Livelihood Activities, Activity Satisfaction and Well-being: Examples from Coastal Fisheries
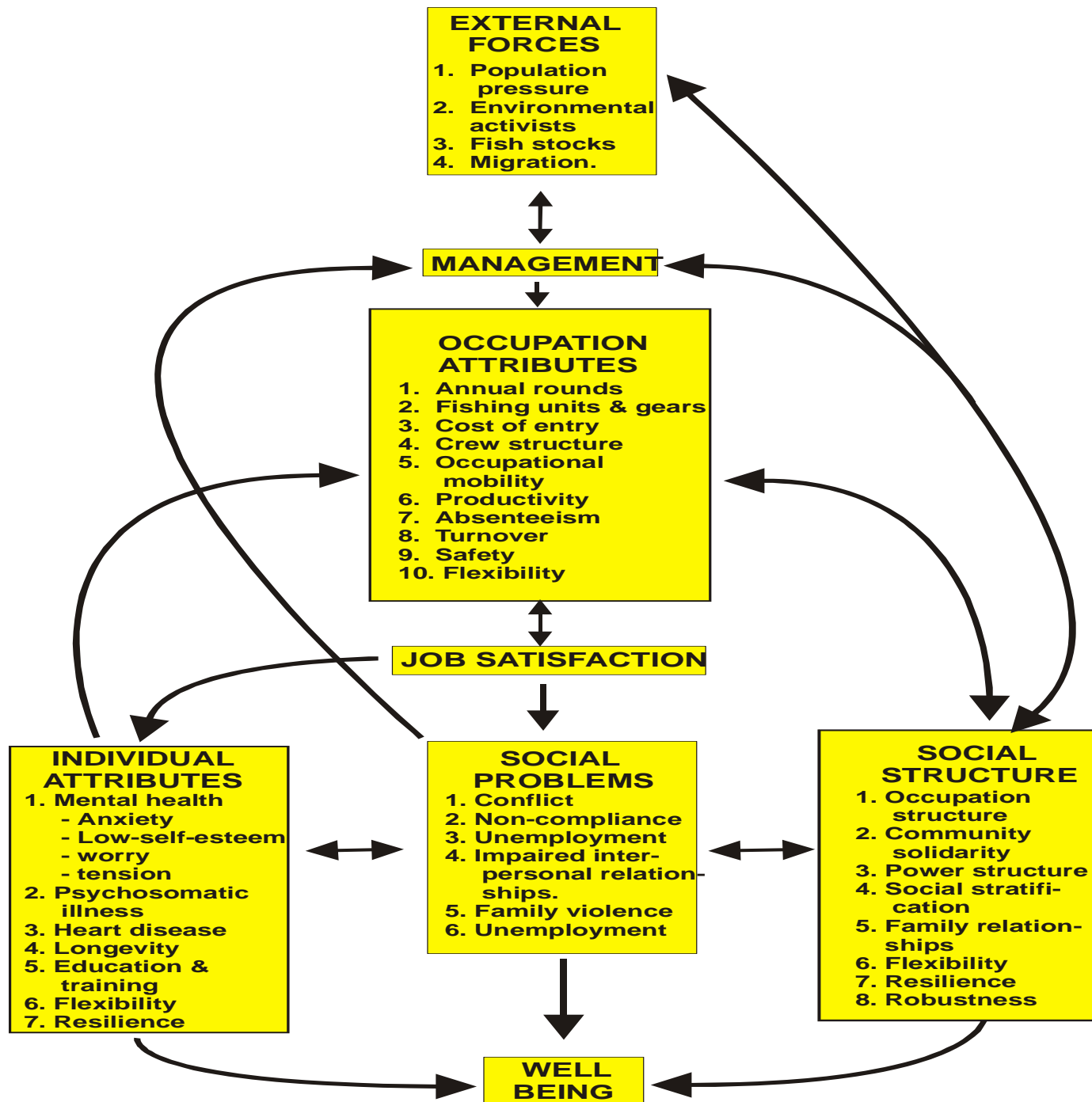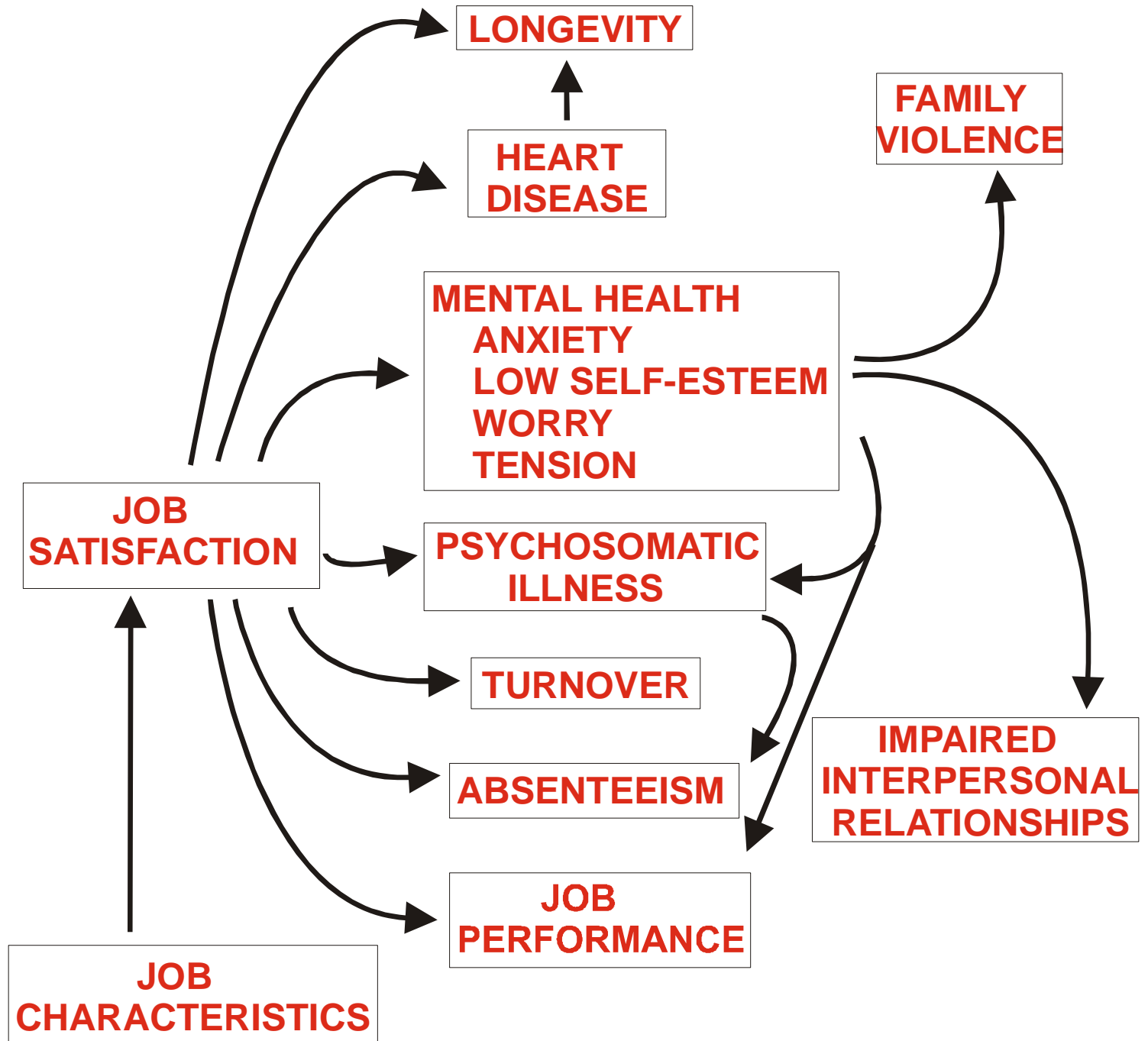
Richard Pollnac, U. of Rhode Island

EXTERNAL FORCES
1. Population pressure
2. Environmental activists
3. Fish stocks
4. Migration.

MANAGEMENT

OCCUPATION ATTRIBUTES
1. Annual rounds
2. Fishing units & gears
3. Cost of entry
4. Crew structure
5. Occupational mobility
6. Productivity
7. Absenteeism
8. Turnover
9. Safety
10. Flexibility

JOB SATISFACTION

INDIVIDUAL ATTRIBUTES
1. Mental health
   - Anxiety
   - Low-self-esteem
   - worry
   - tension
2. Psychosomatic illness
3. Heart disease
4. Longevity
5. Education & training
6. Flexibility
7. Resilience

SOCIAL PROBLEMS
1. Conflict
2. Non-compliance
3. Unemployment
4. Impaired inter-personal relation-ships.
5. Family violence
6. Unemployment

SOCIAL STRUCTURE
1. Occupation structure
2. Community solidarity
3. Power structure
4. Social stratifi-cation
5. Family relation-ships
6. Flexibility
7. Resilience
8. Robustness

WELL BEING

LONGEVITY

HEART
DISEASE

FAMILY
VIOLENCE

MENTAL HEALTH
ANXIETY
LOW SELF-ESTEEM
WORRY
TENSION

JOB
SATISFACTION

PSYCHOSOMATIC
ILLNESS

TURNOVER

IMPAIRED
INTERPERSONAL
RELATIONSHIPS

ABSENTEEISM

JOB
PERFORMANCE

JOB
CHARACTERISTICS

References for figures

- Richard Pollnac, T. Seara & L Colburn **2014** Aspects of Fishery Management, Job Satisfaction, and Well-Being among Commercial Fishermen in the Northeast Region of the United States, *Society & Natural Resources* DOI: 10.1080/08941920.2014.933924

- Pollnac, R.B., Iris Monnereau, Victor Ruiz, John Poggie & Azure Westwood **2011** Stress and the occupation of fishing. *in* Langan-Fox J & Cooper C.L., Eds. Chapter 15 (309-321) in *Handbook of Stress in the Occupations*. Chichester, UK: Edward Elgar Publishing.

- Pollnac, R. B., S. Abbott-Jamieson, C. Smith, M. L. Miller, P. M. Clay, and B. Oles. **2006.** Toward a model for fisheries social impact assessment. *Marine Fisheries Review* 68(1-4):1–18

- Pollnac, R.B., and J.J. Poggie. **1988.** The structure of job satisfaction among New England fishermen and its application to fisheries management policy. *American Anthropologist* 90(4):888-901.

Job Satisfaction Example

- **Why job satisfaction? The job consumes 1/3 or more of your working day….**

- **How does one measure job satisfaction?**

- **General job satisfaction questions: *1) If you had your life to live over would you still become a fisherman? 2) Would you advise a young person to go into fishing today?***

- **Use job satisfaction scales developed for fishing that have been tested world-wide over the past 37 years.**

SOCIAL & PSYCHOLOGICAL NEEDS

Time away from home
Physical fatigue of the job
Healthfulness of job

SELF ACTUALIZATION

Adventure of the job

Challenge of the job

Opportunity to be own boss

BASIC NEEDS
Your actual earnings
Predictability of earnings
Job Safety

WELL-BEING

- **Pre-testing of items resulted in an indicator formed from the summing 3 well being measures (How satisfied are you with your life, How satisfied are you with your physical health, and How often do you feel really happy?). These items are scaled from 1 to 5 resulting in a scale potentially ranging from 3 to 15.**

- **Oswald & Wu 29 Jan. 2010 Vol. 327 *SCIENCE* have presented objective confirmation of responses to the subjective measure "In general, how satisfied are you with your life".**

Testing the model

- **The model indicates that management induced changes in job characteristics can impact job satisfaction which then can change well-being.**

- **Rhode Island fishermen have been impacted by numerous changes in fishery management in the past 10 years.**

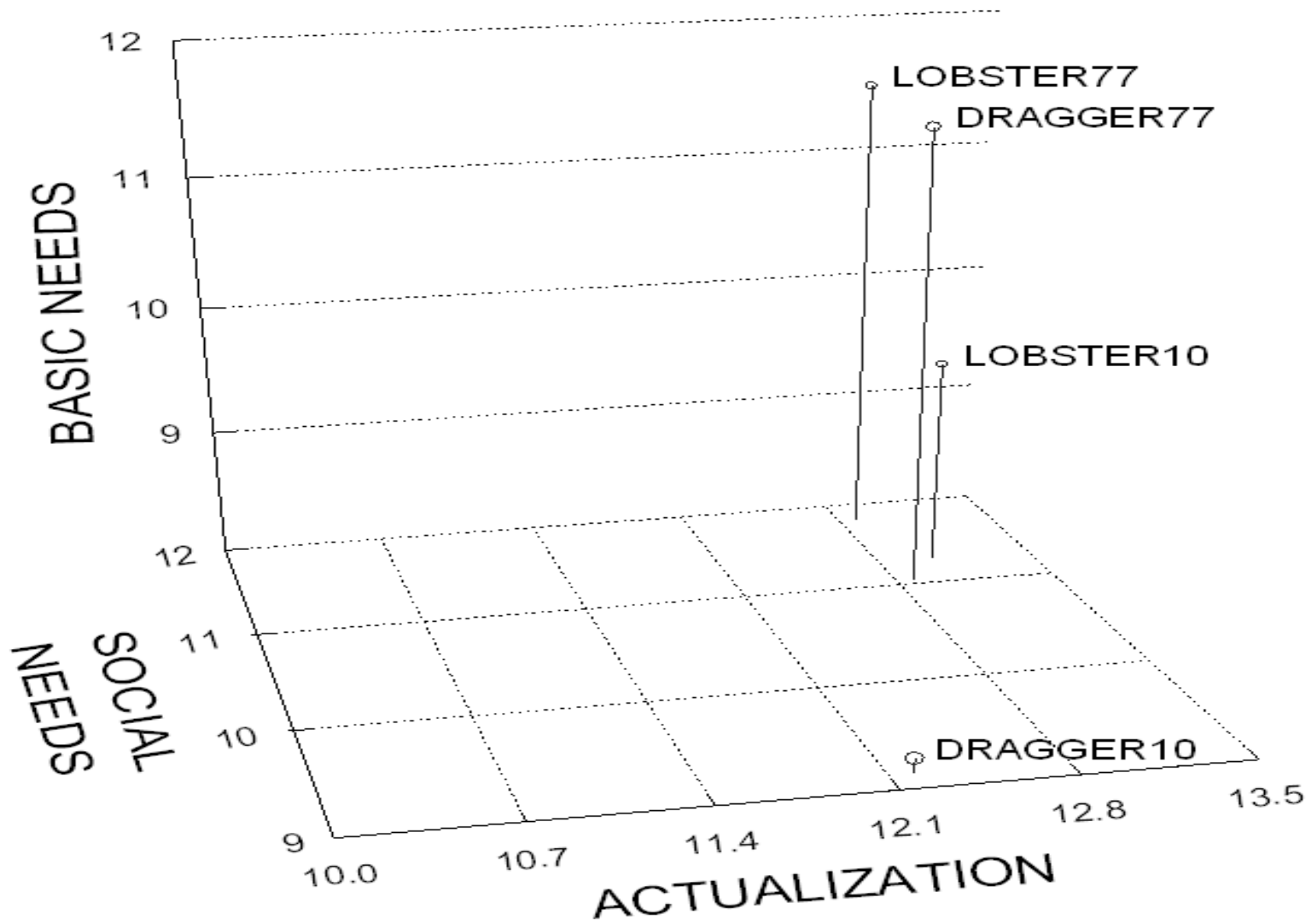- **Lets look at changes in job satisfaction among Rhode Island fishermen over the past 3 decades.**

# Job satisfaction through time (RI)
N=236, Social Needs p<0.005, Basic Needs p<0.001
Actualization p>0.005
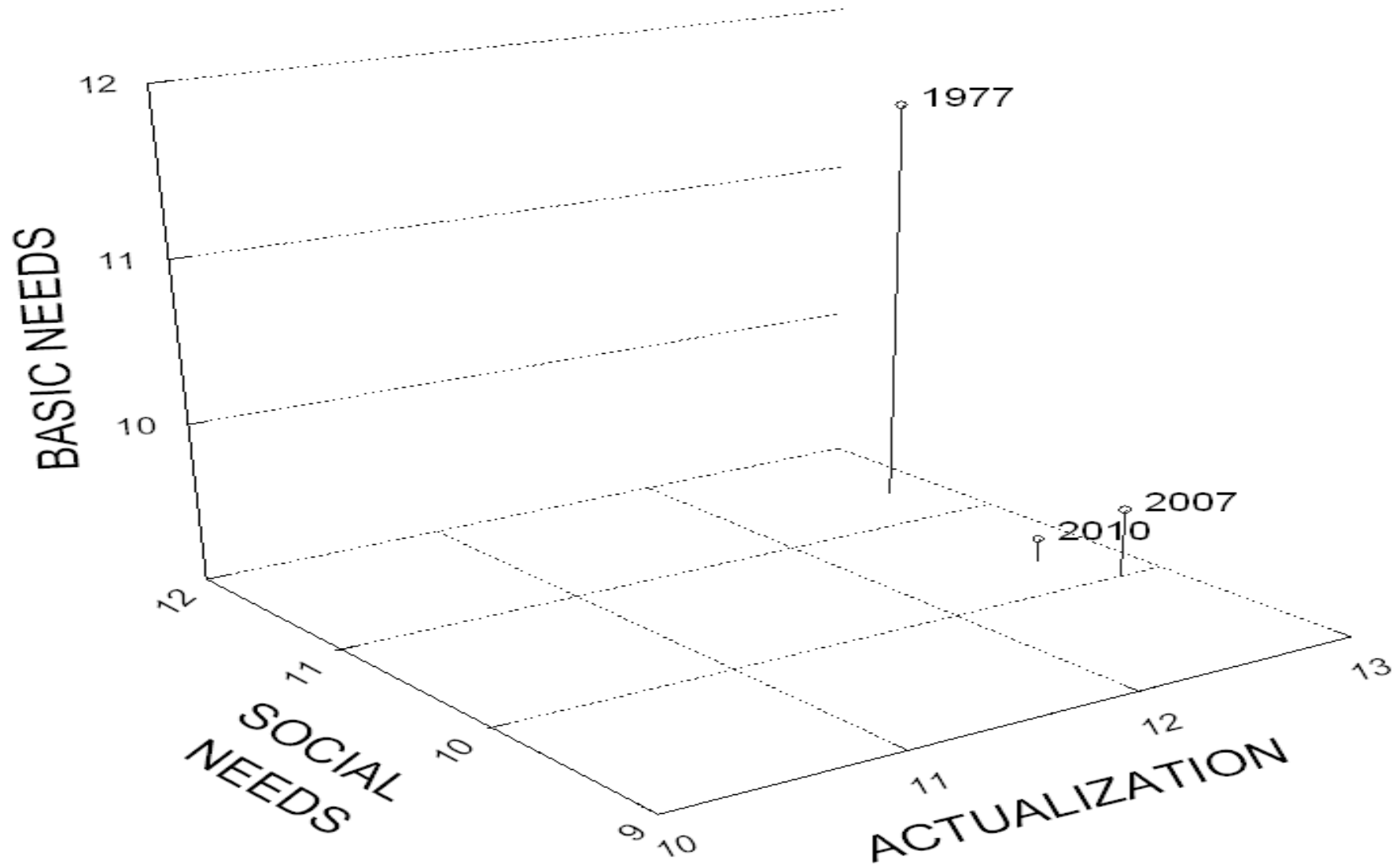
FISHING TYPE & JOB SATISFACTION THROUGH TIME (RI)

Correlations between job satisfaction scales and well-being indices (RI 2010).

	Well-being Index	
Basic Needs	0.394***	
Social-Psychological Needs	0.554***	
Self Actualization	0.398***	
Advise Young to Fish	0.206*	
Fish Again	0.367***	
	***p<0.001 **p<0.01 *p<0.05	

WHAT HAPPENS TO JOB SATISFACTION IF FISHERMEN LEAVE THE OCCUPATION?

- Does job satisfaction decrease?
- *It increases on the social-psychological component*
- **decreases for self-actualization.**
- No difference for basic needs.
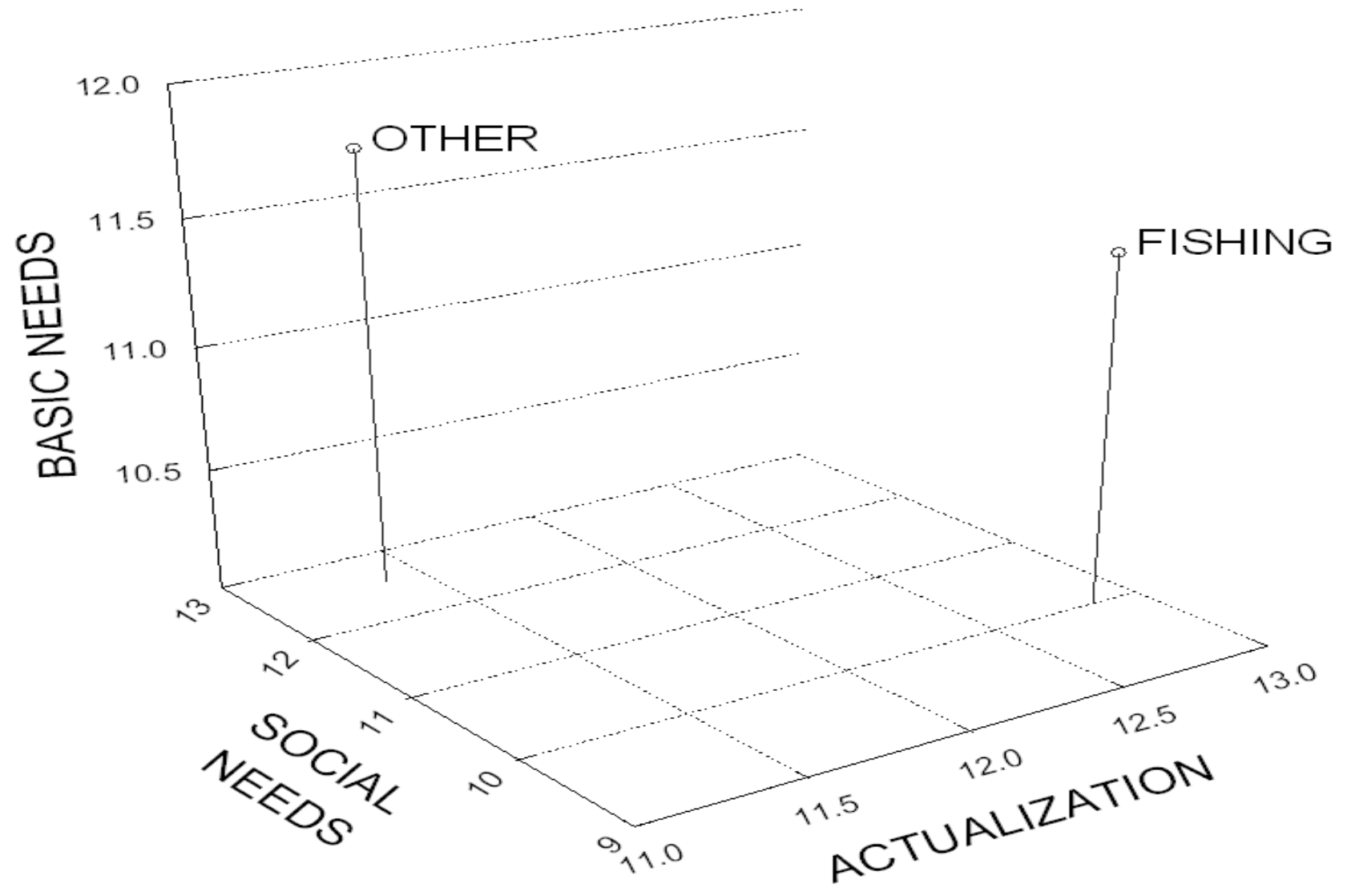
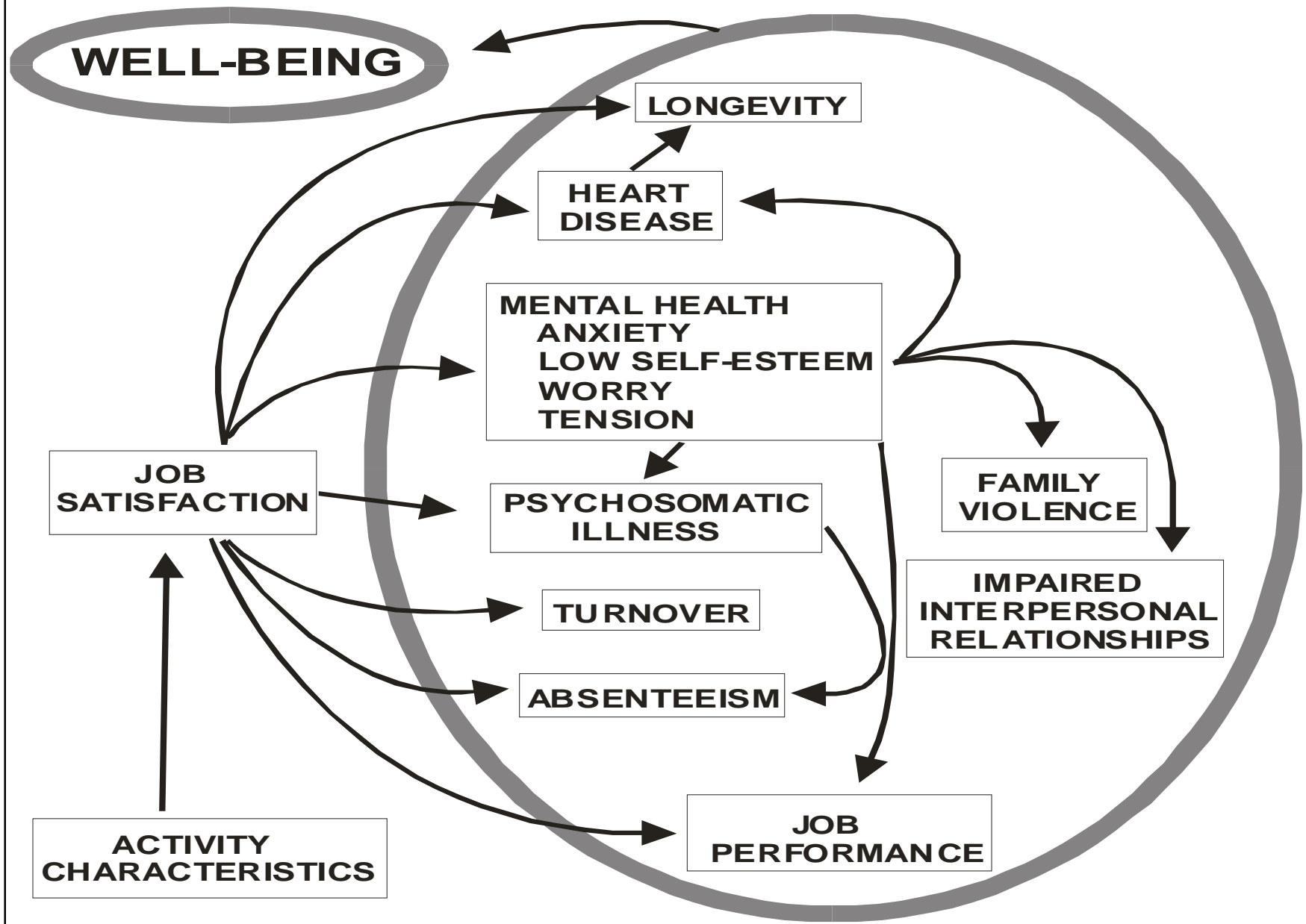# As self actualization decreased, so did perceptions of individual well being.

Table 5.4. Correlations between change in job satisfaction levels and individual well being.

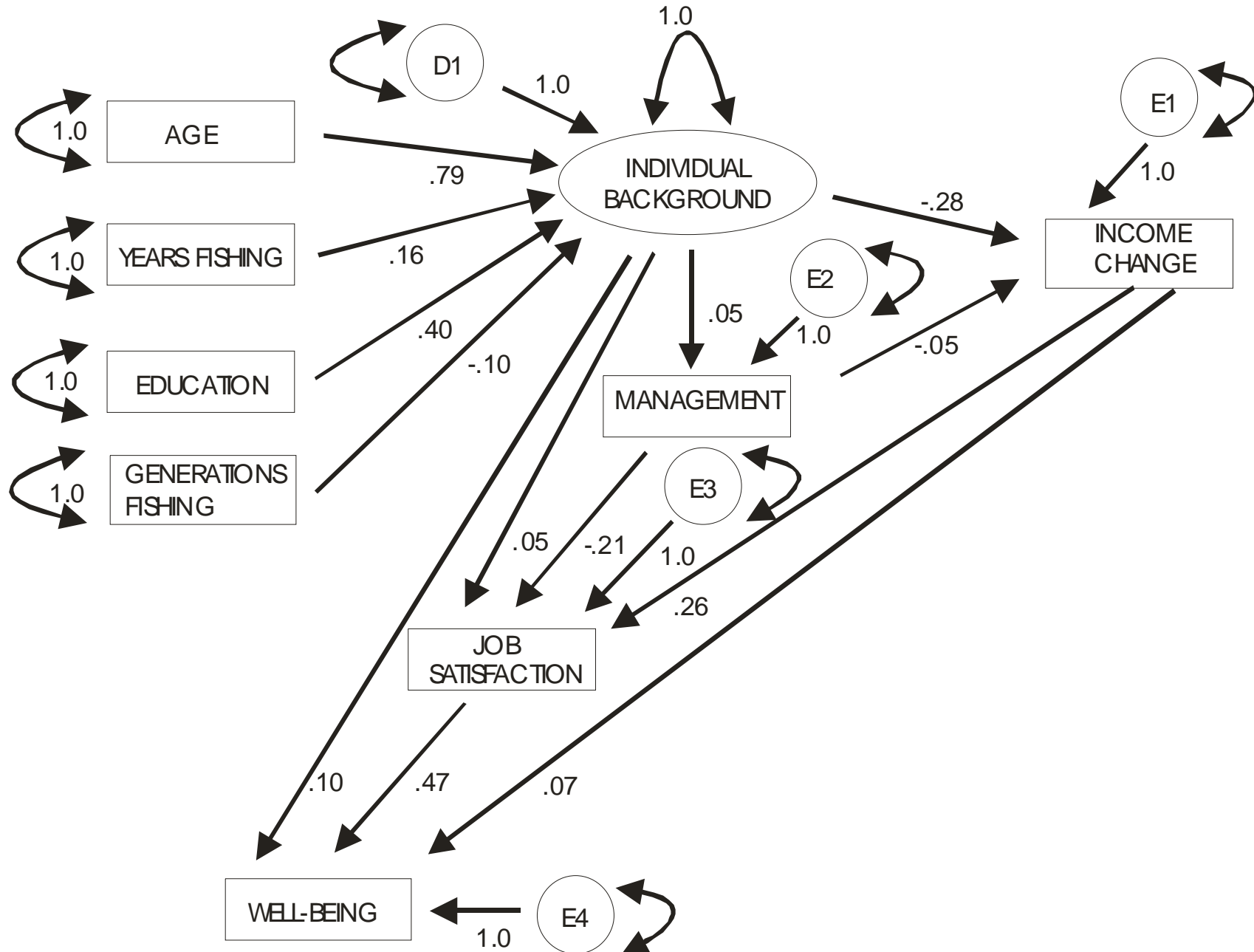|	Well-being
Change in Basic Needs	-0.105
Change in Social-Psychological Needs	0.008
Change in Self Actualization	**0.517***

*p<0.05 (1-tail test)

So what?

- Management has clearly had a negative impact on job satisfaction, which we found is strongly related to fishermen's subjective well-being.

- Although the sample of fishermen who had left fishing was small, we found a strong negative impact on the self-actualization component of job satisfaction which was strongly related to a decrease in well-being.

- These impacts on job satisfaction are important!

Figure 6.1. Multiple impacts of job satisfaction.

WELL-BEING

LONGEVITY

HEART DISEASE

MENTAL HEALTH
ANXIETY
LOW SELF-ESTEEM
WORRY
TENSION

JOB SATISFACTION

PSYCHOSOMATIC ILLNESS

FAMILY VIOLENCE

TURNOVER

IMPAIRED INTERPERSONAL RELATIONSHIPS

ABSENTEEISM

ACTIVITY CHARACTERISTICS

JOB PERFORMANCE

Path analysis (RAMONA) of model derived from NESIA model N=478

Test of the Model

- The model was tested using the Maximum Wishart likelihood method.

- Goodness of fit was evaluated using the root mean square error of approximation (RMSEA). For our model RMSEA=0.022 (90% confidence interval 0.000-0.063).

- According to Browne (2009) an RMSEA less than or equal to 0.05 is a "close fit." All path coefficients are statistically significant at better than the 0.05 level, most at the 0.001 level.