

# **Original Papers**

Polish Psychological Bulletin 2010, vol. 41 (4), 182-189 DOI - 10.2478/v10059-010-0023-1

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# Composite Structure of Personal Networks, Age, and Well-being in Poland

Traditionally aging research focused on the disintegration of social ties, however it has recently been observed that whom we contact has a larger impact on well-being (Cacioppo et al., 2009). The authors used data from the Social Networks II module of the International Social Survey Programme to investigate the role of social network components in successful aging. A factor analysis on 1221 Polish participants revealed 4 factors that were interpreted as: close, medium, and distant family, and friends. Well-being variables were most strongly related to contact with distant family, while SS variables were most strongly related to friends. Given SS was strongly related to distant family, while perceived SS was strongly related to close family. All family contacts decreased with age, though only distant family contacts were proactively managed. These results indicate the importance of distant family in Poland, in contrast to other countries.

**Keywords:** successful aging, personal networks, social networks, social support, happiness

We live in a world of constantly evolving networks. Personal networks open up life opportunities, provide support, and strongly influence well-being. Furthermore, the disintegration of personal networks represents an important dimension of aging. Although it is well documented how the decline in social contacts affects successful aging, little is known about the effect of network composition on aged people's well-being.

Social functioning is related to a variety of health, and well-being variables (Cacioppo et al., 2009, Pavot & Diener, 2004; Hardy & Smith, 1988). For example Berkman and Syme (1979) have found that the chances of mortality of old adults over a seven year period was more than twice as high for men, and almost three times as high for women, with very small social networks, compared to those with largest social networks. Social functioning is often studied in terms of social networks and social capital. This usually implies quantitative measures, such as network-embededness and the number of social ties (Coleman, 1988). This approach, however, can provide misleading results. Studies have shown that it is not the number of acquaintances that has the most impact on a person's well-being, but the quality of social interactions (Pagel & Erdly, Becker 1987; Stephens et. al., 1987). Furthermore, people can have many acquaintances, and still be lonely. This feeling may in turn may be the cause of health-risk related behaviors, such as not exercising (Hawkley et. al., 2009).

When considering social functioning and age, we must learn how people organize their social network, and how this changes with age. We can approach the problem of social structure from a hierarchical perspective. Our social network is made up of "circles of acquaintanceship," such that each subsequent one includes more individuals with whom our relationships are less intense (Dunbar, 2008). An individual's social and cognitive resources limit the sizes of these circles. Since most of our resources decline beyond a certain age (Lastford et. al., 1998), there must be some way we manage them in later life. The socioemotional selectivity theory (Carstensen, 1993, Carstensen, Isaacowitz, Charles, 1999) predicts that with age we devote more time to friends and family, and sever more distant relationships. Moreover the perspective of remaining time can influence such life areas as work (Zacher & Frese, 2009). Not only does one's social network decline with age, he or she proactively manages it to uphold meaningful emotional relationships, and instrumental "helpers" (Lang, Carstensen, 1984).

To characterize the role of different relationships and describe their changes with aging it is essential to order these relations into qualitative components. By network components we mean naturally co-occurring types of social relations. Previous studies have differentiated relations by a priori criteria (e.g. closeness or natural language categories

such as close family or friends). For proper characterization of network dynamics it is vital to discern which types of social relationships co-occur, and thus establish components of personal networks.

The first purpose of our present study was to derive the domains of social life in Poland, or components of personal networks, and the different ways in which they relate to subjective well-being and social support. Previous research has shown, for example, that social support reciprocity has a positive impact on subjective well-being (Wahrendorf et al., 2006) more so with distant contacts (Rook, 1987). We therefore examine which contacts predict given and perceived social support, and how they are related to subjective wellbeing variables. To our knowledge such studies have not been conducted in Poland. The second purpose of our study was to determine which social domains are trimmed with age, and why. In trying to discover the mechanisms of these changes we consider social support, subjective well-being, and the diminishing number of relatives. This enables us to form viable hypotheses as to the mechanism of agerelated contact restrictions, and its implications. Since in Polish culture family plays an especially important role we were also interested how family contacts in Poland play a different role than in other countries.

#### Method

#### **Procedure**

The Polish version of the 2001 - Social Networks II Questionnaire, part of the International Social Survey Programme (ISSP), was completed by 1221 participants living in Poland (42,5 % male, 57,5% female). The questionnaire was administered as a supplement to the Polish General Social Survey (PGSS), took about 15 minutes and was ether self-administered (76,2 %) or administered as a face-to face interview (23,8%). The survey was conducted, from January 2000 to April 2002, by the Public Opinion Research Centre (CBOS) in Warsaw.<sup>1</sup>

### **Participants**

The participants were sampled by the multi-stage area probability method, where Poland was divided into 48 sampling units and the number of participants randomly chosen from a unit was proportional to the number of households in it. The interviewer chose (using the Kish grid) one person from the household at least 18 years of age, and asked him or her to complete the PGSS. There was no evidence for bias or deviation of the sample (after weighing). 40% of the respondents lived in villages or cities with populations < 10 thousand 43.8 % lived in moderately sized cities (population between 20 and 500 thousand) and 13.8% lived in large cities (population larger than 500

thousand). 6.5% had < 8 years of school completed 48.5% had 8-11 years of school completed and 44.9% had at least attended college (> 12 years of schooling.) 42.8% were employed, 13.2% were unemployed, and 44.0% were not in the work force. 61.2% of the respondents were married and 38.8% were not. Female respondents' mean age was 49.02 (SD = 17.67, range = 19-93), and male respondents' mean age was 46.43 1(SD = 6.48, range = 18-91)

#### Measures

# **Contact frequency**

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First, the respondents were asked if they had a living child, mother, father, siblings, and closest friend. Next the contact frequency with these family types was measured by asking "how often do you see or visit this [contact type]" and the response scale had 7 levels (He/She lives in the same household as I do, daily, at least several times a week, at least once a week, at least once a month, several times a year, less often). Contact frequency with uncles/ aunts, cousins, parents-in-law, brothers- or sisters-in-law, nieces and nephews, and godparents was measured by the question "Now some questions about your contact with other relatives. Please indicate how often you have been in contact with any of the following types of relatives in the last four weeks." The respondents answered on a 3 level response scale (more than twice in the last 4 weeks, once or twice in the last 4 weeks, Not at all in the last 4 weeks) there was also an option of answering, "I have no living relatives of this type."

Because of the different number of levels of measurement for the two contact groups, we decided to recode the contact levels into a three-level score. This was done by grouping the responses into one of three categories: 2- daily contact (He/She lives in the same household as I do, daily, and at least several times a week, more than twice in the last four weeks) 1- monthly (at least once a week, at least once a month, several times a year, once or twice in the last four weeks) 0- less often (less often, I have no living relative of this type, not at all in the last four weeks).

A dichotomous variable (i.e. 0, 1) was also created to indicate whether a person had any living family member of a given type.

# Number of friends

The number of friends other than family member and relatives a person had been measured by three separate questions. They were:

- 1)"thinking about people at your work place, how many of them are close friends of yours?"
- 2)"Thinking now of people who live near you in your neighborhood or district: how many of these people are close friends of yours?"
- 3)"How many other close friends do you have apart from those at work, in your neighborhood, or family members?

<sup>1</sup> The data is available at the Polish Social Data Archive, Institute for Social Studies, University of Warsaw.

Think, for instance, of friends at clubs, church, or the like?"

Next, the number of friends in each category was added to obtain the total number of close friends a person had. Because of the violation of the normality assumption (skewness = 1.01, SE = 0.07) of the number of close friends people in the study reported, the logarithm transform was used. This had an additional benefit of reducing the range (0-3.43), to that comparable with contact frequency variables. The measure used in the analysis was therefore the natural logarithm of the number of close friends reported (Ln(#of close friends)).

## Social support

The amount of social support given to others was assessed by the question "During the past 12 months, how often have you done any of the following things for people you know personally, such as relatives, friends, neighbors or other acquaintances?" the categories of social support were: "Helped someone outside of your house-hold with housework or shopping," "Lent quite a bit of money to another person," and "Spent time talking with someone who was a bit down or depressed." Where the first two questions referred to instrumental social support and the last assessed emotional social support. The respondents could answer: "once or twice a week," "Once a week," "Once a month," "At least two or three times in the past year," "Once in the past year," and "not at all in the past year." As with social contacts the amount of social support given was recoded into a three-level scale: 2-weekly or monthly, 1-yearly, and 0- not at all.

The amount of perceived social support was assessed by three pairs of questions (a total of 6 questions). The first question in the pair asked who the respondent would turn to in a difficult situation first, and the second question asked about his second choice. As with social support given, the first two pairs referred to instrumental social support ("Suppose you had the flu and had to stay in bed for a few days and needed help around the house, with shopping and so on." and "Suppose you needed to borrow a large sum of money.") and the last pair referred to emotional social support ("Suppose you felt just a bit down or depressed, and you wanted to talk about it.") A person could choose from a list people they knew (e.g. relative, friend, neighbor), people or organizations that most likely were not that close to (e.g. family doctor, priest, self-help group), or no one. Correspondingly they received a score of 2, 1 or 0.

Finally a joint score was calculated for given and perceived social support respectively. Total social support given (GSS) had a *range* of 0-6, (with 0 meaning the person did not give the type of social support mentioned in the past year), M=2.50 and SD = 1.51. Total perceived social support (PSS) had a *range* of 0-12, M = 10.43 and SD = 2.09.

Five dichotomous dummy variables (i.e., 0, 1) for each of

the questions reflecting which social domain the participant would turn to. The five categories were close family (parents, sibling, child), medium family (other blood relatives), distant family (in laws and nephews), close friend, and other. Next, all the variables were added for each category separately. This gave us a sum of five variables pertaining to perceived social support with a *range* of 0-6.

### Well-being variables

Happiness was assessed by the question "If you consider your life in general these days, how happy or unhappy would you say you are, on the whole?" where the possible response was: 4-very happy, 3- fairly happy, 2-can't choose, 1- not very happy, 0- not happy at all. The *range* was therefore 0 - 4 with M = 2.63 and SD = 1.02

Can-do-attitude was assessed by the question "Suppose you wanted the local government to bring about some improvement in your local community. How likely is it that you would be able to do something about it?" the possible responses were: 4-very likely, 3-somewhat likely, 2-don't know, 1-not very likely, 0- not likely at all. The *range* was therefore 0-4, M = 1.50 and SD = 1.11

Social trust was measured by the question "most of the time you can be sure that other people want the best for you" and the response was measured on a five-point Likiert-type scale: 4- strongly agree, 3-agree, 2-neither agree nor disagree (we added "can't choose") 1-disagree, 0-disagree strongly. The *range* was therefore 0-4, with M = 2.39 and SD = 0.91

#### Covariates

The covariates were socio-demographic variables that are known to have an effect on social contacts. They were age, gender, education in years and household income. The education in years was recoded into 4 values, calculated by the mean in each category representing the continuity of the time spent in school or university. Monthly household income (M = 1833, Median = 1500 SD = 1521 skewness = 4.74 SE = 0.07 range = 0 -23000  $zt^2$  (approx. \$5000)) was treated with a square root transform to correct for the large positive skewness (after transformation: skewness = 1.52 SE = .07)

# **Overview of Statistical Procedures**

To explore the structure and change of social contacts and their impact on social support and well-being variables a longitudinal approach would be most appropriate. Because our analysis was cross-sectional only, great care must be taken when interpreting its results. This method, however, allows for the formation of hypothesis and provides first insights through the comparison of respondents of different ages. The analysis consisted of four parts.

<sup>2</sup> Two people reported a monthly household income of 0. We suppose that this is due to the fact that they may be supported by someone who does not live in the same household as they do.



Table 1

Exploratory Factor Analysis on Unit-Weighted Contact Frequency Variables: Factor Loadings, Communalities and Explained Variances.

Factor Analysis	Factor loading	$h^2$	Explained variance	
Close family contact			17.52	
Mother contact	.79	.67		
Father contact	.78	.66		
Child contact	75	.57		
Sibling contact	.34	.28		
Medium family contact			15.52	
Cousin contact	.79	.66		
Uncle/aunt contact	.77	.66		
God parent contact	.71	.55		
Distant family contact			14.93	
Sibling-in-law contact	.84	.72		
Nephew contact	.74	.59		
Parents-in-law contact	.57	.41		
Friend contact			11.91	
Close friend contact	.85	.73		
ln(# of close friends)	.80	.67		

Note. N = 1221.  $h^2$  represents factor communalities. Extraction Method: Principal Component Analyses Rotation Method: Varimax with Kaiser Normalization

In part one, an exploratory factor analysis was conducted on the social contact variables (contact frequency and Ln(#close friends)) to see whether the respondents' social network could be divided into separate domains. These domains are shown in table 1 in the results section. This analysis was performed on the whole study population. Part two of the analysis was intended to examine, what is it that these specific domains pertain to. This was done by examining the relationships of these domains to social support and well-being variables through a series of linear models. We acknowledge that socio-demographic variables (such as gender, household income, years of education and age) may affect social support and well-being variables, however they are not the primary focus of this analysis. Therefore all models started off with the block of these covariates, which held their effects constant. The first analysis examined the significance of explained variance change of the model containing only the covariates, and a model to which the frequency of contacts in each social domain were added, on social support variables. Next the frequency of contacts in each social domain was regressed on each well-being variable separately. Both of these analyses were conducted on the whole population.

Parts three and four pertain to the effect of age on social variables, its mechanisms and implications for a person's well-being. To make sure we captured the age-related dynamics we restricted the population for all the subsequent analyses to people older than 48 years of age (N = 583), and excluded those that did not respond to more than half of the questions about contact frequencies (N = 15, 2.6%). The

analyses were thus restricted to 568 people, of which 227 (40%) where male and 314 (60%) were female.

The third part of the analysis consisted of a series of partial correlations of age and social and subjective well-being variables controlling for household income and years of education. It was conducted for both male and female subjects separately, and z scores were computed to see if the difference in the change of social contacts, social support, and well-being variables with age varied significantly between men and women.

In part four, the mechanisms of social decay with age were explored. First, a mediation analysis was conducted, with the respondent's age as the independent variable, the contact frequency in a social domain as the dependant variable, and the number of living family members in the domain as the mediator. This analysis was conducted to test whether the decrease of contact frequency with age is simply related to the reduction of the number of living family members. Next, a series of linear regressions were conducted with perceived social support from each category as the dependent, age as the independent and the square root of household income, years of education and gender as the covariates.

Table 2					
R <sup>2</sup> Change Analyses: Contact Variables and Social Support.					

	Perceived Social Support		Given Social Support	
	R <sup>2</sup> change	p	R <sup>2</sup> change	p
Close family contact	.030***	< .001	.007**	.003
Medium family contact	.007**	.005	.006**	.007
Distant family contact	.000	.75	.012***	< .001
Friend contact	.035***	< .001	.077***	< .001

<sup>\*</sup> p < .05, \*\* p < .01, \*\* p < .001

Model 1 included covariates only

Model 2 included both covariates and the contact frequency variable

#### **Results**

### **Exploratory Factor Analysis on Contact Frequencies**

An exploratory factor analysis, was conducted to examine whether participates' social contacts could be categorized into meaningful groups. It was carried out through a principle component extraction with Varimax rotation. As table 1 shows, a participants' social network could indeed be categorized into meaningful domains.

Table 1 includes the four-factor solution and their associated factor loadings for each contacts frequency variable. The first factor can be interpreted as the contact with close family, as it includes parents, siblings and children. Further family can be divided between factors two and three: medium and distant family. The medium family factor has one thing in common, participants have known these people since birth; it is their distant family (i.e., relatives-in-law and nephews) they encountered in adulthood. The fourth factor can be interpreted as our contact with friends, it includes how often we come into contact with our closest friend and the number of close friends we have. The four-factor solution explained 59.88% of the total variance. All factor loadings were high (> .7) and factor communalities were satisfactory (>.5) except for the sibling contact variable (factor loading = .34,  $h^2$  = .28) and parents-in-law variable (factor loading = .57,  $h^2$  = .41). This could indicate the potential weakness of including these two variables into our four-factor model. Despite this, we included both these variables in our later analyses in order for them to be interpreted meaningfully.

# **R**<sup>2</sup> Change Analyses: Contact Frequency Domains and Social Support

R-squared change analyses were conducted to determine the importance of the four domains of social contacts to the participant's amount of given and perceived social support. Table 2 shows the results of these analyses.

The only social variable which did not increase the explained variance significantly at the p < .05 level was distant family contact as the predictor of perceived social support. An interesting pattern emerges when considering family only. The "distance" of the family was proportional

to the magnitude of the  $R^2$  change in explaining perceived social support. The perception of received social support grows the most with the contact with close family members. Contact with distant family members predicted perceived social support the least. The opposite was true for given social support. Given social support increased most with distant family contacts and least with close family contacts. When taken together these two results may suggest that one receives social support form close family members, but gives social support mostly to distant family members. The friend contact variable had more explanatory power than any other variable when considering both types of social support, however this effect was twice as large on given social support.

# Regression Analyses: Contact Frequency Domains and Well-being

Three multiple regression models were used to assess the importance of the contact frequency domains, distinguished in the explanatory factor analysis, to participants' wellbeing. In all three models four contact variables (i.e., close, medium, and distant family contact, and friend contact) were the independent variables, the well-being variable in question were the dependant variables, and the covariates (age, sqrt household income, years of education, and gender) where controlled for. All models were statistically significant (p < .001) though varied in the amount of explained variance. Social trust was best predicted from contact frequencies ( $R^2 = .04$ , F(4, 1040) = 10.29), with can-do attitude ( $R^2 = .03$ , F(4, 1040) = 7.61) and happiness ( $R^2 = .02$ , F(4, 1040) = 5.21) falling behind.

It was found that only distant family contact significantly predicted happiness ( $\beta = .12 \ p < .001$ ). Although both social trust and can-do attitude were predicted by all the other contact domains (p < .05), distant family remained the best predictor of these well-being variables ( $\beta = .11$ , p = .001 and  $\beta = .10$ , p = .003 respectively). Apart from distant family, friend contact ( $\beta = .1$ , p = .002) was a better predictor of social trust than close ( $\beta = .08$ , p = .02) and medium family ( $\beta = .07$ , p = .04). The opposite was true for can-do attitude, where close ( $\beta = .07$ , p = .05) and medium ( $\beta = .08$ , p = .02) family contacts can be supposed to be a better predictor of well-being than friend contact ( $\beta = .07$ ,

Table 3
Gender-Specific Correlations of Social and Well-being Variables with Age.

Measure	Men(N = 227)		Woman(N = 314)		
	r	p	r	p	p (gender difference)
Social contact variables					
Close family contact	37	< .001	37	< .001	.99
Medium family contact	18	.01	22	< .001	.66
Distant family contact	27	< .001	33	< .001	.47
Friend contact	04	.60	14	.01	.24
Social support variables					
Given social support	06	.42	22	< .001	.07
Perceived social support	.00	.97	16	.006	.09
Wellbeing variables					
Social trust	.09	.19	.05	.40	.63
Can-do attitude	.10	.17	08	.15	.05
Happiness	.19	.005	07	.21	.003

Note. All correlations were corrected for household income and years of education

p = .04). Distant family was therefore the most important social domain related to well-being, and the role of friend and family contact varied for can-do attitude and social trust.

# Correlations: Social and Well-being Variables Correlated with Age

Partial correlations of contact domains, social support and well-being variables with age controlling for years of education and household income were conducted separately for men and women to see how a person's social life changes as he or she gets older. The results of these analyses can be seen in table 3.

As expected, all social contacts declined with age, except for men's friend contact. Though this difference between men and women was not statistically significant (p > .05). Given and received social support declined with age in women (r = -.22, p < .001 and r = -.16, p = .006respectively) but not in men (p > .4) though this difference was only at a trend level (.07 and .09 respectively). It must be noted, however, that women overall give (M = 2.32 SD)= 1.49) more social support than men (M = 1.96 and SD =1.49). This gender difference was significant (F(1, 559) =7.97, p = .005). Only men's happiness showed a significant correlation with age (r = .19, p = .005), it had a significant gender difference (p = .003), thus indicating that men, as opposed to women, tend to grow happier with age. However we must remember that our analyses are cross-sectional only, so we cannot make definite causal attributions.

# Mediation Analyses: The Effect of Age on Family Contact Domains Mediated by Them Being Alive

Three mediation analyses were performed in order examine the mediation role of the number of living relatives within each of the three family contact domains (i.e., close,

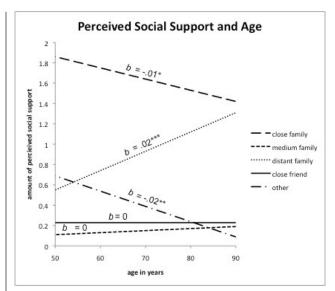


Figure 1. Mediation diagrams: the effect of age on family contact mediated by the number of living family members, the number in parenthesis is the direct effect, and the one on its left is the total effect (controlling for the mediator).

medium, and distant family) on the inverse relationship between contact measures and age. The mediation diagrams showing betas and p values are shown in figure 1.

In all models age had a significant (p < .001) effect on the mediator, and all the mediators had a significant effect on the dependant variables (p < .001) when controlling for age. All of the total effects were significant (p < .001). Thus full mediation can be assumed for close and medium family, because the direct effect dropped to a non-significant level (p = .06 and p = .66 respectively). Distant family contact, in turn, was not fully mediated by the number of distant family members alive, because the direct effect was still significant (p = .001). The results of these analyses indicate that as people get older, they tend to proactively limit

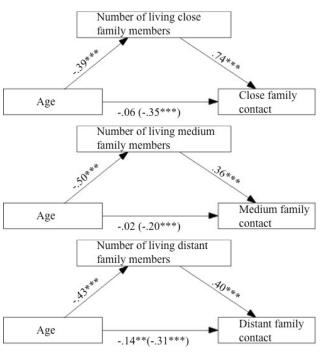


Figure 2. Age regressed on the five social support variables, each one representing the relative importance of a contact domain to perceived social support. \* p < .05, \*\* p < .01, \*\*\* p < .001

the frequency with which they meet with distant family members, but not with medium or close family members.

# Regression Analyses: The Relationship Between Age and Perceived Social Support in Social Contact Domains

Age was regressed on the five perceived social support variables pertaining to social contact domains, controlling for sociodemographic variables and gender, in order to examine the dynamics of the social support structure. An illustration of the results can be seen in figure 2.

Overall participants would most likely turn to a close family member for help in a difficult situation, however less so with age (b = -.01, p = .04), the second most popular category to turn to was distant family, increasingly so with age (b = .02, p < .001). The third most popular category to turn to for material or emotional support consisted of people and institutions not taken into account in the previous analyses (ex. spouse, charitable organization etc.). Support perceived from this category significantly declined with age (b = .02, p = .001). It can be inferred that participants would not only turn to medium family and friends for support least often, but also that age had a un-significant effect on these variables (p = .31 and p = .79 respectively). These findings call into question our previous result, namely that the frequency of contact with distant family does not predict our overall perceived social support. It is even more perplexing that we proactively limit the frequency with our distant family (see mediation analyses above), when we rely more heavily on them with age.

### **Disscussion**

Data from these cross-sectional studies conducted on a Polish sample indicate that Polish people have four components of contacts among friends and family, and that each of these provides different benefits to social support and subjective well-being. Furthermore, the frequency of contacts with all family circles decreases among middle and old adults similarly, though this seems to be mainly due to losing family members of the close and medium family, as opposed to the mechanism of proactive selectivity in distant family relations. Our findings are in line with Wellman's and Wortley's (1990), namely that most relationships provide qualitatively different, albeit important specialized support. They also extend the work on Socioemotional Selectivity Theory (Carstensen, Isaacowitz, Charles, 1999), and present evidence for its application to contacts previously treated as a homogenous group.

Subjective well-being was clearly most strongly related to participants' frequency of contacts with distant family. It seems strange that this same measure did not predict participants' perceived social support, because studies found that the frequency of less intimate contacts predicted perceived social support, while this was untrue of close social contacts (Cutrona, 1986). It is even more interesting that our analysis indicated the exact opposite pattern, close family contacts predicted perceived social support most, while distant family contacts predicted given social support best. . While contacts with close family have been shown to play a crucial role in well being in studies in other countries, specific for Poland is the importance of contacts with distant family and the fact that giving support to distant family, rather than receiving support is related to well-being. This result may indicate that giving support to relatives makes one feel needed and increases self-esteem and the perceived meaning of life. It also may be the case that people who feel better are more able to give support to their distant family. Finally it also may be the case of bi-directional causality, where the relationship exists in both directions and both effects strengthen each other. The importance of distant family may be due to Polish culture, which places high importance on large family where extended family meets regularly during holidays (Christmas and Easter) and family events.

Another interesting finding was the different role of family and friends when it comes to well-being. Contact with close and medium family seems to promote cando attitude, while contact with friends seems to increase a person's social trust. This finding would be worth investigating more fully in future research, as it could potentially be used to compensate a person's low level of well-being. Again the role of medium family for can-do attitude may be specific for Polish culture.

The change of the frequency of distant family contacts with age is the richest source of mechanisms of social environment management. This is because it is the only network component that was actively managed by subjects. It also contains at least two intriguing findings. The first one has to do with the fact that, though we tend to increasingly rely on distant family support in old age, we proactively limit our contact with its members. One possible explanation would stem from the fact that we limit more distant relationships with age. As we age, we require more instrumental assistance, and we usually do not want it from close emotional relationships (Lang & Carstensen, 1994), therefore those who help us, may ironically become less intimate, and more distant.

The second mystery is related to the finding that contacts with distant family were found to be the sole social contact predictor of happiness, however it is this component that was trimmed with age. From a naïve perspective it seems like happiness-suicide, but this cannot be the case, because women's happiness was not related to age, and in men the relationship was positive! One possible explanation is provided by compensation theories (Brandtstadter & Renner, 1990; Brandtstadter & Rothermund, 1994), with age people rescale their goals, among them social needs, and that way are quite satisfied in their close social circles (Lastford at. al., 1998). Another explanation is that social aging is related more closely to given than perceived social support (Depner et al., 1988), thus distant family contact is related more to given than perceived contact. It could follow that social age, not a chronological age is a predictor of well-being.

As people get older they tend to become increasingly reliant on their close family. This is due to the fact that it is they who provide us support, and meaningful emotional relationships (Cerstensen 1999, Land et. al. 1994). However an adult's person's well-being depends most strongly on contacts with distant family, and on the ability to give support. Successful aging thus requires maintaining naturally declining contacts with distant family and participation in activites where one can make and help new friends. Polish culture, with its emphasis on distant family, may facilitate successful aging.

### References

- Berkman, L. F., Syme L. S. (1979) Social Networks, Host Resistance, and Mortality: A Nine-Year Follow-Up Study of Alameda County Residents. American Journal of Epidemiology, 109, 186-204.
- Brandtstadter J., & Renner, G. (1990). Tenacious Goal Pursuit and Flexible Goal Adjustment: Explication and Age-Related Analysis of Assimilative and Accommodative Strategies of Coping. Psychology and Aging, 5, 58-67.
- Brandtstadter, J., & Rothermund, K. (1994). Self-Percepts of Control in Middle and Later Adulthood: Buffering Losses by Rescaling Goals. Psychology and Aging, 9, 265-273.

- Cacioppo, J. T., Fowler, J. H., Christakis, N. A. (2009) JamesAlone in the Crowd: The Structure and Spread of Loneliness in a Large Social Network. Journal of Personality and Social Psychology, 97. 977-991
- Cerstensen L. L., Isaacowitz D. M., Charles S. T. (1999). Taking Time Seriously: A Theory of Socioemotional Selectivity. American Psychologist, 54. 165-181.
- Carstensen, L. L. (1993). Motivation for social contact across the life span: A theory of socioemotional selectivity. In J. E. Jacobs (Ed.), Nebraska Symposium on Motivation, 40. Developmental perspectives on motivation—Current theory and research in motivation, 209-254. Lincoln: University of Nebraska Press.
- Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. The American Journal of Sociology, 94, 95-120.
- Cutrona C. E. (1986). Objective Determinants of Perceived Social Support. Journal of Personality and Social Psychology, 50, 349-355.
- Daatland, S. O. (2003). From Variables to Lives: Inputs to a Fresh Agenda for Psychological Aging Research in Norway. European Psychologist, 8, 200-207
- Depner, C. E., Ingersoll-Dayton, B. (1988). Supportive Relationships in Later Life. Psychology and Aging, 3, 248-357.
- Dunbar, R. I. M. (2008). Cognitive Constraints on the Structure and Dynamics of Social Networks. Group Dynamics: Theory, Research, and Practice, 12, 7-9.
- Hardy, J. D., Smith T. W. (1988). Cynical Hostility and Vulnerability to Disease: Social Support, Life Stress, and Physiological Response to Conflict. Health Psychology, 7, 447-459.
- Hawkley, L. C., Thisted, R. A., Cacioppo J. T. (2009). Loneliness Predicts Reduced Physical Activity: Cross-Sectional & Longitudinal Analyses. Health Psychology, 28, 354-363.
- Lang, F. R., Carstensen L. L. (1994) Close Emotional Relationships in Late Life: Further Support for Proactive Aging in the Social Domain. Psychology and Aging, 9, 315-324.
- Lansford, J. E., Sherman, A. M., Antonucci, T. C. (1998). Satisfaction With Social Networks: An Examination of Socioemotional Selectivity Theory Across Cohorts. Psychology and Aging, 13, 544-552.
- Pagel, D. M., & Erdly, W. W., Becker, J. (1987). Social Networks: We Get By With (and in Spite of) a Little Help From Our Friends. Journal of Personality and Social Psychology, 53, 793-804.
- Pavot, W. & Diner E. (2004). The Subjective Evaluation of Well-Being in Adulthood: Findings and Implications. Ageing International 29, 113-135
- Rook, K. S. (1987). Reciprocity of Social Exchange and Social Satisfaction Among Older Women. Journal of Personality and Social Psychology, 52, 145-154.
- Stephens, M. A. P., Kinney, J. M. & Norris, V. K., Ritchie, S. W. (1987) Social Networks as Assets and Liabilities in Recovery From Stroke by Geriatric Patients. Psychology and Aging, 2, 125-129.
- Steverink N., & Lindenberg S. (2006). Which Social Needs Are Important for Subjective Well-Being and What Happens to Them With Aging? Psychology and Aging, 21, 281-290
- Wahrendorf, M., Knesebeck, O., Siergist J. (2006). Social Productivity and Well-Being of Older People: Baseline Results From The SHARE Study. European Journal of Ageing, 3, 67-73.
- Wellman, B., & Wortley, S. (1990). Different Strokes from Different Folks: Community Ties and Social Support. American Journal of Sociology, 96, 558-588.
- Zacher, H. & Frese, M. (2009) Remaining Time and Opportunities at Work: Relationships Between Age, Work Characteristics, and Occupational Future Time Perspective. Psychology and Aging, 24, 487-493.