N
R - R 273	R - F 132	F - R 95
F - F 333	F - D 57	
D - D 83		

⚠ Continuity of the same health status does not mean health stability: deficiencies increase for « F-F » and « D-D ».

## RESULTS: HEALTH TRAJECTORIES, SOCIAL COMPARISON AND WELL-BEING

Changes in well-being (Wilcoxon tests), unilateral associations (êta) with social comparison and analyses of variance with Duncan's test (post hoc) (measured at T+1) by segment of health trajectories

### Between 80 and 85 years of age

		Changes in well-being		Association with social comparison		Mean level		
		Affective well-being	Perception of health	Affective well-being	Perception of health	Social comparison	Affective well-being	Perception of health
R-R	n=167	→	→	0	0	0.51 (a)	0.25 (a)	0.44 (a)
F-R	n=50	↗	↗	0	0	0.40 (a)	0.14 (a)	0.23 (a)
R-F	n=59	→	→	+	+	0.47 (a)	0.10 (a)	0.24 (a)
F-F	n=161	→	→	+	+	0.02 (b)	-0.00 (a)	-0.07 (b)
F-D	n=21	↘	↘	0	0	-0.83 (c)	-0.87 (b)	-0.62 (c)
D-D	n=26	→	→	+	+	-0.75 (c)	-0.50 (c)	-0.32 (b)

Social comparison is positively associated (+) with well-being stability even when health declines. Mean level of well-being remains high (a) even when frailty appears (R-F) and intensifies (F-F) at least on the affective well-being.

### Between 86 and 94 years of age

		Changes in well-being		Association with social comparison		Mean level		
		Affective well-being	Perception of health	Affective well-being	Perception of health	Social comparison	Affective well-being	Perception of health
R-R	n=106	→	→	0	+	0.44 (a, b)	0.30 (a)	0.49 (a)
F-R	n=45	→	↗	0	0	0.59 (a)	0.26 (a)	0.42 (a)
R-F	n=73	↘	↘	+	0	0.34 (a, b)	0.11 (a)	0.11 (b)
F-F	n=172	↘	→	0	+	0.21 (b)	-0.13 (b)	-0.11 (b)
F-D	n=36	→	↘	0	0	-0.63 (c)	-0.33 (b, c)	-0.62 (c)
D-D	n=57	→	→	0	0	-0.53 (c)	-0.46 (c)	-0.49 (c)

Well-being decreases when health starts to decline although social comparison as an adaptation mechanism is activated. Mean level of well-being is - on its cognitive dimension - significantly lower (b) than robusts' level as soon as frailty appears (R-F).

## CONCLUSION

- Downward social comparison is a functional and very efficient adaptation mechanism up to the age of 85.
- After 85 years of age its efficiency diminishes with the aging process since it fails to preserve well-being. The growing frailty process may explain why the oldest old can not activate efficiently downward social comparison.