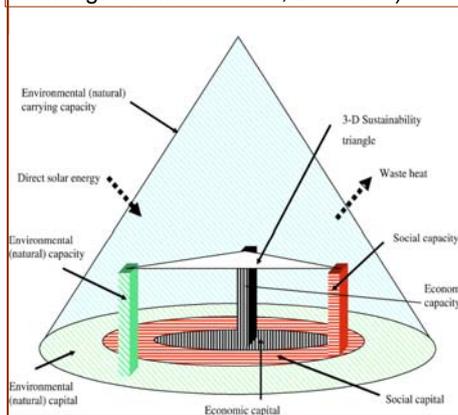


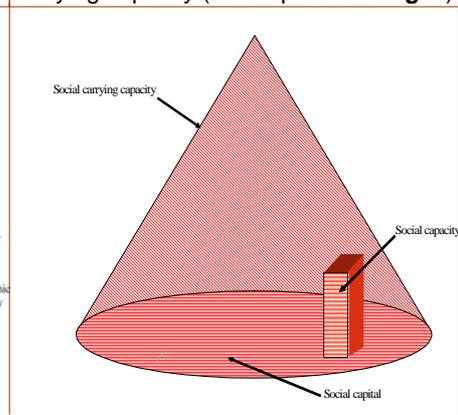
**Introduction.** In order to contribute to basic issues for the further development of a coherent theory and practical implementation of 'socially sustainable economic degrowth', the paper aims to provide a more systematic and consistent view on 'social capital', 'social capacity' and 'social carrying capacity' under the roof of the environmental carrying capacity with regard to sustainable development in the sense of 3-D Sustainability (fig. 1 and fig. 2) such as described by Mauerhofer (2008).

**Methods.** Therefore, based on an in-depth literature review especially the relationship between social capital and human capital are assessed in more detail, the overlap between the social capacity concept and the capability approach (Sen 1987, 1999) are closer discussed and the use and meaning of social carrying capacity in science and practice is more intensively explored.

**Figure 1:** 3-D Sustainability (adapted from Fig. 1 in Mauerhofer, 2008:498)



**Figure 2:** Social capital, capacity and carrying capacity (developed from Fig. 1)



**Table 1:** Comparison of aspects of social and human capital in social science definitions

Scope	Social capital	Human capital
<b>Quantitative scope</b>	Mainly addressing more than one individual	Mainly addressing one individual
<b>Qualitative scope</b>	Mainly addressing stocks of and flows between individuals/groups	Mainly addressing stocks of and flows within one individual

## Major results

### 1. Social capital and human capital in social science

The analysis shows

- clear and wide overlaps exist (table 1) and
- that the distinction is - especially with regard to inherited personal characteristics - rather of scientific interest than of practical usefulness in the discussion on degrowth.

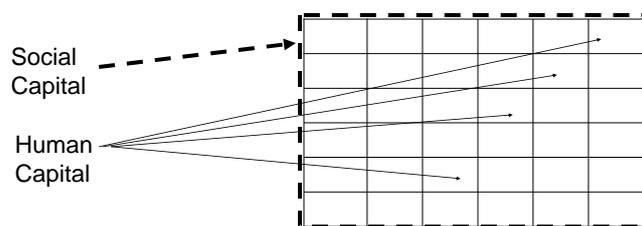
### 2. Social capital, human capital and its relationship

1. Human capital should be therefore identified in the Sustainability and degrowth discussion rather as multi-sub-section of social capital (see fig. 3).

2. Social capital

- can be then seen as a type of stock at a certain time and
- it can be absorptive (such as a sink of frustration) or enabling (such as source of joy) and
- It has to be quantitatively and qualitatively defined through
  - an adequate number of individuals or an individual alone and
  - genetically predetermined or other measurements, skills and interests.

**Fig. 3:** Relationship between Social Capital and Human Capital



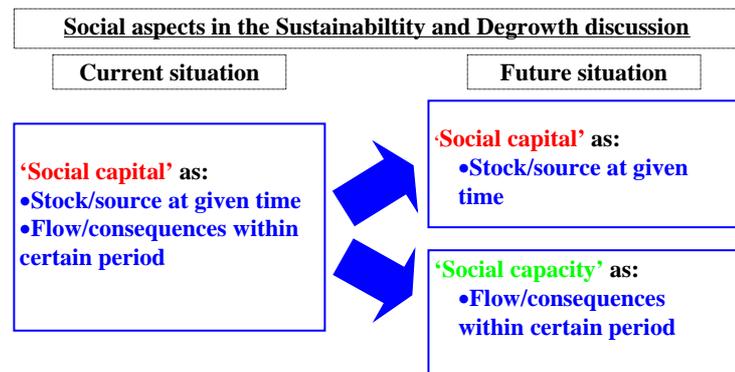
### 3. Social capital (including human capital) and social capacity

1. Social capacity is then rather the flow from the Social Capital (see also e.g. Woolcock, 2001; Robinson et al., 2002)

2. Social Capacity:

- describes flows/consequences from Social Capital during a certain period (see fig. 4)
- stays within the social and environmental carrying capacity (Mauerhofer, 2008)

**Fig. 4:** Current and future situation of Social capital and capacity



### 4. Social capacity and Capability Approach (Sen, 1987 and 1999)

a) Main weakness of the Capability Approach:

- Too individualistic concept (Comin, 2008)

b) Main overlap of Capability Approach with Social Capacity concept

- meaning in different languages is closely connected
- both deal widely with the sustainable development of the source 'social capital'

### 5. Social carrying capacity

a) Close to a definition of ecological carrying capacity brought forward by Del Monte-Luna et al. (2004) the Social Carrying Capacity can be defined as

*'the limit of growth or development of each and all hierarchical levels of human or social integration within a certain geographical range, shaped by unilateral, multilateral and/or interdependent processes within an individual and between individuals or groups of individuals.'*

In bold a definition of the social capacity is already included.

b) Perspectives of the term 'social carrying capacity' (see table 2)

**Table 2:** Perspectives of the term 'social carrying capacity'

Status quo:	Future relevance e.g.:
<ul style="list-style-type: none"> <li>• Hardly defined anywhere</li> <li>• Hardly used in sustainability and degrowth science, except e.g. in:</li> <li>• Protected area visitor management (visitors <math>\leftrightarrow</math> visitors)</li> <li>• Traffic and water planning with regard to 'urban or human carrying capacity'</li> </ul>	<ul style="list-style-type: none"> <li>• Future limits to population growth</li> <li>• Trade off's between population growth and per capita consumption</li> <li>• Research in social riots with regard to equality issues (income distribution, goods allocation etc.)</li> <li>• Technical overload (and related resource questions)</li> </ul>