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Content versus Structure: What makes a good Life?

A Study on the Dimensionality of Life Satisfaction and the Effects of different Social Capital Properties.

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Abstract: This article aims to contribute to the topic of life satisfaction by doing an exploratory analysis, due to a lack of a general scale of life satisfaction. In this study, life satisfaction will be explained by the social capital properties: content and structure, through multiple dimensions of life satisfaction. Two research problems are at issue concerning: (1) the dimensionality of life satisfaction and (2) the explanatory value of social capital properties on life satisfaction. Content of social capital is operationalized by using an instrument that measures general social capital: the resource generator. Structural social capital is measured by density and size of social networks. Data is retrieved from *The Survey on the Social Networks of the Dutch.* The results indicate that satisfaction is a multidimensional concept with three dimensions described as intimacy satisfaction, work and off-time satisfaction and residence satisfaction. Finally, it is found that both structure- and content properties of social capital have little power explaining life satisfaction. Considering the accountability of both social capital properties, from this research it can be concluded that social capital is not a major factor in explaining life satisfaction.

Keywords: life satisfaction; social capital; content and structure.

INTRODUCTION

According to *"pre materialistic"* philosophers such as Jeremy Bentham, the presence of pleasure and the absence of pain are the defining characteristics of a good life (Diener, 2000). Now, that we are entering a "post materialistic" era, concerning issues of quality of life beyond material prosperity, researchers have been wondering what makes a good life nowadays (Diener, 2000). Clearly, the defining characteristics of the concept of satisfaction are more complex. To find out why some people are more satisfied than others, gaining understanding of the process of satisfaction is required. A broader recognition of the central role of individual goals and coping efforts in the establishment of satisfaction is of relevance, as it represents part of the greater construct of well-being (Diener, Emmons, Larsen, & Griffin, 1985). Based on knowledge of the establishment of satisfaction, social policies can be developed and implemented to increase satisfaction on societal level. This article examines the defining characteristics of the establishment of satisfaction through a lens of social capital. The concept of satisfaction has been a growing focal point in research (Flap & Völker, 2001). The field increased in popularity because of the development of new scientific methods to study satisfaction (Flap & Völker, 2001). Satisfaction has been defined in different ways according to the broad range of various perspectives that are used to address it. However, presently there is no coherent theory of the dimensionality of life satisfaction. It is found that satisfaction establishes by achieving goals and that these goals could be achieved through the use of social capital (Flap & Völker, 2001). Prior research on satisfaction emphasized the importance of viewing the individual in a social context (Pavot & Diener, 1993).

This study will view at individual social context by means of social capital. In literature, there are various distinctions in social capital (Helliwel & Putnam, 1995; Bjørnskov, 2006; Borgatti, Jones, Everett, 1998; Van der Gaag & Snijders, 2004, 2005; Lin, 2008). In these studies, different definitions and measurements of the concept of social capital were used to address it (Van der Gaag & Snijders 2005). Within social capital, two basic approaches can be distinguished to define social capital. One approach focuses on the structure of a social network while the other approach defines social capital in terms of the content of the network (Flap & Völker, 2001). Prior research on the relation between social capital and life satisfaction is carried out by using different concepts and measures of both social capital and life satisfaction. In spite earlier conducted research, questions concerning the explanation of life satisfaction still remain. *To what extent is there a distinction in the effects of different social capital properties in explaining life satisfaction?*

In this research, classic network structure methods, as well as more recently developed network content methods, will be used to measure social capital. This study distinguishes itself from previous research by focusing on the effects of different social capital properties on multiple dimensions of life satisfaction. Individual social context will be measured by social capital data on alter-ego relationships

and a broad range of resources. Data is retrieved from the "Survey on Social Networks of the Dutch" from the second wave in 2007. To find out how social capital relates to life satisfaction, a deeper look into the concept of life satisfaction is necessary. This paper discusses the concept of life satisfaction and explores the various domains in the concept and how the domains relate to the single unit life satisfaction measure. In addition, it examines the effects of different social capital measures on the satisfaction domains that will result from the analysis. Regarding the analyses, the research will conclude on the explanatory strength of social capital, in which the social capital properties content and structure are differentiated.

THEORY

Prior research has been done on the relation between social capital and life satisfaction by using many different concepts and measures of both social capital and life satisfaction. Life satisfaction can be defined as the cognitive part of subjective well-being which refers to a cognitive judgmental process (Diener, 2000). The judgmental process of satisfaction is depending on a comparison of one's circumstance which is thought to be an appropriate standard that the individual sets for itself (Diener, *et al.,* 1985). Research by Cummins (1996) explored whether there is a difference between measuring life satisfaction with only one single question and measuring it as a multidimensional construct. The single item measure is constructed by the question "How do you feel about your life as a whole?". Cummins created the Comprehensive Quality of Life Scale (Cummins 1993, in Cummins 1996 p.307) which measured life satisfaction in seven domains: (1) material well- being, (2) health, (3) productivity, (4) intimacy, (5) safety, (6) community, (7) emotional well- being. The Comprehensive Quality of Life Scale was used to examine whether a hierarchy of domain satisfaction could be established and whether the hierarchy would differ between groups reporting high or low levels of life satisfaction. The domain of intimacy had a higher rating of satisfaction than all the other dimensions; the domain includes social and family connections. This indicates that there is a hierarchy of domains within satisfaction. It was concluded that the single item and the seven domains of Comprehensive Quality of Life Scale both can be used to measure the concept life satisfaction (Cummins 1993, in: Cummins 1996 p.307).

There are indications that part of the variation in life satisfaction is related to social capital (Putnam, 1994; Helliwell, 2003; Helliwell & Putnam, 1995, 2004; Bjørnskov, 2003, 2005). One approach to define social capital focuses on the structure of the network. For measuring social capital, a distinction between different aspects of a person's network is made in size, density and heterogeneity (Borgatti *et al*. 1998). The size of someone's network refers to the number of alters that an ego is directly connected to. The density of a network is related to the proportion of pairs of alters that are connected to each other. The heterogeneity of a network is related to the variety of alters with respect to relevant dimensions such as sex, age, race and occupation. In the research by Flap and Völker (2001), density was used as network

structure to measure social capital. This was calculated by dividing the total number of ties by the number of possible ties. Much emphasis in sociological research has been put on social network structures, but less on the resources that could be accessed through the social network (Van der Gaag & Snijders, 2005). According to Lin (2008), social capital is embedded with resources. These resources are defined as the content of the network that could help in goal attainment (Borgatti *et al.*, 1998; Van der Gaag & Snijders, 2004).

According to Van der Gaag & Snijders (2004), there has been a problem in literature regarding the definition of social capital. Because of several definition and measures, they found that there is a lack of comparable measurements of social capital. Measurements of social capital in prior research only concerned resources in very specific life domains or on specific populations (Van der Gaag & Snijders, 2004). As a solution, they proposed a new measure for general social capital. They defined social capital as a multidimensional construct. They agree on Lin's idea that social capital should be distinguished in the *access* and *use* of social capital. Following Lin's (2008) idea that the mobilization of social capital is a process, the *use* perspective offers the opportunity for retrospective studies of the mobilization of social capital. However, prospective application involves additional contextual factors that affect the measurement. For this reason, Van der Gaag and Snijders (2005) merely measure the potential *access* of the social capital mobilization. As Van der Gaag and Snijders (2005) argue in their article, social capital measurements refer to different personal resource collections of network members. This argument is explained by the social production function theory by Ormel, Lindenberg, Steverink, and Verbrugge (1999) which orders goals to be universally pursued by individuals. Individuals appear to distinguish six cognitive domains in goal attainment: (1) private productive activities housekeeping; child raising, (2) personal relationship, (3) private discretional or recreational activities, (4) public productive activities; paid work, voluntary work, schooling, (5) public relationships and (6) public non-institutionalised interactions. Of all six domains, the first five named refer to social capital. Based on these five domains, a fixed number of items were used to construct a resource generator, which came close to measuring general social capital (Van der Gaag & Snijders, 2004; 2005). In the study, 37 items were included in a Mokken Scale Analysis (MSP). In line with their expectation on the multidimensionality of social capital, the scale had a poor homogeneity value. An exploratory procedure resulted in four distinct domains with meaningful content. The first domain is *prestige and education* social capital; this mainly includes resources for instrumental actions. The second domain; *political and financial skill* social capital considers political party membership in someone's network, information about financial matters and knowledge about governmental regulations. The third is *personal skill* social capital, this refers to activities that are related to communication for example speaking languages and reading journals. The fourth is *personal support* social capital, which includes both expressive and instrumental actions. The instrumental action

included power, wealth and reputation as return. The expressive action included, among other things, life satisfaction as a return (Lin, 2008). Continuity in someone's life is maintained through personal support.

Researchers (Helliwell, 2003; Bjørnskov, 2003) note that social capital, as defined by Putnam *et al.* (1994) as trust and norms in a network, is an important source of life satisfaction. In a cross-country analysis, Bjørnskov (2005) explained that social capital is positively related with life satisfaction. Countries with more honest behavior in general, feature higher levels of social capital, a factor that affects life satisfaction positively. In the study, social capital is measured by generalized trust, civic participations and perceived corruption. Another study (Helliwell & Putnam, 2004) on exploring the social context of subjective evaluations including well-being, social capital is found to have a significant effect. It confirms that social capital is strongly linked with subjective well-being through multiple independent variables e.g. friends and neighbors, workplace ties, civic engagement, trustworthiness and trust. All variables appear to be strongly and independently related to life satisfaction (Helliwell & Putnam, 2004).

In a study from 2003 by Helliwell on direct and indirect linkages between social capital and well-being, the effects of social capital that flow through health outcomes to well-being are included. Research from Kawachi, Bruce, Kennedy and Glass (1999) has found that socially isolated people are at increased risk of poor health outcome because they have a limited access to resources, including instrumental aid, information, and emotional support. Furthermore they found that social capital can influence health by promoting more rapid diffusion of information. Also, social networks can increase the chance that healthy norms and behaviors are adopted. Social networks exert social control over deviant health-related behavior. It is found that these behaviors have a stronger influence in communities in which people know each other and trust each other. Health and social capital are found to be significantly related to one another. This finding is supported by earlier research (Palmore & Luikart, 1972) that found a clear relation between self-rated health and life satisfaction. They found a strong correlation; health correlated twice as strong as other variables on life satisfaction and accounted for two third of the explained variance in life satisfaction.

Other research examined the relation between social capital and work satisfaction (Requena, 2003). Social capital was defined as the set of cooperative relations between social actors that facilitate solutions to collective action problems. The concept was measured by trust, social relations, commitment, communication and influence. To investigate the relation between social capital and work satisfaction, they used the model of Lowe and Schellenberg (2001, in: Requena, 2003, p.335). The model links social capital with the level of satisfaction and well-being channeled by status of work. The amount of social capital is affected by personal characteristics and workplace variables, and social capital affects the degree of job satisfaction and quality of life at work. The model states that personal characteristics and work environment influence the level of social capital. Social capital affects success at work and subsequently

satisfaction and well-being. The personal well-being at work has again a positive effect on social capital which, in this way, increases the social capital of the worker. It is concluded that more social capital results in greater levels of satisfaction and quality of life at work. This implies that the effects of social capital on satisfaction are reciprocal.

To examine the effects of social capital on life satisfaction, it is important to have a clearly defined concept. In measuring life satisfaction, terms such as subjective well-being, happiness and life satisfaction are sometimes interchangeably used in articles when referring to either one of the concepts. According to previous research, life satisfaction is either a component of subjective well-being or related to subjective well-being, as well as happiness and self-esteem (Diener *et al.*, 1985; Pinquart & Sörensen, 2000). Not only the conceptualization of life satisfaction is proven to be a difficulty, subsequently measuring life satisfaction is not simple as well. According to a study by Bjørnskov, Dreher and Fischer (2008), there is a gap in the literature when it comes to the importance of measuring life satisfaction correctly. Though life satisfaction is a broadly measured concept, it still lacks a leading perspective regarding a clearly defined set of indicators.

The aim of this research is to fill this gap in the life satisfaction measurement. To discover what defines life satisfaction, this study will investigate general dimensions of life satisfaction and in addition compare the effect of social capital with both the measures of the various domains of satisfaction and the single item satisfaction measure. Because of a lacking perspective regarding the research field of life satisfaction, the importance of this research lies in the contribution to uncover the structure of the concept and to construct a clearly defined measurement of general life satisfaction. Since there is little consensus on the dimensionality of life satisfaction, this research will do an exploratory analysis regarding the dimensionality of life satisfaction. To investigate the relationship between social capital and life satisfaction, both the structure and content approach of social capital will be used.

Hypotheses

There is strong evidence for the satisfaction domains work, intimacy and health. Based on prior research, *we expect the exploratory analysis to result in at least these three dimensions* (H1). See table 1 for a schematic overview of the expected strength and direction of the effect per social capital measure on life satisfaction.

Table 1.
Schematic overview of the hypotheses.

	Domains Social Capital	Domains Satisfaction			General life satisfaction
H1		Health	Work	Intimacy	
H2	**Structure**				
H2a	Size	+	+	+	+
H2b	Density	+	-*	+	+
H3	**Content**				
H3a	Prestige and education	+	++	+	+
H3b	Political and financial skill	+	+	+	+
H3c	Personal skill social capital	+	+	++	+
H3d	Personal support social capital	++	+	++	++

* H2b.I.

Following the theory regarding social capital structure, it is expected to have predominantly a positive effect. Network size is expected to be positively associated with life satisfaction because the more ties someone has in a network, the greater the chance that one of them has the needed resources. We expect *the effect of the network size to be positive on all life satisfaction dimensions* (H2a). A network with many social ties connected to each other, is important for aspects related to social approval. This can be expected to consist of strong ties. The density of a network is expected to increase satisfaction more than an open network. Therefore, we expect that *density has a positive effect on general life satisfaction* (H2b). On the other hand, a person with an open network can get access to more information. An open network is a valuable resource in competitive situations, for example in the working place. To attain more material rewards such as income or career prospects, it is more profitable to have an open network than a closed network (Flap & Völker, 2001). We therefore expect that the less dense the network of a person is, the more satisfied this person will be with his work. In accordance with the direction of the other hypotheses, we formulate our expectation in the opposite direction, meaning that *density will have a negative effect on work satisfaction* (H2b.I). The domain intimacy includes social and family connections which among other things kin ties are. We therefore expect that *a dense network will have a positive effect on the satisfaction in the intimacy domain (*H2b). It is shown that a cohesive network has a positive influence on health (Kawachi *et al.,* 1999). This network can influence health by promoting more rapid diffusion of health information. Also cohesive networks increase the chance that healthy norms and behaviors are adopted which will better health. An increase of health will lead to more satisfaction (Palmore & Luikart, 1972). Therefore we expect *density to have a positive effect on the domain health* (H2b).

The mechanism that links social capital with satisfaction is the achievement of particular goals. We expect all domains of contentual social capital to have a positive effect on satisfaction. Departing from

the idea that social capital is a goal specific good, and not an all-purpose one, we expect that some domains will have a stronger positive effect on general life- and work satisfaction than others. Only specific forms of social capital are contributory to attainment of a particular goal, which will result in more satisfaction in that particular domain. Resource items of the domain prestige and education related social capital are accessed through both acquaintances and friends. According to Van der Gaag & Snijders (2005) this dimension could be a strong predictor of social mobility and job success. *We expect the domain prestige and education related social capital to have a stronger positive effect on work satisfaction than on intimacy- and health satisfaction* (H3a). The domain political and financial skill contains items referring to network member's political party membership, and their knowledge about governmental regulations and financial matters. Because there is no direct link in literature found between political and financial skills and one of the domains we expect that *political and financial skills will have equally positive effects on all the domains of satisfaction* (H3b). The personal skills social capital dimension consists of communication related activities for example reading journals and speaking foreign languages. This domain is characterized by the highest proportion of kin ties. Because of the high proportion of kin ties in this domain, we expect that *personal skill social capital has a stronger positive effect on intimacy satisfaction than on work- and health satisfaction* (H3c). Personal support social capital involves maintaining continuity in one's personal life. The resources in this domain can be associated with actions that involve both instrumental and expressive components; giving advice or help with moving house. Personal support is generally accessed through stronger ties. Because strong ties and receiving personal support are more important for both intimacy satisfaction and health satisfaction than for work satisfaction, *we expect a more positive effect on the dimensions intimacy satisfaction and health satisfaction than on the dimension work satisfaction* (H3d).

The effect of the various contentual social capital domains on the single item satisfaction measure is a grey area. We expect contentual social capital to have a positive effect on the measurement; however, the strength of the effect in comparison to the multiple dimensions of satisfaction is unclear. Following the idea that life satisfaction is hierarchical, in which intimacy satisfaction weighs heavier than other dimensions, and that personal support specifically affects intimacy, *we expect personal support to have a relative strong effect on general life satisfaction* (H3d).

Both structural- and contentual social capital are expected to have effects on life satisfaction in varying degrees. There is no evidence from prior research that social capital is negatively correlated to life satisfaction, but instead either marginal or positive, with the exception of density on work.

DATA & METHODS

Sample

For the analysis, we will use data from the second wave of *The Survey on the Social Networks of the Dutch* (SSND2). The SSND is a panel survey in which besides information on the respondent, extensive information about the social network is gathered (Mollenhorst, Völker & Flap, 2011). In 2000, the first wave of this panel study was completed (SSND1). This wave includes information of 1007 respondents from The Netherlands of between 18 and 65 years of age. A stratified random sample was used to select 40 out of 500 municipalities, covering all provinces. Four neighborhoods within each municipality were randomly selected by using the postal code system. Subsequently, 25 addresses were selected at random in each neighborhood. The first wave had a response rate of 40%. Data including 1007 respondents from 161 neighborhoods was collected. Trained interviewers conducted surveys in the respondents' home. The interview lasted 90 minutes on average. The second wave, a follow-up study, was completed seven years after the first wave in 2007. From the original 2000 study, 70% of all respondents were willing to participate in the second wave, resulting in a sample of 604 respondents, at that time between 26 and 72 years of age. With a drop-out rate of 30% of the initial sample; men, married people, older people and the higher educated were somewhat overrepresented in the second wave. To compensate for the dropping out, the SSND2 included an additional sample consisting of 394 new respondents.

For this research, the SSND2 will be used since respondents from this wave were asked to answer questions on specific domains of life satisfaction and general life satisfaction. In contrast to the second wave, the first wave did not include questions on life satisfaction yet.

Satisfaction variables

For measuring life satisfaction, 10 items concerning satisfaction with a specific domain will be included in the analysis. The items regarding life satisfaction are measured on a Likert scale from 1 to 7 with 1 meaning least satisfied and 7 most satisfied. Unfortunately, data does not permit us to include an item measuring health satisfaction since the survey does not include an item concerning health satisfaction. However, there is an item measuring health satisfaction indirect. This item is about perceived health; therefore we will include this item as well. Reason for this is that we assume that people with a bad perceived health are less satisfied with their health and those with a good perceived health are more satisfied with their health. This item is measured on a scale from 1 to 7 coded the same way as the direct satisfaction measures. For an overview of the questions concerning life satisfaction see the appendix.

Social capital structure variables

The names of alters were gathered through name generating (NG) questions. The names of the alters were asked in order to be clear about when ego's referred to the same person over different questions. These items were placed in a separate dataset including name generating and name interpreting questions on alters. Respondents from the original sample were asked NG questions referring to alters spoken about in the first wave and the supplemented sample was not. To keep the maximum network size equal over the original and the supplemented sample, we will use the remaining 13 NG questions that were included in both samples. Respondents were allowed to give multiple names at some NG questions. For an overview of the NG questions, see the appendix. The variable network size was constructed by counting all names called by the same respondent. The sample permitted respondents to give 30 different names.

Density will be constructed from two NG questions about (1) whom you like to go out with and (2) whom you discuss important personal matters with. It was asked in which way, the persons who were named, interact with each other. The questions contained five answer categories, scaled from 1 to 5. Answer categories were recoded into a scale from 0 to 1, for an overview of the coding of each answer category see the appendix. A large proportion indicates a denser network while a small proportion indicates a less dense network. Respondents who did not answer the questions were left out of the analysis. Also the answer category that persons could avoid each other will be left out of the analysis because it does not give information about to what extent persons know each other but about the relationship they have which is not a measure of density. Density was constructed as the mean of all the ties from the two NG questions.

Social capital content variables

The resource generator was included in the questionnaire as an instrument to measure social capital. The resource generator makes a distinction between four different dimensions of social capital. Not all the 23 items that were used by Van der Gaag and Snijders (2005) for the resource generator in the SSND1 were included in the SSND2. The items that were not included are replaced by additional items that were available in SSND2. For an overview of all the items, see the appendix. For prestige and education related social capital we added the items about whether someone knows a person who can give medical advice and the item whether a person knows someone who has the possibility to hire someone for a job sometimes. Both of the items indicate that when a respondent knows someone who can give medical advice or can hire someone for a job, they know someone who has 'high' prestige. All the items of the dimension political and financial skill social capital were included in the SSND2. For the dimension personal skill social capital, we added whether you know someone who can play an instrument, can repair

a bike or car, and can help you repair household appliances. The items that were included concern the skills of people from the alter network. The item about whether you know someone who could help you as a babysitter will be included in the dimension personal support social capital.

For every item that was included in the survey, respondents were asked whether their resource was a family member, a friend, an acquaintance or multiple of the given options. They had the possibility to answer that they did not have the respective resource in their network. Respondents who did not give an answer to the questions were excluded from the analysis. Variables were constructed by taking the sum of all the available resources per item. Per dimension of social capital, a reliability analysis was conducted. Prestige and education related social capital had a sufficiently high Cronbach's alpha (α=.743). Political and financial skills social capital had a slightly insufficient Cronbach's alpha (α = .577). Personal skills social capital appeared to have a slightly insufficient Cronbach's alpha as well (α = .592). Personal support social capital had a sufficiently high Cronbach's alpha (α = .628). There has to be a clear distinction between the four dimensions of social capital but within the dimensions strong correlations are not necessary since the sum of all the items will be used to construct each dimension of social capital. Because of this reason, the reliability of the social capital dimensions is presumed to be sufficiently high to create scales of the four dimensions.

Control variables

In the analysis we will control for the variables sex, age, income and education. Prior research has shown that the relationship between satisfaction and age is a U-curve pattern (Appleton & Song, 2008). Both younger and older people tend to be more satisfied than the middle aged. The turning point when aging switches from causing dissatisfaction changes into satisfaction, is the age of 40, therefore age will be added as a quadratic variable. Both education and income have a positive effect on satisfaction. They both contribute to satisfaction by improving quality of life for by for instance good housing conditions and the use of commercial leisure activities (Pinquart & Sörensen, 2000). Sex was recoded into a dummy variable with categories; man (0) and woman (1). Age was measured in years. Education was recoded into years of education. For decisions regarding recoding of level of education into years of education, see the appendix. The answer category *don't know* will be left out of the analysis. Monthly income was measured on a 17 point scale in classes of 250. The variable was recoded into the mean of each class, allowing the variable to be included as an interval scale in the analyses.

Table 2.
Descriptive statistics

	Minimum	Maximum	Mean	SD
Structure				
Size	3.00	31.00	13.58	5.23
Density	.00	1.00	.78	.28
Social Capital				
Personal support	1.00	12.00	4.91	2.18
Personal skill	.00	12.00	3.76	2.40
Political financial	.00	8.00	2.57	1.62
Educational prestige	.00	17.00	5.47	3.22
Control				
Income	125	4125	1804.26	5.38
Age	18	88	49.55	12.82
Age2	324	7744	2619.53	1329.48
Years of education	12	17	15.27	2.01
Female	0	1	.48	
Valid N = 417				

Analyses

To test whether we can distinguish several domains of satisfaction a factor analysis will be conducted. The resulting factors will be used to create a sensible scale of each life satisfaction domain. The scales will be exposed to a reliability analysis. To get some insights in the hierarchical structure of the construct life satisfaction we will run a Pearson correlation analysis. Subsequently, regression analyses will be performed to test the effects of different social capital properties on the constructed life satisfaction scales as well as the single item life satisfaction measure. Per dimension of life satisfaction a regression will be conducted resulting in four different models. The first model (M1) represents baseline model with only the control variables predicting the dependent variable. The second model (M2) represents the effects of the social capital' structure variables on the dependent variable. The third model (M3) represents the effects of the contentual social capital on the dependent variable. The fourth model (M4) represents the total effects of both social capital measures controlled for each other. This way, it can be concluded whether the effects explain the same part of the variance. Each dimension will be represented in a separate table with all four models. By making four models, we will be able to conclude on the quality of the predicting social capital variables by comparing the explained variance in the models with each other, the null model and the complete model.

RESULTS

Factor analysis

Because there is yet little consensus on the dimensions of life satisfaction, we conducted an exploratory factor analysis (EFA) to identify the underlying relationships between the 10 life satisfaction items measured on a 7 point Likert scale. Since we aim to develop a scale of the latent variables, we used the principal axis factoring (PAF) method to examine whether, and to what extent, life satisfaction is multidimensional. As a rotation method, we used an oblique rotation with oblimin procedure because this method permits the factors to be correlated. This particular method is chosen because it provides solutions with a more simple structure (Costello & Osborne, 2011). As a reliability check for each scale, we ran a Cronbach's α reliability analysis.

Table 3.
Pattern and structure matrix from PAF for 10 satisfaction items.

Satisfaction	Pattern Matrix			Structure matrix		
	Factor			Factor		
	1	2	3	1	2	3
Dwelling	.737			**.737**		.409
Neighborhood	.679			**.669**		.320
Relations with friends and acquaintances	.510	.357		.601	**.535**	
Relation with own children		.735			**.720**	
Relation with partner		.661			**.632**	
Relation with family		.410			**.453**	
Off-time				.360		**.320**
Work			.616			**.586**
Finance			.663	.419		**.713**
Health						
Eigenvalues	2.916	1.396	1.073			

Rotation Method: Oblimin with Kaiser Normalization.
Note. The bold loadings are included in the corresponding factor.

The exploratory factor analysis shows that there are three factors, based on the Eigenvalues (>1) criteria. The results of the oblique rotation of the solution are shown in table 3. Loadings lower than 0.30 were excluded from the table. The analysis yielded a three-factor solution with a simple structure.

In the first factor, respectively three and five items load higher than .3 in the pattern- and structure matrix. In the table, it is shown that 'dwelling' and 'neighborhood' both load onto the same factor. From theory, it makes sense that these items are part of the same latent variable. However, 'relationships with friends', 'off- time' and 'finance' are less obvious to have a common purpose. Because of this reason, we decided to only include the two items that score highest on the factor. To capture 'neighborhood' and

'dwelling' in a meaningful concept, the factor is labeled as *residence satisfaction*. The reliability analysis resulted in a sufficiently high Cronbach's alpha (α = .712).

The second factor includes four items that load higher than .3 in both the pattern- and structure matrix. All four items concern the satisfaction with social relationships. This factor corresponds with the theoretically expected life satisfaction domain *intimacy*. The item 'Relations with friends and acquaintances' loaded both on the first and second factor. Since intimacy satisfaction concerns social relationships, the item is scaled under the domain intimacy satisfaction. The reliability analysis resulted in a sufficiently high Cronbach's alpha (α = .658).

In the pattern- and structure matrix respectively two and five items loaded onto the third factor. The structure does not completely correspond with the expected work satisfaction dimension; however, both work and finance are covered in this factor. The items 'dwelling' and 'neighborhood' that both load onto the first and third factor are already scaled under *residence*. Besides their theoretically meaningful interpretation, the loadings were drastically lower in the third factor. Because of these reasons, the items 'dwelling' and 'neighborhood' will not be included in the third factor. There are three items left that loaded higher than .3 in the third factor; 'Off-time', 'Work' and 'Finance'. These items make sense to be part of a common underlying dimension. To scale the three items in one dimension, we assume that those who are satisfied with work and finance worry less about their work and finance and therefor enjoy their off-time more and will be more satisfied with their off-time as well. The results of the Cronbach's α reliability analysis of this scale is slightly poor although taken as sufficient because of the exploratory nature of the analysis (α = .545). Omitting the item 'off- time' does not increase the reliability of the scale considerably much (α = .578), therefore we kept the item in the scale.

As shown in the table, the item 'health' does not load higher than .3 on any of the factors and does not have a sufficiently high Eigenvalue to be a separate factor. Because of this weak share in the dimensionality of life satisfaction, the item 'health' will be not included in the analyses.

To examine to what extent life satisfaction is hierarchical as mentioned in previous research, we conducted a Pearson correlation with the life satisfaction dimensions and the general life satisfaction single item measure. Since we expect all dimensions to be positively associated with the single item measure we did a one-tailed test. As the results presented in table 3 show, each dimension significantly correlates with the single item measure. The intimacy satisfaction does not correlate highest with the single item measure as found in previous research (Cummins 1993, in: Cummins 1996 p.307). The dimension which correlates highest with the single item measure is work and off- time satisfaction ($r=.381$, $n=417$, $p<.001$). Residence satisfaction correlates least with the single item satisfaction ($r=.234$, $n=417$, $p<.001$) however marginally less than intimacy satisfaction ($r=.267$, $n=417$, $p<.001$). The

correlation indices indicate that there is no clear hierarchical structure in the single item satisfaction measure.

Table 4.
Correlation coefficients life satisfaction measures

	Work/off-time	Residence	Intimacy	Single
Work/off-time				
Residence	.355***			
Intimacy	.325***	.219***		
Single	**.361*** **	**.234*** **	**.267*** **	

***p<.001 at the 0.01 level (1-tailed).
N=417

Regression analyses

To investigate how social capital properties within both structural- and contentual social capital affect the three constructed life satisfaction domains and the single life satisfaction measure we conducted a linear regression analysis. Whilst doing the analyses we controlled each analysis for income, age, age^2, education and sex. Table 5, 6, 7 and 8 present the results of the regression analyses.

Intimacy satisfaction

Table 5 shows the effects of the different social capital measures on the intimacy domain. It is shown that size (β= .164, t (416) = 3.410, p=.001) and density (β=.153, t (416) =3.252, p=.001) both have significant effects on the intimacy satisfaction. This indicates that people with a bigger network and people with a denser network are more satisfied with their family, friends, partner, and children. After controlling for contentual social capital in model 4, we can see that both size (β= .154, t (416) = 3.230, p<.001) and density (β= .147, t (416) = 3.174, p=.001) are still significant. This indicates that the effects of size and density on intimacy satisfaction do not overlap with the contentual variables of social capital. Model 3 shows that personal support has a positive significant effect on intimacy satisfaction (β= .246, t (416) = 4.139, p<.001). After controlling for social capital' structure variables as shown in model 4, this effect of personal support on intimacy satisfaction is still significant (β= .235, t (416) = 4.035, p<.001). This indicates that personal support explains a different part of the variance in the intimacy domain than social capital' structure variables do.

Model 2 explains 17.7 % (R^2=.177, F-Change (2, 409) =11.139, p<.001) of the variance in the intimacy domain. Model 1 explains 13.3% (R^2= 0.133, F-Change (5, 411) = 12,559, p<.001) of the variance. A higher percentage of variance is explained in model 2 indicating that social capital' structure variables explain 4.4% more of the variance than only control variables (M1). Model 3 explains 17.1%

(R^2=.171, F-Change (4, 407) = 4,749, p=.001) of the variance. Contentual social capital variables thus explain 3.8% more of the variance in the intimacy domain than control variables.

Table 5.
Standardized regression coefficients of social capital measures on intimacy satisfaction

	M1		M2		M3		M4	
Variable	β	SE	β	SE	β	SE	β	SE
Structure								
Size			.164***	.050			.154**	.049
Density			.153**	.913			.147**	.899
Content								
Skill					-.049	.138	-.052	.135
Support					.246***	.133	.235***	.130
Prestige					-.054	.108	-.063	.106
Political/ financial					.019	.202	.015	.198
Control Variables								
Income	.111*	.000	.106*	.000	.075	.000	.076	.000
Age	.830**	.118	.732**	.119	.806**	.119	.723**	.118
Age^2	-1.106***	.001	-.998**	.001	-1.012***	.001	-.926**	.001
Education	.025	.131	.023	.132	-.013	.125	.015	.133
Female	-.050	.555	-.014	.554	-.058	.555	-.022	.555
(constant)	12.129**	3.503	8.322*	3.730	11.377**	3.583	7.740*	3.803
R2	.133		.177		.171		.211	
F change	12.559***		11.139***		4.749**		4.355**	

*p < .05. **p<.01. ***p < .001 (one-tailed).
Note. Regression coefficients of constant are unstandardized.
N=417.

Residence satisfaction

The results in model 5 show that none of the structure variables has a significant effect on residence satisfaction. Political and financial social capital appear to significantly affect residence satisfaction (β= .131, t (416) = 2.022, p=.022). The effect remains significant after controlling for structural social capital, however nearly halves in the strength after adding structure variables into the model (β=.129, t(416)= 2.003, p=.023). This indicates that part of the variance in residence satisfaction, explained by *political and financial* social capital, does overlap with the explained variance of social capital structure.

Social capital' structure variables are not significantly explaining more of the variance compared to the model 1 (R^2= .058, F-Change (2, 409) = 1.638, p=.196). Also contentual social capital variables are not significantly explaining more of the variance in the residence domain compared to the model 1 (R^2= .067, F-Change (4, 407) = 1.780, p=.132).

Table 6.
Standardized regression coefficients of social capital measures on residence satisfaction

	M1		M2		M3		M4	
Variable	β	SE	B	SE	β	SE	β	SE
Structure								
Size			.068	.017			.062	.017
Density			.062	.312			.060	.312
Content								
Skill					-.077	.047	-.078	.047
Support					.080	.045	.075	.045
Prestige					-.045	.037	-.048	.037
Political/ financial					.131*	.069	.129*	.069
Control Variables								
Income	.107*	.000	.105*	.000	.082	.000	.083	.000
Age	.698**	.039	.656*	.041	.634*	.040	.601*	.041
Age^2	-.591*	.000	-.545*	.000	-.506*	.000	-.471	.000
Education	-.063	.044	-.064	.045	-.076	.045	-.075	.046
Female	-.061	.186	-.046	.189	-.058	.188	-.043	.192
(constant)	9.800***	1.172	9.312***	1.276	10.033***	1.216	9.563***	1.318
R2	.051		.058		.067		.074	
F change	4.392**		1.638		1.780		1.432	

*p < .05. **p<.01. ***p < .001 (one-tailed).
Note. Regression coefficients of constant are unstandardized.
N=417.

Work and off- time satisfaction

Contrary to our expectations, we did not find significant effects of both structural- and contentual social capital on the work and off-time satisfaction dimension. Both social capital' structure (R^2= .085, F-Change (2, 409) = .557, p=.573) and content (R^2= .094, F change (4, 407) = 1.284, p=.276) variables do no significantly explain more of the variance compared to the null-model.

Table 7.
Standardized regression coefficients of social capital measures on work and off-time satisfaction

	M1		M2		M3		M4	
Variable	β	SE	β	SE	β	SE	β	SE
Structure								
Size			.023	.028			.014	.028
Density			.047	.514			.044	.514
Content								
Skill					-.054	.077	-.053	.077
Support					.100	.074	.098	.075
Prestige					.053	.060	.052	.061
Political/ financial					.008	.113	.008	.113
Control Variables								
Income	.160**	.000	.161**	.000	.127*	.000	.129*	.000
Age	1.258***	.065	1.263***	.067	1.214***	.065	1.230***	.067
Age^2	-1.299***	.001	-1.299***	.001	-1.214***	.001	-1.231***	.001
Education	.007	.072	.011	.074	-.014	.074	-.008	.076
Female	.029	.305	.039	.312	.016	.310	.026	.317
(constant)	8.538***	1.924	7.828***	2.101	8.860***	2.001	8.176***	2.175
R2	.082		.085		.094		.096	
F change	7.366***		.557		1.284		.432	

*p < .05. **p<.01. ***p < .001 (one-tailed).
Note. Regression coefficients of constant are unstandardized.
N=417.

Single item

As model 3 in table 8 presents, that personal skill social capital has a negative significant effect on the single item of satisfaction (β= -.112, t(416)= -1.865, p=.032). After controlling for structure variables of social capital this effect remains significant (β= -.109, t (416) = -1.806, p=.036), indicating that the more personal skill social capital someone has the less satisfied this person will be with life in general. Political and financial skill social capital has a positive significant effect on the single item of

satisfaction (β=.176, t (416) = 2.676, p=.004). When controlling for structure variables of social capital, the effect of political and financial skill social capital remains significantly positive (β= .178, t (416) = 2.704, p=.004).

It is shown that structure variables are not explaining significantly more of the variance in general life satisfaction (R^2=.021, F-Change (2, 409) = 1.054, p=.349) compared to the first model. Also social capital content variables do not significantly explain more of the variance (R^2= .038, F-Change (4, 407) = 2.334, p=.055).

Table 8.
Standardized regression coefficients of social capital measures on general life satisfaction (1 item)

	M1		M2		M3		M4	
Variable	β	SE	β	SE	β	SE	β	SE
Structure								
Size			-.051	.008			-.055	.008
Density			.056	.148			.054	.147
Content								
Skill					-.112*	.022	-.109*	.022
Support					.040	.021	.040	.021
Prestige					-.052	.017	-.049	.017
Political/ financial					.176**	.032	.178**	.032
Control Variables								
Income	.089	.000	.097	.000	.067	.000	.074	.000
Age	-.267	.019	-.159	.019	-.349	.019	-.238	.019
Age^2	.286	.000	.169	.000	.373	.000	.254	.000
Education	.002	.021	.020	.021	-.011	.021	.007	.022
Female	.128+	.088	.139+	.089	.134+	.089	.145+	.090
(constant)	6.108***	.553	5.807***	.603	6.328***	.572	6.027***	.620
R2	.016		.021		.038		.043	
F change	1.343		1.054		2.334		1.108	

*p < .05. **p<.01. ***p < .001 (one-tailed).
+p < .05. ++p<.01. +++p < .001 (two-tailed).
Note. Regression coefficients of constant are unstandardized.
N=417.

Recapitulation of the hypotheses

To get back to the table concerning all hypothesized effects in the theory, we will shortly discuss the significant results. Table 9 shows an overview of the significance and direction of the effects that resulted from the regression analyses. Table 1 in the *theory* paragraph contains the life satisfaction domain health, however, according to the factor analysis this is not an accountable dimension in life satisfaction. The factor analysis, however, uncovered another dimension, labeled as residence. As shown in table 9, only few of the hypothesized effects of social capital on life satisfaction are confirmed.

Table 9.
Schematic overview of the confirmed and rejected hypotheses.

	Domains Social Capital	Domains Satisfaction			General life satisfaction
H1		Intimacy	Residence	Work and off-time	
H2	**Structure**				
H2a	Size	+	/	/	/
H2b	Density	+	/	/	/
H3	**Content**				
H3a	Prestige and education	/	/	/	/
H3b	Political and financial skill	/	+	/	+
H3c	Personal skill social capital	/	/	/	-
H3d	Personal support social capital	+	/	/	/

CONCLUSION & DISCUSSION

Gemma Hoogendijk

This study aimed at solving two related research problems. The first concerns studying how structure- and content social network properties affect life satisfaction. However, to be able to do so, we needed to construct a scale to measure life satisfaction. Secondly, we aimed at contributing to research on the development of a scale of life satisfaction because the lack of a leading perspective regarding a clearly defined framework of the concept of life satisfaction. The results are derived from a factor analysis and several regression analyses. This study demonstrated the importance of taking into account the dimensionality when measuring life satisfaction. We found conclusive proof for the dimensionality of life satisfaction and found that it contains three dimensions: (1) intimacy satisfaction, involving satisfaction with social relationships with family, friends and acquaintances, (2) work and off-time satisfaction, involving satisfaction with work, finances and leisure time and (3) residence satisfaction, involving satisfaction with dwelling and neighborhood. We found that these dimensions correlated with the single item measure of life satisfaction, however, not particularly strong. Despite previous research that proved life satisfaction to be hierarchically structured (Cummins, 1996), we did not find large differences in the correlational values in the separate dimensions of life satisfaction and the single item measure of life satisfaction.

The answer of our main questions in this research, to what extent structure- and content social capital properties affect life satisfaction, is less obvious. Our expectation that social capital, whichever property other than density on work satisfaction, has a positive effect on life satisfaction is only weakly and partially confirmed. Our other expectation, that social capital is goal specific and that some content social capital properties would have an even stronger effect on specific dimensions of life satisfaction than other properties is almost completely unconfirmed. In the sequence of the results paragraph, the results will be discussed per satisfaction domain, to start with intimacy satisfaction. As expected, the social capital properties network size and density appear to have a positive effect on the life satisfaction dimension of intimacy. Personal support social capital was expected to have a stronger effect on intimacy satisfaction than the remaining three content social capital properties. This expectation was confirmed since personal support appeared to have a positive effect on intimacy satisfaction, contrary to the other properties, which appeared to have no effect at all. A theoretical explanation for the sole positive effect of personal support social capital might be that personal support is generally accessed through stronger ties and maintains stability in one's personal life. Contrary to our expectation, by no means did the results show that residence satisfaction is affected by social capital structure. As expected, political and financial skill social capital has a positive effect on residence; however, the effect is marginal. Work and off-time

satisfaction is not affected by social capital structure or content. General life satisfaction is not positively affected by both social capital structure properties, in spite, and even more surprisingly, the social capital content property, social skill social capital, marginally affects the single item satisfaction measure in opposite direction of what was expected. An explanation for this negative effect of personal skill social capital might be that people with more personal skill social capital might be more in need of it. People with less personal skill social capital are possibly less in need of it because they own the skills their self, and as a result, make them achieve more satisfaction in general. Our expectation that the social capital content measure, political and financial skill social capital, has a positive effect on general life satisfaction is confirmed.

Despite somewhat unexpected results, the findings indicate that both structure- and content social capital in fact do not seem to be strong predictors of one´s level of satisfaction in any of the domains nor the single item measure. Previous research on life satisfaction at cross-country level found that institutional factors strongly affect life satisfaction (Bjørnskov, *et al.,* 2008); nevertheless, within countries, individual differences in level of satisfaction continue to persist. Even though a lack of significant results, effects of social capital cannot be excluded since current research contains some unavoidable limitations concerning data and measurement.

A possible explanation why the results do not correspond with the associated theory could be found in the translation of the survey items into satisfaction. Since the survey contained questions formulated in the native language; Dutch, a translation was necessary to be able to find matching theory. However, when referring to 'satisfaction', the Dutch word '*tevredenheid'* was used in the survey. Translating the term brings some difficulties along since there is no English term that covers the exact same meaning. The word regarding 'satisfaction' has multiple meanings while the Dutch word only covers part of it. 'Tevredenheid' could literally be translated into 'in peace', but does not contain the same meaning. One part of the term *satisfaction* indicates fulfillment, however, the Dutch word used in the survey to address is does not directly indicates fulfillment. This might explain why the theory does not correspond with the, predominantly missing, effects of social capital. Another important point to stress is the measurement of life satisfaction. The data had a limited amount of items which measure different parts of general satisfaction, only ten items. While our analysis amounted three dimensions of life satisfaction, including more items might result in a larger number of dimensions of life satisfaction as found in previous research (Cummins, 1996). Dimensions might partially be dependent on the items that were used to address it.

Another limitation regarding this study is in the measurement- and amount of social capital structure measures; (1) size and (2) density. Because the scope is limited to a maximum number of 30 persons specified in the survey, and besides solely refers to specific fixed contexts, the measure might not

be a reliable indicator of the true network size. Because the data contains ego network data, network size might be biased since it only covers the network that respondents are aware of at the time of the survey while not their unaware network members. A person might, for instance, not associate a network member with a specific survey question while in fact they possess the required resource. However, on the other hand, the adding value of the concerning resource to the network is disputable when one is not aware of it. The network density measure contains some limitations as well. Data limited us to construct network density referring to only five alters from the core network. In order to maintain as much cases as possible, we allowed the network density measure to be constructed of at least one indicator of relationships between alters. Both social capital structure measures, size and density, might not cover the true network properties and therefor might not be a reliable indicators. Finally, the amount of social capital network structure is very limited. This is a problem when comparing the predictive quality of the network properties since the models do not count an equal amount of variables.

Future research is recommended to include more social capital structure measures. A social capital structure that accordingly to previous research is positively related to life satisfaction is tie strength. Tie strength is defined as the closeness of a relationship between two actors and is usually operationalized as a combination of closeness and frequency of interaction (Granovetter, 1973). More dense networks have a high proportion of strong ties compared to weak ties. Strong ties offer emotional support, are easier to access and more willing to help. Weak ties as defined by Granovetter (1973) are more likely to be a source of unique information compared to strong ties since they often have more common connections. Both strong and weak ties are found to have advantages and therefore the effects on the multiple dimensions of life satisfaction might go in different directions. Unfortunately, data did not permit us to include this measure because it drastically lowered our number of cases (leaving 140 cases).

As previously mentioned, individual differences in satisfaction remain to exist presently. Our research implicates that social capital does not account for most of the variation in satisfaction. Differences in life satisfaction could be attributed to individual ideas and attitudes towards satisfaction since the valuation is a subjective one. It is important to stress the differences that cross-country studies on life-satisfaction should take into account differences in meaning of the translation of ‘satisfaction’. Future research would be advised to better look into personal attitudes towards satisfaction to be able to specify out theory.

CONCLUSION & DISCUSSION

Nienke Dalinghaus

This research aimed to contribute to knowledge in the research field of social capital properties and life satisfaction by exposing two research problems concerning: (1) the dimensionality of life satisfaction and (2) the explanatory value of social capital properties on life satisfaction. The main purpose of the research was to examine the effects of two different social capital properties, structure and content, on multiple dimensions of life satisfaction and to find out which social capital property is most important when explaining life satisfaction. According to prior research (Cummins, 1996) life satisfaction is a multidimensional concept, which can be measured by different dimensions of satisfaction as well as a single unit. There was strong evidence that life satisfaction can be divided into three dimensions: health, work, and intimacy. In this research we found that life satisfaction is a multidimensional concept which can be distinguished into three dimensions; intimacy satisfaction, work and off- time satisfaction, residence satisfaction and also as a single unit. Furthermore, previous research (Cummins, 1996) has found that within the construct of life satisfaction, intimacy satisfaction had a higher rating of satisfaction than other dimensions. Contrary to this, we did not find a hierarchical structure of the satisfaction dimensions.

To examine the explanatory power of structural- and contentual social capital on life satisfaction, several regression analyses were performed. We expected the structure social capital variables, size and density, to have a positive effect on almost all the satisfaction dimensions except density on work satisfaction. In line with our expectation, we found a positive effect of size and density on intimacy satisfaction. Opposed to our expectations, we did not find other significant effects of structural social capital on the satisfaction dimensions.

The mechanism that links contentual social capital to life satisfaction is the achievement of particular goals. For this reason, we expected all domains of contentual social capital to have a positive effect on satisfaction. Social capital is a goal specific good, therefore only specific forms of social capital are contributory to the attainment of a particular goal, which would result in more satisfaction in particular domains of contentual social capital. We found a positive effect of personal support on intimacy satisfaction and a positive effect of political and financial skill on residence- and general life satisfaction. Although we found positive effects we did not find stronger positive effects for specific domains. Contrary to our expectation, we found a negative effect of personal skill social capital on general life satisfaction. One explanation for this observation may be, that if someone is surrounded by many people with relevant skills, the own skills may be perceived as small or insufficient, which may lead to a diminished feeling of satisfaction.

It can be concluded that part of the variance in residence satisfaction is explained by contentual social capital. Both structure- and content social capital variables explain part of the variance in intimacy satisfaction and also in general life satisfaction. In this research, work and off-time satisfaction cannot be explained by structural- or contentual social capital.

It is shown that both structural- and contentual social capital are not of major importance when explaining life satisfaction. A limitation of this research is that we cannot compare structure- and content models to each other because structural social capital and contentual social capital are two different models and therefore, cannot be nested into each other. As a result of this, we cannot conclude which social capital property, structure or content, has more power when explaining life satisfaction.

A major point which should be taken into account in this research is the definition of satisfaction. Satisfaction remains a concept that is difficult to measure because it has several definitions in different languages. In this study, we used English literature that uses the word 'satisfaction' to describe satisfaction against a dataset that uses the Dutch word 'tevredenheid' to describe satisfaction. The definitions of 'satisfaction' and 'tevredenheid' differ in meaning and therefore we must be careful drawing conclusions and generalize results of this study.

Another restriction of the current research is the operationalization of structure social capital variables. Size was constructed using 13 NG questions, this resulted in a maximum of 30 names that respondents could give. For this reason, we were not able to identify someone's entire network but only a part of the network. The network members that were identified depended on the selection of the NG questions. Using more NG questions can result in the identification of a larger part of a network, which might give a better representation of the network. Also, density was constructed by using only two NG questions (1) whom you like to go out with and (2) whom you discuss important personal matters with. Based on these two NG questions it might be possible that these network members know each other well, which will result in a dense network. A dense network based on these two questions might not be representative for the other part of the network. Also, using only these two NG questions allowed respondents to give a maximum of 10 names, therefore density is only based on a small part of someone's network which might not be representative for the density of the entire network. For this reason, it is better to use several NG questions to construct density. Besides, structure social capital was only measured using size and density. Although these are appropriate network measures, using only two might not cover the whole construct of structural social capital. To improve the construct of structural social capital, tie strength can be added. Initially, we included tie strength, this resulted in a limited amount of valid cases for the analyses. Therefore, we decided to leave tie strength out of the analyses. It might be interesting for future research to include tie strength as a measure of structure social capital. Both strong and weak ties are found to have advantages and there are two possible directions of the effect of tie strength on social

capital. Weak ties facilitate information transfer which is especially beneficial for job related factors. Also, weak ties are important for social cohesion because of the diffusion of ideas. Through weak ties, on a macro level, people are more connected with each other which is important for mutual understanding and social cohesion as a result (Helliwell & Putnam, 1995). However, weak ties do not facilitate the benefits of social bonding capital such as emotional support like strong ties do. This support is based on interdependence and commonalities of strong ties (Valenzuela, Park, & Kee, 2009). It is also argued that strong ties are more valuable than weak ties because they are more accessible and willing to help (Feld, 1981). Both weak and strong ties seem to have different effects on social capital. It might be interesting to find out in which way strong- and weak ties have effects on different dimensions of satisfaction.

Another point further research should take into account is the importance of goal specifity in social capital. Contrary to the expectations, contentual social capital did not seem to be goal specific to obtain satisfaction in particular dimensions in our research. It is needed to expand research on contentual social capital to find out whether contentual social capital is goal specific in obtaining satisfaction when using different data and other satisfaction dimensions. In addition, further research can be done in the area of the multidimensionality of satisfaction. By using data from the SSND2, three dimensions of satisfaction were found: intimacy, work and off- time and residence. Data that includes more questions on satisfaction in multiple life domains might discover other dimensions of satisfaction. In this way it can expand the research field of life satisfaction.

Finally, research should aim to find other factors that might explain life satisfaction. For instance institutional and cultural factors such as social cohesion and trust could explain differences in life satisfaction between countries. However, individual differences in satisfaction remain to exist. Since satisfaction is normative, differences in subjective satisfaction could be attributed to individual ideas and attitudes.

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APPENDIX

Satisfaction variables
Degree/ level of satisfaction with work
Degree/ level of satisfaction with financial situation
Degree/ level of satisfaction with dwelling
Degree/ level of satisfaction with neighborhood
Degree/ level of satisfaction with relations with friends and acquaintances
Degree/ level of satisfaction with relation own children
Degree/ level of satisfaction with partner relation
Degree/ level of satisfaction family
Degree/ level of satisfaction with leisure time
Assessment own health*

Answer categories: Very satisfied (7), satisfied (6), somewhat satisfied (5), not satisfied, but also not unsatisfied (4), somewhat unsatisfied (3), unsatisfied (2) and very unsatisfied (1).
* *Different answer categories:* Very good (7), good (6), somewhat good (5), not good, but also not bad (4), somewhat bad (3), bad (2) and very bad (1).

Name Generating items
If you have a problem at work. Who do you ask for advice? Respondents could answer a maximum of five persons (1)
Are there people who come to you for advice when they have problems at work? Five new persons could be mentioned in addition to the names already mentioned (2)
People do not only have cooperative relationships but sometimes people also bother each other. With whom do you quarrel sometimes, or who really bothers you sometimes? Five new persons could be mentioned in addition to the names already mentioned (3)
Who are the two colleagues with whom you interact most? Two persons could be named. or alternatively already named (4)
Who is your boss? One name (5)
Who do you ask for help if you get sick? Five new persons could be mentioned in addition to the names already mentioned (6)
If you are doing an odd job at home and need someone to help. e.g. to carry furniture or to hold a ladder. Who do you ask for help? Five new persons could be mentioned in addition to the names already mentioned (7)
Who are your direct neighbors? Which are the neighbors who live most nearby you? Two persons could be named or alternatively already named (8)
Many people visit others in their leisure time. Who do you visit? Five new persons could be mentioned in addition to the names already mentioned (9)
Do you know someone with whom you like to go out? Five new persons could be mentioned in addition to the names already mentioned (10)
With whom have you discussed important personal matters during the past six months? Five new persons could be mentioned in addition to the names already mentioned (11)

If we look at the list of names we have gathered. is there anyone who is important to you but who is not yet on this list? Five new persons could be mentioned in addition to the names already mentioned (12)

Note. Density was based on the NG questions 10 and 11.

Density items

How well do <...name 1...> and <...name 3...> know each other?
How well do <...name 1...> and <...name 4...> know each other?
How well do <...name 1...> and <...name 5...> know each other?
How well do <...name 2...> and <...name 3...> know each other?
How well do <...name 2...> and <...name 4...> know each other?
How well do <...name 2...> and <...name 5...> know each other?
How well do <...name 3...> and <...name 4...> know each other?
How well do <...name 3...> and <...name 5...> know each other?
How well do <...name 4...> and <...name5...> know each other?

Answer categories: persons avoid each other (MISSING), persons do not know each other (0), persons hardly know each other (0.5), persons know each other well (1), persons know each other well and can get along well (1).

Social capital content

Resource generator items

Prestige and education related social capital
Do you know someone who has good contacts with media?
Do you know someone who owns a holiday home abroad?
Do you know someone who has knowledge of literature?
Do you know someone who earns more than 5000 euro monthly?
Do you know someone who can give medical advice?*
Do you know someone who has the possibility to hire someone for a job sometimes?*
Political and financial skill social capital
Do you know someone who is active in a political party?
Do you know someone who knows a lot about governmental regulations?
Do you know someone who has knowledge about financial matters?
Personal skill social capital
Do you know someone who can work with a personal computer
Do you know someone who can play an instrument?*
Do you know someone who can repair a bike or car?*
Do you know someone who can help you repair household appliances?*
Personal support social capital
Do you know someone who can give a good reference when applying for job?
Do you know someone who can give advice about conflict at work?
Do you know someone who can give advice about conflicts family member?
Do you know someone who could help you as a babysitter?*

**Items that were added and were not included in the original resource generator (Van der Gaag & Snijders. 2005).*

Answer categories: family member, friend, acquaintance, none.

Control variables

Original education items (number of years)
No education (0)
Primary (8)
Lower vocational and trade (12)
High school/ lower level (12)
High school/ medium level (13)
High school/ higher level (14)
Medium level vocational (15)
Higher vocational/college (17)
University (17)