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Explicit and implicit values of polish grandmothers and their granddaughters

The authors tried to determine if and to what extent maternal granddaughters share the explicit and implicit values of their grandmothers. 80 grandmothers-granddaughter dyads were surveyed using Schwartz' SVS and Mudyń's RN-02, an instrument assigned to identify "ontological orientations" (implicit evaluation). The results indicate that: 1) grandmothers differ significantly from granddaughters in all ontological orientations (except for Aesthetic), especially in Theoretical and Religious orientation, 2) they differ also in personal values, except for Universalism and Power, 3) regression analysis revealed two decisive factors which determine convergence of ontological orientations and values in grandmother-granddaughter dyads, i.e. the level of education and attitudes toward religion. It may mean that these are the two important transmitters of world view as well as personal values.

Keywords: explicit and implicit values, granddaughters and grandmothers, value transmission

Introduction

In our pilot study we have searched for possible similarities (convergences) between grandmothers' and their granddaughters' values systems. So, our study concerns indirectly trans-generational value transmission. We have tried also to confront the results of a widely known method created by Shalom Schwartz (SVS), treated as an explicit values measure, with a new, original method (RN-02) designed to identify "personal ontological orientations", which can also be treated as a measure of implicit evaluation. One of the aims of the study was to compare the results of the two instruments, which use different perspectives, but seem to relate to a similar motivational background. In recent years, notably, we can observe a rapid growth of interest in the relation between two kinds of measures, especially in research on implicit attitudes while using IAT as proposed by Greenwald, McGhee, Schwarz (1998). Although implicit evaluation has become quite a familiar concept, human values have been explored mainly by means of direct, explicit measures.

As to values transmission at least a few different approaches have been described (Glass, Bengston, Dunkham, 1986). From a traditional socialization

perspective, values can be transmitted by direct child-rearing practices with families regarded as the principal agent of socialization. It is worth noticing that there are two kinds of transmission (or influence) between children and their grandparents: direct and indirect. Values from grandparents to grandchildren may be transmitted indirectly through their parents, considered as mediators of inter-generational communication, and directly – from grandparents to grandchildren - in the process of face to face interactions. We should also remember that interactions are bidirectional or reciprocal (Gomez, Grob, 2008). It may be said that to some extent grandchildren also shape and "rear" their grandparents, similarly as it take place in the process of interactions with (their) parents (De Mol, Buysse, 2008).

Inter-generational transmission could also be seen as social status inheritance, which indirectly influences value priorities. From this perspective similarities in values could be the result of social position and related to factors such as formal education or economic status. In other words, similarities may be seen as a consequence of the family-based "social capital", understood, however, broader than "resources stemming from a durable network of acquaintance or recognition" (Widmer, 2006, p. 981).

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We should not forget also that grandchildren share common genes not only with their parents but also with grandparents. It may sensitize them for specific aspects of reality and facilitate shaping appropriate kinds of personal values. It is known, for example that religious attitudes are subject to genetic determination (Bouchard, McGue, Lykken & Tellegen, 1999; Bouchard, Segal, Tellegen et al. 2004; Winter, Kaprio, Viken et al. 1999). It was also shown that children-to-parents resemblance is related to gender, i.e. children are more similar to the parent of the same sex (Posner, Baker, Heat & Martin, 1996).

Narrowing the theoretical context of current consideration to the question of possible factors contributing to expected similarities in grandmothers-granddaughters value priorities, we should distinguish maternal and paternal grandchildren. It has been demonstrated that grandparents invest more in their maternal grandchildren than in paternal ones (Michalski, Shackelford, 2005). From an evolutionary psychological perspective it is interpreted in terms of a special kind of "relational uncertainty". It means (among others) that grandparents invest more in their daughters' children than in their sons' children, because a child of one's own daughter is undoubtedly their grandchild while a son's child may implicate some dose of uncertainty. We should stress that in our research we use as subjects only maternal granddaughters and their grandmothers.

As demonstrated by Gomez, Grob (2008) the similarities found in their cross-culture study (in German, Swiss, American and Russian populations), suggest that life goals resemblance is generally greater between succeeding generations, i.e. between parents and children rather than grandparents and grandchildren. Nevertheless, we should not ignore the common observable facts in Poland that grandmothers very often spend a lot of time with their very young grandchildren, substituting parents in their care giving and parenting functions, while parents are engaged in job activities. As a consequence, grandmothers have many opportunities to influence their grandchildren's beliefs and evaluations while commenting everyday events and activities in direct interactions.

The all above mentioned circumstances seem to be arguments for expecting some similarities between grandmothers - granddaughters value preferences, articulated in an explicit way or demonstrated indirectly as dominant ontological orientations. However, one should not forget that a "significant other" (including grandmothers) may not only shape one's beliefs and value system, and model one's behavior, but may also play the role of a significant anti-model. In such a case the grandchild has a good opportunity to gain personal knowledge in what to avoid doing or who to avoid being in the future.

On the other hand, there are a couple of factors that may suggest lack of similarities between young women and their grandmothers. These are such factors as belonging

to different societal cohorts and generations, as well as variables related to age (health condition, different stage of life cycle). When it comes to cohort experience one should mention the macro-social and political system changes which have been taking place in Poland after 1989, when a free market economy and democratic rule replaced "real socialism". This means that the Polish grandmothers we questioned, as opposed to their granddaughters, lived most of their lives in a state governed by socialistic rules, that reinforced a collectivist *modus vivendi* and counteracted individualistic aspirations and values. Therefore, it is expected that two different (opposite) types of values coexist in Polish society (Lubiewska, 2008); namely collectivist values among elder people and individualistic values among the young.

Taking into consideration the above-mentioned points of view and arguments on value transmission, some reasonable similarities between grandmothers and grandchildren could be expected. In our pilot study, we explored a possible convergence of grandmothers'- granddaughter's values and looked for determinants of their correspondence.

Method

The data were collected using two survey instruments – Schwartz's Value Survey (SVS) and Mudyń's RN-02.

SVS

The SVS contains 57 single values that can be divided into 10 distinct motivational types (Schwartz, 1992). Ten basic values are dynamically related and can be presented as a circular structure, in which the proximity between values shows a similarity of underlying motivation, and distance - antagonism. The model is organized into two bipolar dimensions: Self-Transcendence *versus* Self-Enhancement and Openness to Change *versus* Conservation. The SVS has been widely used in cross cultural studies with many different samples.

RN-02

The RN-02 is an original instrument constructed to identify "personal ontological orientations", which can also be treated as a measure of implicit evaluation, providing information to the question: what is most important for an individual? It is designed as a projective tool, in which - instead of answering a direct question – the subject person has to decide what kind of abstract object seems to her/him the most real among the concepts presented in the set. The RN-02 consists of 58 sets of concepts referring to various objects and aspects of human activity. Sixty concepts were used in the tool, ten for each ontological orientation. Six ontological orientations refer to Spranger's typology of values, which are *economic, theoretical, esthetic, political,*

Table 1
Ontological Orientations (RN-02) of Grandmothers and their Granddaughters.

Ontological orientation	Grandmothers Mean	Grandmothers SD	Granddaughters Mean	Granddaughters SD	t-Value
Theoretical	9.84	11.5	20.05	13.5	-5.86***
Economic	18.60	12.8	26.46	15.8	-3.45***
Political	16.56	11.9	20.34	11.4	-2.05*
Social	30.08	13.1	25.23	15.6	2.18*
Religious	31.91	18.5	10.70	12.5	8.35***
Aesthetic	18.09	10.9	22.00	14.1	-1.98

Paired t-Test; p-two-tailed, *** $p < .001$ ** $p < .01$ * $p < .05$

social and *religious*. Each concept appears in three different sets. Respondents receive points for each choice. The total number of points is constant, which means that it is impossible to receive high scores in each type of orientation.

There are some premises lying behind the method. It is assumed that: 1) If something is important for an individual, it seems for him/her more real, in comparison to things which are relatively unimportant or indifferent to him/her. 2) The term "reality" (or something real) is by nature very indefinite and even ambiguous, so it must be specified by an individual user. 3) This means that "reality" itself is a kind of projective stimulus, which must be somehow interpreted by the user. 4) There is interdependence between the dominant ontological orientation and preferred values; this primarily applies to implicit values.

Generally, ontological orientation can be understood as the individual's tendency to selectively concentrate on a specific aspect of his/her own life activity (economic, social, religious, etc), which leads to the belief in the high reality of given references in the external world.

Cronbach's Alpha and test-retest reliability were used to assess reliability of the instrument. The alpha levels oscillate from .71 (for esthetic orientation) to .86 (for religious orientation), $N=416$. Test-retest reliability coefficients range from .86 for religious orientation to .85 for political orientation ($N=104$, retest after 10 weeks time).

Validity of the instrument was evaluated using the Allport-Vernon-Lindzey *Study of Values* in the Polish adaptation by Chojnowski. Both RN-02 and *Study of Values* (SV) derived from the same value typology by E. Spranger (1930), which makes the comparison between those two instruments suitable. Multitrait-multimethod analysis (Campbell, Fiske 1959) using the data collected from the group of 160 students, revealed convergent validity of two instruments. Convergent validity coefficients were only weak and moderate, which could be partially explained by the fact, that RN-02 is designed to capture implicit values in comparison to SVS which is based on explicit evaluations.

Participants

RN-02 and SVS were administered to 80 granddaughters (aged 18-30) and their 80 maternal grandmothers (aged 64-86) in December 2006 by using convenience sampling. Matrilineal kin were chosen based on a documented greater investment in grandchildren parenting by maternal -- in comparison to paternal -- grandmothers (Michalski, Shackelford, 2005). Consequently we expected value transmission to be more manifested in matrilineal kin.

Results

Differences in Personal Values and Ontological Orientation between Grandmothers and their Granddaughters

The differences in ontological orientations (RN-02) between grandmothers and granddaughters were analyzed by using the paired t-Test. The mean results and statistics are presented in table 1.

The most noticeable differences between grandmothers and granddaughters appeared in *Theoretical*, *Religious* and *Economic orientations*. Relatively small, but significant differences appeared in *Social* and *Political orientations*. There were no significant differences between grandmothers and granddaughters in *Aesthetic orientation*. The same analysis has been done to compare results in personal values (SVS). The results are presented in table 2.

In most of the cases, the personal values of grandmothers are significantly different from the respective values of their granddaughters. The two groups significantly differ only in *Universalism* and *Power*.

Interdependence in Ontological Orientations and Personal Values between Grandmothers and Granddaughters

Pearson's inter-correlations were used to examine if grandmothers' and granddaughters' ontological orientations, as well as personal values are related. The analysis conducted for ontological orientations revealed that only *Theoretical orientations* of grandmothers and granddaughters are positively related. Still, the strength of the correlation is weak ($r = .25$; $p = .03$). Correlations

Table 2
Personal Values (SVS) of Grandmothers and their Granddaughters.

Personal values	Grandmothers Mean	Grandmothers SD	Granddaughters Mean	Granddaughters SD	t-Value
Universalism	4.3	0.84	4.2	0.84	1.04
Benevolence	4.7	0.77	4.0	1.06	4.84***
Tradition	4.3	1.16	2.5	1.30	8.57***
Conformity	4.5	0.96	3.8	0.86	5.35***
Security	4.9	0.99	3.8	0.82	7.09***
Achievement	3.8	1.09	4.2	0.80	-3.07**
Power	2.3	1.25	2.2	1.35	0.73
Hedonism	2.9	1.61	4.0	1.38	-5.06***
Stimulation	1.9	1.30	3.3	1.39	-5.83***
Self-Direction	4.0	0.97	4.9	0.71	-6.83***

Paired t-Test; p-two-tailed, ***p< .001 ** p< .01 * p< .05

Table 3
Intercorrelations between Grandmothers' and Granddaughters' Personal Values.

	Granddaughters									
	Univ	Benev	Trad	Conf	Sec	Achiv	Pow	Hed	Stim	Self-d
Grandmothers Universalism (Univ)	.27*	.22	.24*	.32**	.11	.10	-.16	-.05	.04	.05
Benevolence (Benev)	.11	.23*	.11	.04	-.05	.19	.12	.07	.18	.18
Tradition (Trad)	-.10	-.14	-.13	-.13	-.06	.14	.14	.28*	.32**	.03
Conformity (Conf)	-.08	.14	.12	.20	-.08	.21	-.01	-.10	.11	.11
Security (Sec)	.14	.10	.03	.25*	-.02	-.03	.11	.24*	.09	.06
Achievement (Achiv)	.05	.09	.12	.24*	.07	.15	-.23*	-.27*	-.03	-.00
Power (Pow)	.22*	.09	.07	.21	.20	-.07	-.07	-.02	.03	.05
Hedonism (Hed)	-.01	.12	.25*	.11	.12	-.23*	.03	.24*	.03	-.15
Stimulation (Stim)	.09	.16	.25*	.21	.07	-.25*	-.20	-.14	-.29**	-.07
Self-direction (Self-d)	.08	.25*	.23*	.25*	.16	.07	.01	-.15	-.08	.05

***p< .001 ** p< .01 * p< .05

between grandmothers' and granddaughters' personal values indicate more complex, but still weak interdependence (see table 3).

The most significant correlations are observed between grandmothers' *Universalism* and granddaughters' *Conformity* ($r=.318$; $p<.01$) as well as grandmothers' *Tradition* and granddaughters' *Stimulation* ($r=.316$; $p<.01$). Grandmothers' and granddaughters' *Stimulation* is also significant, but negatively related ($r=-.288$; $p<.01$).

Intercorrelation between Ontological Orientation (RN-02) and Personal Values (SVS) in Groups of Grandmothers and Granddaughters

To compare two different tools used in the study, based on different kinds of evaluation – implicit and explicit – we analyzed correlations between ontological orientation (measured by RN-02) and personal values (SVS), separately for grandmothers and granddaughters. The results are presented in table 4.

While searching for the correspondence between personal values and ontological orientation we observed

that in both groups some positive as well as negative, weak and moderate correlations appeared.

The most significant correlations, which occurred in both groups, are between *religious orientation* (RN-02) and *Benevolence* and *Tradition* (positive relation) and *religious orientation* and *Self-direction* (negative relation).

The other observed intercorrelations are different for grandmothers and granddaughters. The most conspicuous relations which appeared only in the group of grandmothers were between *Theoretical orientation* and *Tradition* ($r=-.37$; $p<.01$) and *Self-direction* ($r=.41$; $p<.001$), where as we do not observe these correlations among granddaughters.

It is intriguing that in both groups there are no significant positive correlations between social orientation and personal values placed in the Self-Transcendence dimension. We expected that *Social orientation* would be somehow related to *Benevolence* and *Universalism* which were derived from the pro-social motivational domain (Schwartz, Bilsky, 1987).

Table 4
Intercorrelations between Ontological Orientations and Personal Values in Groups of Grandmothers and Granddaughter.

		Univ	Benev	Trad	Conf	Sec	Achiev	Pow	Hed	Stim	Self-d
Grandmothers	Theoretical	.07	-.05	-.37**	-.15	-.02	.04	-.00	.07	.07	.41***
	Economic	-.14	-.10	-.20	-.11	.08	-.08	.06	.09	-.18	.09
	Political	-.16	-.01	-.06	-.12	-.13	-.12	.07	-.07	-.15	-.17
	Social	.14	-.06	-.11	.13	-.08	.07	.15	-.07	.26*	-.02
	Religious	-.03	.23*	.54***	.07	.05	.03	-.14	-.03	-.18	-.28*
	Aesthetic	.14	-.15	-.08	.13	-.12	.04	-.08	.12	.29**	.13
Granddaughters	Theoretical	.13	-.08	-.17	-.13	-.19	-.09	-.01	-.08	-.11	.12
	Economic	-.00	.02	.01	.04	.08	.02	-.00	-.01	-.01	.09
	Political	-.05	.05	.08	.10	.24*	-.01	.20	.20	.01	-.10
	Social	-.05	.02	-.08	-.05	.08	.15	.05	.07	.13	-.04
	Religious	.01	.25*	.36**	.13	.03	-.14	-.23*	-.11	-.06	-.28*
	Aesthetic	-.03	-.17	-.16	-.09	-.22*	.03	.01	.05	.02	.15

*** $p < .001$ ** $p < .01$ * $p < .05$

Table 5
The Results of Multiple Regression Analysis for the “Global Differences in Ontological Orientations” between Grandmothers and their Granddaughters.

	Explanatory variables	t	p	β	SE β	R	R ² (R ² adjusted)
Model 1(a)	Demographic variables and self-assessed religiosity*						
	Grandmothers' level of education	-2.48	.015	-0.264	0.106	0.434	18.8%
	Granddaughters' level of education	-2.22	.029	-0.238	0.106		(15.6%)
	Granddaughters' self-assessed religiosity	-3.57	.001	-0.382	0.107		
Model 1(b)	Demographics variables and SVS included						
	Granddaughters' self-assessed religiosity	-2.767	.007	-0.290	0.105	0.431	18.6%
	Grandmothers' Tradition value (SVS)	2.849	.006	0.314	0.110		(15.3%)
	Grandmothers' Stimulation value (SVS)	1.954	.048	0.212	0.111		

* The following variables were considered: age, marital status, the level of education (years of formal education), residence, self-assessed religiosity and the age range between grandmother and granddaughter. The religiosity self-assessment was conducted on an 8-points scale in SVS.

Predictors of Grandmother-Granddaughter Values Convergence - Regression Analysis

As we can see from table 1 and 2 grandmothers and granddaughters differ significantly in almost all ontological orientations (except for *Aesthetic*), and in almost all personal values (except for *Universalism* and *Power*). A question arises: what kind of factors determine the scale of these differences and similarities? Some kind of measurement of global convergence between pairs – particularly grandmothers and their granddaughters – is therefore needed. We accepted that this measure would be the sum of absolute differences between grandmothers and granddaughters as shown in the results of RN-2002 and SVS.

Searching for an answer to the question of what could be the predictor of global convergence, we used a multiple regression analysis – firstly for the possible predictors in demographic factors and secondly for the extended list of predictors for the results of the complementary

method (SVS). It means that when trying to explain the degree of global convergence between grandmothers and granddaughters in ontological orientations we used the results of SVS (presented in table 5). In turn – while predicting the convergence of personal values we used the results of RN-02 (presented in table 6).

Model 1 (a) indicates that with the increase of the educational level of grandmothers and granddaughters and the growth of granddaughters' self-assessed religiosity, the global differences between grandmother's and granddaughter's ontological orientations decrease.

In other words - the more educated the grandmothers and granddaughters, and the more religious the granddaughters, the greater convergence can be expected between grandmothers' and granddaughters' ontological orientations.

The results presented in model 1 (b) show that the greater the granddaughters' self-assessed religiosity and the lower the grandmothers' results in such values as *Tradition*

Table 6
The Results of Multiple Regression Analysis for “the Global Differences in Personal Values” SVS between Grandmothers and their Granddaughters.

Explanatory variables	t	p	β	SE β	R	R ² (R ² adjusted)	
Model 2(a)	Demographic variables and self-assessed religiosity						
Granddaughters' self-assessed religiosity	-4.55	.000	-0.461	0.101	0.498	24.8% (22.9%)	
Grandmothers' self-assessed religiosity	3.16	.002	0.320	0.101			
Model 2(b)	Demographics variables and RN-02 included						
Granddaughters' self-assessed religiosity	-3.837	.001	-0.377	0.98	0.509	25.9% (23.9%)	
Grandmothers' religious orientation (RN-02)	3.341	.001	0.328	0.98			

and *Stimulation*, the greater the similarities in ontological orientation can be expected.

The results presented in model 2(a) and 2(b) are very similar and quite clear. The more religious the granddaughter is and the less religious the grandmother is (according to self-assessment and RN-02), the greater similarities (lower differences) can be expected between them when it comes to declared personal values (SVS).

The Role of *Stimulation* Value

As we can see from model 1b, grandmothers' *Stimulation* value is one of the factors explaining the convergence in ontological orientations between the granddaughter and grandmother. Exploring the role of *Stimulation* value we divided the group of grandmothers into two groups by using the median. As a result the similarities between the results of grandmothers and their granddaughters appeared much more distinctive in *Universalism* ($r=.51$; $p=.001$), *Achievement* ($r=.31$; $p=.049$) *Hedonism* ($r=.33$; $p=.03$) when the grandmothers with lower *Stimulation* value ($<Me$) were considered. In the group of grandmothers with higher *Stimulation* value ($>Me$) these inter-correlations disappeared.

Taking into consideration that *Stimulation* value becomes less important with aging, the relationship between the granddaughter and grandmother with a higher stimulation need could specifically influence the process of value transmission.

Discussion

Generally, grandmothers clearly differ from their granddaughters in ontological orientations – considered as an effect of implicit evaluation. The biggest differences can be observed between *Theoretical* and *Religious orientations*. The first ones are supposedly the effects of cohort (education has become more available and common among young women) as well as different life stages. In turn, religious orientation seems to be mainly the effect of life stages – religiosity becomes something of importance for people in the third stage of life, especially among women (Francis, Wilcox, 1996; Levin, Taylor, (1997).

Besides *Universalism* and *Power*, grandmothers and their granddaughters differ too in declared personal values in SVS – considered as a measure of explicit evaluation. In *Universalism*, both groups score relatively high ($M=4.3$ and $M=4.2$), while in *Power* similarly low ($M=2.3$ and $M=2.2$). Generally, the presence of the conspicuous differences in all other values between the two groups of women are not surprising – the effect of age as a factor strongly influencing personal values is well recognized (Schwartz, 2005).

More interesting than differences are convergences between the two groups in demonstrated orientations and personal values. Convergence of results would allow us to speculate about the transmission of world view and the criteria of evaluation within families and their members representing the following generations. We could hypothesize about possible prerequisites of such a transmission, its mechanisms, etc. For the time being, some synthetic information and useful hints provide us with the results of regression analysis.

Concluding Remarks

There are two decisive factors which determine convergence of ontological orientations and values between grandmothers and granddaughters, i.e. the level of education, and attitude towards religion and tradition. If considered dyads are better educated and have similar attitudes toward religion, other similarities are to be expected. It may be supposed that education and religion are two important transmitters of world view as well as personal values. In a sense, despite apparent differences, both include a good deal of ideology.

The *Stimulation* value seems to be an interesting factor which can moderate many social interactions (Sales, 1971) and may decide whether the relation is positively evaluated by participants. A grandmother's relatively higher *Stimulation* value of grandmother may negatively influence interaction between her and her granddaughter.

In future research one should control many more family variables, such as quality of the relationship and frequency of interactions, number of family members, and necessarily take into consideration the results obtained by parents.

The question also arises as to how grandfathers and their grandsons would score in the same, “replicate” research on values. Would the degree of convergence in men’s dyads be similar to the feminine dyads?

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