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Valued Choices And Chosen Values.

On The Dynamics Of The Relationship Between Values
Orientations And Family Formation.

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Abstract

Whether there is a role to play for culture, in general, and values, in particular in understanding the process of family formation is still subject to debate. We argue that the values-choices relationship constitutes a dynamic process. Values influence and are influenced by choices regarding living arrangement and parenthood. Panel data from a group of young women indicate that the choice between marriage and cohabitation, but especially the choice between independent living (in a single household) as compared to any co-residential union is influenced by values orientations. Values also proved to gain significance in understanding the subsequent transition to motherhood. Values adaptation to changing circumstances cannot be ignored. Marriage and motherhood imply further evolvment toward a more traditional family orientation. Autonomy preferences, on the other hand, clearly drop after marriage. Since adaptation of values to changing circumstances includes not only denial but also affirmation or reinforcement of initial values, we conclude that recognition and inclusion of the reciprocal relationship of values and choices is necessary in order to understand the process of family formation.

Introduction¹

'Predicting' a young adult's family formation was a fairly easy task² until the sixties since for a large majority of people the process followed a kind of blue-print : young people left their parental nest when they gained economic independence, they married and became parent. Since the sixties, however, this process has become complex -- or at least more diverse. The incidence of non-marital living arrangements such as cohabitation, independent living, and sharing has been rising. These types of residence do not only function as intermediate states between leaving the parental home and marriage; for a number of people they may very well prove to be an alternative end-state compared to the marital status. Not only have the routes of leaving home altered, the reversibility of the transition has also become an option (Goldscheider, Thornton & Young-DeMarco, 1993). Several explanations can be given for the emergence of these 'new' patterns. Some refer to the rising level of education during the sixties that prolonged the economic dependence on

¹ We like to express our gratitude to Prof. F.X. Kaufman and Prof. K.P. Strohmeier (Univeristät Bielefeld) and the Zentralarchiv für Empirische Sozialforschunk (Köln) for allowing to use the data (ZA-N 1736-38). The Research Council of the Free University of Brussels partially financed the program. Many thanks go to Prof. Dr. J. Hoem who guided me all along my Intensity Regression project. This article is based on my Ph.D. (Moors, 1997). Prof. Dr. R. Lesthaeghe was promoter. My special thanks go to him. I have always appreciated the opportunity he gave me to develop my ideas on the subject. His peculiar, inimitable way of motivating me has been indispensable.

² This statement is -- of course -- a figure of speech; a metaphor to stress the significance of the sixties as a turning-point in demographic history.

the family of origin and -- by the same token -- resulted in postponed marriage and parenthood. Rising levels of education among women also implied that the possibility of their economic independence has become a fact. Since women have little left to gain from marriage and motherhood, they seek independence through alternative living arrangements. This latter interpretation is well known as the heart of Gary Becker's argument (1981). Others claim that the tension young people experienced between the high consumption preferences they are raised in and the deteriorating opportunities on the labor market when they reached adulthood, can best explain why people postpone marriage and parenthood. This theory of relative economic deprivation is developed by Richard Easterlin (1976, 1980). Yet others refer to the changing cultural climate since the sixties as one of the explanatory forces (Preston, 1986; Lesthaeghe & Surkyn, 1988; and Moors, 1997). A climate that stresses gender equality, democracy and personal autonomy. Individual choice has become increasingly likely due to the technological innovation regarding contraception. Hence, the opportunity for ideational factors, such as values, to influence the decision making process has increased. This cultural argument is not left unspoken and whether there is a role to play for culture is still a matter of debate (Pollak & Watkins, 1993; and Kertzer, 1995). Even the more sociological approaches of Oppenheimer (1988, 1994) and England & Farkas (1986) tend to minimize the significance of the ideational components of culture. In Oppenheimer's opinion (1994) for instance, models that build upon the idea that norms and values are typically determinants of behavior are not very well suited for explaining fluctuations in demographic behavior -- especially when this idea is combined with a modernization argument. Moreover, sociologists who rely exclusively on the idea that values influence behavior -- and not vice versa -- face another empirical problem, namely, that there is little empirical research that actually tests the presumed causal effect. Again according to Oppenheimer, the little evidence that exists does not support the cultural argument. It goes without saying that Oppenheimer is right in arguing that the causal relationship between values and/or culture, on the one hand, and behavior, on the other, should not be assumed but tested. This is in fact what this article is about. What role is there to play for values? Do values influence the choices regarding family formation (i.e. valued choices)? And to what extent do changing circumstances due to these choices in turn affect values orientations (i.e. chosen values)? In this article we will present some evidence from a German panel study conducted in the eighties. Before that, we return to the question of the causal relationship of values and behavior.

On The Dynamics Of Values-Based Selection And Values Adaptation

Although we mentioned several types of explanation regarding changes in family formation, we will not adopt a theoretical approach of partial inclusion (cf. Lakatos, 1978). Such an approach implies that a researcher tries to maximize his own paradigmatic stance as compared with the possible significance of an alternative paradigm which is minimized. Instead we think that an eclectic approach focusing on a strategy of theory integration makes more sense. Rather than trying to 'capture' the central arguments of other theories in order to trivialize their meaning, different theories can be evaluated in terms of their relative contribution to the understanding of social phenomena. Such comparison may yield mutually exclusive propositions as well as consistent and complementary findings (Pollak & Watkins, 1993; Lesthaeghe & Moors, 1994; and Moors, 1997). Such a theoretical stance is also more appropriate if one agrees with those who argue that more interdisciplinary work is necessary (Hobcraft & Kiernan, 1995). Defining our position in this epistemological debate regarding the nature of theory is important, because we want to be sure that no one 'misreads' our argument. In stressing one specific factor of explanation namely, values orientations, we do not suggest that they constitute the governing principle that guides all action. Values, amongst other factors, are important though. However, we need to study the values-transitions relationship from a dynamic perspective for two particular reasons. First, we should give the cynical side in the values discussion at least the benefit of the doubt. After all, the cynical interpretation of the relationship states that values are merely post-facto rationalizations³ of choice and -- by consequence -- yield little explanatory power. Second and foremost, we agree with Oppenheimer that the unidirectionality of the relationship needs to be tested. Such a dynamic approach requires a design in which values are measured both before and after major choices are made or events occur. Only panel data allow to disaggregate the association of values and choices in values-based selection of choices versus values adaptation to changing circumstances due to these choices. Such data are rare, but three bodies of research are worth mentioning because they pertain to demographic issues : two American six-wave panel studies (a) the Detroit Metropolitan Area panel survey; (b) the National Longitudinal Survey of the High

³ Post-facto rationalization means that values function as cultural constructs which can be 'used' as justifications of previous behavior.

School Class of 1972; and (c) one Dutch three-wave panel study ⁴. The major findings from these studies may be summarized as follows ⁵. A recurrent argument and finding in the literature is that leaving the parental nest - in most cases the first demographic transition - exerts major ideational changes. To what extent the timing of this event and the type of new residence that is chosen is influenced by ideational factors, is less documented. The interpretations somewhat range from 'no influence' to a 'reasonable' influence. Our own position regarding values-based selection of the initial phase of family formation is that ideational factors such as values orientations form part of the set of criteria which are used to define -- in Oppenheimer's words -- a 'minimally acceptable match'. At the same time, however, there is reason to believe that values orientations should also be viewed as elements of a flexible script. After all, every decision regarding a new living arrangement involves 'significant' others, i.e. parents and partner. The uncertainty regarding a future partner particularly demands a margin for accommodation. But we also tend to agree with Askham (1976) who states that within a partnership people seek to develop or maintain a sense of personal identity as well as a sense of stability in the relationship. Adjustments of values orientations are likely to occur, but there are limits to compromises. How strong the values-based selection effect will be, is hard to predict. It depends on the theoretical perspective. Inglehart's generational theory (1977, 1990) clearly predicts that values-based selection will be strong, whereas Kohn's social stratification theory (1977, 1993) stresses the impact of current life conditions ⁶ on values -- hence focusing on the reversed relationship ⁷. The strength of the values-based selection effect on choices will also depend

⁴ These data-sets are analyzed and discussed in the following non-exhaustive list of papers : (a) Axinn & Thornton, 1992a, 1992b & 1993; Goldscheider, Thornton & Young-DeMarco, 1993; Thornton, 1992; Thornton, Alwin & Camburn, 1983; Thornton, Axinn & Hill, 1992; Thornton & Camburn, 1987; Thornton & Freedman, 1979; Thornton, Young-DeMarco & Goldscheider, 1992 and; Weinstein & Thornton, 1989. All articles pertain to family issues. (b) The publications based on the NLS'72 data are quite diverse in terms of subjects. On non-family issues : Lyson (1984); Anderson (1985); Davis (1986); and McClelland (1990 a+b); two articles on family issues drew our attention : Goldscheider & DeVanzo (1989); and Clarkberg, Stolzenberg & Waite (1993); (c) Liefbroer, Gerritsen & de Jong Gierveld, (1993 & 1994); and Beets, Liefbroer & de Jong Gierveld, (1994) also research the relationship between ideational factors and living arrangements and/or parenthood.

⁵ A more detailed overview of findings from these studies is presented in Moors (1997).

⁶ Kohn focuses on working conditions, but in Moors (1997) we discussed that conditions should not be restricted to the occupational sphere of life.

⁷ To some extent, the process of values-based selection of choices implies that values are fairly stable characteristics of individuals. This is the core of the Inglehart-thesis which predicts that cultural change takes place because younger generations clearly differ in values orientations from the older generations because the former were raised in different circumstances. Hence, conditions during childhood and adolescence define people's values orientations. The Kohn-thesis, on the other hand, claims that values reflect the current conditions of life as they are defined by work relationships. If conditions change, values will change. In this view 'stability' of values is not an issue, but values adjustment.

on the relative impact of early versus late influence of socialization factors⁸. As Alwin & Thornton (1984) argue, the latter is extremely difficult to ascertain - if not impossible. As far as subsequent transitions in family formation are concerned, in particular, the transition to parenthood, the literature suggests that values may gain significance in explaining this transition. Values orientations prior to this stage in life are the outcome of early values socialization, as well as adaptation or accentuation within the union. With 'accentuation' we mean that values orientations have become more fixed or --at least -- less flexible. Becoming a parent in itself changes a lot of conditions in life, hence additional adaptation of values after the transition are very likely to occur⁹.

Data, Methodology And Operationalization Of Values Dimensions

Our research question regarding the recursive relationship of values and choices can only be answered with panel-data. The panel survey we analyzed come from the 'Familienentwicklung in Nordrhein-Westfalen' project conducted by the 'Institut für Bevölkerungsforschung und Sozialpolitik' of the University of Bielefeld, who first questioned a random sample of 2620 women aged between 18 and 30 years old in 1982. Two additional waves were conducted with a time spacing of approximately two years¹⁰. Whereas the panel-studies discussed in the previous section all 'suffer' from a limited number of attitudinal questions -- especially in the first interview -- the Familienentwicklung-study at least includes a fairly large number of attitudinal questions. This is presumably the most attractive feature of this study. The first interview contains six sets of questions and a total of 100 items on the following topics : (a) opinions about household, family and occupation; (b) judgment of important things in life; (c) opinions about marriage and partnership; (d) opinions about children; (e) opinions about the family and

⁸ Inglehart stresses the impact of early socialization, whereas Kohn's concept of socialization fits the notion of lifelong openness to change (see Alwin, cited in van Rijsselt, 1991).

⁹ Adaptation of values includes two different processes. First, values may be reinforced or more firmly held after the transition. In this case the 'change' may be homeostatic in nature. Second, values orientations may be reversed and/or denied after major changes in the life of people have occurred. Hence, values change is always 'observed'.

¹⁰ The drop-out rate between waves is considerable. Part of this drop-out can be explained by the fact that the researchers had to ask the respondents at the end of the interview -- i.e. due to the privacy protection law -- to sign a declaration in which they agreed to participate in following waves, allowing the researchers to store the address of the respondent. A more detailed analysis of the effect of drop-out on the principal relations we present in this paper, has been conducted and reported in Moors (1997). The most important finding from this analysis was that the interpretations of the relationships are reasonably immune to selection biases.

partnership; (f) judgment of what is important with regard to children. The majority of issues from the first five sets, however, refer to concepts about the family and household role ¹¹. A second cluster of issues researches opinions about the economic role of the woman and her preference for autonomy. Hence, the attitudes are rather domain specific. Unfortunately not all the items are retained in the subsequent interviews. In the second interview round only a selection of 54 items out of the first five sets of questions were retained; and by the third interview round the number of items had dropped to 15 selected from three sets. The exploration of the dimensional structure of the attitudinal questions takes place in multiple stages. Our point of departure is the list of 54 items which has been asked in the first and second interview. A two-stage principal component analysis is performed, including the whole sample and the items of the first interview. From five separate principal component analyses, twelve summated scales were constructed, excluding items which reduced the (alpha) reliability of the scales ¹². These twelve summated scales, in turn, were submitted to a principal component analysis, revealing three dimensions - one of which only pertained to a single summated scale. Since two other summated scales reduced the reliability of the dimensions, these scales, together with the scale that solely defined the third dimension, were excluded from the final analysis reported in table 1.

Table 1. Second-stage principal component analysis of the summated scales measured at the first interview of the panel study (source : the 'Familienentwicklung in Nordrhein-Westfalen' panel study 1982-84-86).

Variable	mean (range 0-1)
Scale 1 'household as a priority and duty of the wife'	0.37
Scale 3 'importance of family life'	0.72
Scale 4 'importance of personal freedom and independence'	0.58
Scale 5 'importance of paid work'	0.74
Scale 6 'importance of money'	0.59
Scale 9 'subordination to the man'	0.51
Scale 10 'children as giving meaning to life'	0.43
Scale 11 'responsibility as a parent'	0.70
Scale 12 'traditional opinion about marriage'	0.54

Number of Cases = 2386

¹¹ Remember that the panel only consists of women aged 18 to 30 at the time of the first interview (cf. infra).

¹² For clarity sake, we only report the second stage of our analyses regarding the operationalization of values dimensions. A full report of our procedure is presented in Moors (1997). The first stage of the analyses includes the operationalization of attitudinal scales which are used in the second stage to define the values dimensions. Hence, values are reflected in a set of attitudinal scales (i.e. generalized attitudes).

Table 1. Continued ...

Correlation Matrix:

	Scale 1	Scale 9	Scale 12	Scale 3	Scale 4	Scale 5	Scale 6	Scale 10	Scale 11
Scale 1	1.00								
Scale 9	0.42	1.00							
Scale 12	0.43	0.41	1.00						
Scale 3	0.43	0.36	0.41	1.00					
Scale 4	-0.31	-0.24	-0.23	-0.35	1.00				
Scale 5	-0.18	-0.05	-0.03	-0.13	0.41	1.00			
Scale 6	-0.02	0.02	0.04	-0.08	0.27	0.34	1.00		
Scale 10	0.47	0.35	0.46	0.46	-0.25	-0.11	0.01	1.00	
Scale 11	0.35	0.34	0.41	0.51	-0.21	-0.06	-0.07	0.59	1.00

Rotated Factor Matrix:

	Factor 1	Factor 2
Scale 10	0.78	-0.04
Scale 11	0.73	-0.05
Scale 12	0.73	0.04
Scale 3	0.72	-0.20
Scale 1	0.70	-0.16
Scale 9	0.65	-0.02
Scale 5	-0.05	0.80
Scale 6	0.09	0.73
Scale 4	-0.35	0.68
%variance	37.60	17.20

The six scales which correlate substantially with the first dimension indicate different aspects of 'traditional family values' (dimension 1), whereas the three remaining scales correlating with the second dimension refer to 'personal and economic independence or autonomy' (dimension 2).

Two types of demographic transitions are studied : choices regarding living arrangements - including union formation - and the transition to motherhood. Ideally, we need an event history approach including information about every type of demographic event that occurred and its timing. Unfortunately, a complete history of living arrangements is not asked in the 'Familienentwicklung' project; only current status and - to some extent - its timing. But this information is asked in each of the three interviews. On each occasion, it was possible to differentiate between four types of living arrangements, i.e. living in the parental home, living independently, cohabiting and married. For both types of union formation, the timing of this event is measured. Married respondents also indicated the

period of cohabitation with the partner before they married. This allowed us to make a crucial distinction between those who went through a period of cohabitation before marriage and those who did not. Since there are at most two years between two interviews, we may assume that for the majority of the respondents who were not in a co-residential union at the time of the first interview, we get a fair impression of their union formation history. However, we cannot exclude the possibility that women who indicate that they married between two interviews without prior cohabitation with their husband, did not experience a period of cohabitation with another partner. Similarly, we do not know whether the cohabitation status achieved between two interviews is also the first transition into a union¹³. Only information about the current relationship (partner) is available. Such situations are probably rare since two transitions with two different partners should have taken place in a period of two years. A more serious drawback is the fact that we do not have any information about the experience of living independently if it was not stated likewise as a current state of living arrangement at the time of the interview; nor do we have any information about the timing of the leaving of the parental nest. The major consequence of this lack of information is that the differences between alternative pathways out of the parental home are not fully reflected in our analyses. The measurement of the occurrence and the timing of a first birth is evidently less problematic.

Given the nature of the data, the values-based selection effect of choices regarding alternative living arrangements and motherhood are researched by means of proportional hazard regression¹⁴. This method allows us to take the time-varying characteristic of the dependent variables into account, as well as time-varying covariates - in the case of the transition to motherhood - by weighing the occurrence of an event to its exposure time. The exposure time is the time during which an occurrence is at risk. We included the largest possible observational period for any respondent, namely, four years for those respondents who participated in the three waves, two years for those who only participated in the first and second round. The total number of respondents who participated at least in two consecutive interviews equals 1464; 627 women were not in a union and 832 women had no children at the time of the first interview. The latter two categories constitute the subsamples of our analyses regarding co-residential union formation and the transition to motherhood. Table 2 presents an overview of the variables in these analyses.

¹³ For married people we know whether it is the first marriage.

¹⁴ The program is called RocaNova and is developed by Statistics Sweden. RocaNova only allows for categorical covariates, hence values dimensions are recoded to four categories.

Table 2. Overview of the variables in the analyses regarding values-based selection. (source : the 'Familienentwicklung in Nordrhein-Westfalen' panel study 1982-84-86).

Dependent variables

A.		Union formation rate (cohabitation or marriage)	Date of transition or censoring
	no transition	/	last interview
	transition to cohabitation	X	cohabitation
	transition to cohabitation and marriage	X	cohabitation
	transition to marriage without prior cohabitation	X	marriage
B.		Cohabitation rate (treating marriage as a competing risk)	Date of transition or censoring
	no transition	/	last interview
	transition to cohabitation	X	cohabitation
	transition to cohabitation and marriage	X	cohabitation
	transition to marriage without prior cohabitation	/	marriage
C.		Marriage rate (treating cohabitation as a competing risk)	Date of transition or censoring
	no transition	/	last interview
	transition to cohabitation	/	cohabitation
	transition to cohabitation and marriage	/	cohabitation
	transition to marriage without prior cohabitation	X	marriage
D.		Marriage rate (ignoring cohabitation)	Date of transition or censoring
	no transition	/	last interview
	transition to cohabitation	/	last interview
	transition to cohabitation and marriage	X	marriage
	transition to marriage without prior cohabitation	X	marriage
E.		Relative risk of pregnancy	Date of transition or censoring
	no transition	/	last interview
	transition to pregnancy ¹⁵	X	- 7 months date of first birth - 7 months

/ = censoring

X = transition

¹⁵ In Moors (1997) we explored alternative coding of the dependent variable 'motherhood', i.e. focusing on the date of the first birth itself, and on the date of the 'assumed' knowledge of the pregnancy. The latter is the one reported in this paper. We assumed knowledge of the pregnancy at two months after conception. Theoretically the latter indicator is to be preferred since it is closest to the 'decision' to become a parent. In the case of the analyses using the date of the first birth as the dependent variable, the estimation of the impact of values is partially biased since the knowledge of the pregnancy could have changed a woman's values -- hence reversing the causation. However, the impact of values on the transition to 'motherhood' did not defer depending on the type of coding. As far as values are concerned, the difference in coding has only theoretical significance.

Table 2. Continued ...**Independent variables in analyses A to D**

- values dimensions : 'Traditional Family Values' and 'Autonomy' measured at first interview
- control variables :
 - fixed covariates : 'age', 'level of education', 'occupational position', and 'type of living arrangement' (i.e. living in parental home or alone) measured at first interview
 - time-varying covariate : 'time since first interview'

Independent variables in analysis E

- values dimensions : 'Traditional Family Values' and 'Autonomy' measured at first interview
- control variables :
 - fixed covariates : 'age', 'level of education', and 'occupational position' measured at first interview
 - time-varying covariates : 'duration of the marriage'; 'duration of the union'; and 'time since first interview'

We already mentioned that in the third wave of the panel study, the number of attitudinal questions had dropped to 15. This causes some problems regarding the research of values adaptation to changes in family situation between interviews. After all, the aforementioned values dimensions only apply to the first and second interview. The effect of changing circumstances on values between the first and second round could be analyzed fairly straightforwardly by means of multiple classification analyses (cf. *infra*). Change between the first and the last interview could only be analyzed on the basis of shorter versions of the values dimensions mentioned in this paper. Since the results of these analyses do not contradict, but merely complement and reaffirm the findings from the analyses researching the values change between the first and second interview, we will only discuss the latter. The 'dependent' variables in these analyses are the values dimensions measured at first and second interview¹⁶. Two particular independent variables draw our attention, i.e. living arrangements and motherhood. In both cases, respondents are categorized on the basis of their particular combination of states at the first and second interview. Age, level of education and occupational status measured at the time of the first interview function as additional control variables. A list of variables in these analyses is reported in table 3.

¹⁶ In this case, we used the original (non-recoded) principal components (cf. footnote 13).

Table 3. Overview of the variables in the analyses regarding values adaptation. (source : the 'Familienentwicklung in Nordrhein-Westfalen' panel study 1982-84-86).

Dependent variables : values dimensions 'Traditional Family Values' and 'Autonomy' measured at first and second interview

Independent variables : motherhood & living arrangements

coding frame :

First wave	Second wave
Motherhood	
no	no
no	yes
yes	yes
Living arrangements	
parents	parents
parents	alone
parents	cohabiting
parents	married
alone	parents
alone	alone
alone	cohabiting
alone	married
cohabiting	parents/alone
cohabiting	cohabiting
cohabiting	married
married > 4 years	
married 2-4 years	
married < 2 years	
other	
missing	

Other independent (control) variables : age, education and occupational status at first interview

Our findings are reported in two separate sections. First we discuss values-based selection effects, then values adaptation.

Values-Based Selection Of Choices Regarding Family Formation

The principal research question in this section focuses on the effect of the two values dimensions, i.e. 'traditional family values' and 'autonomy', on the family formation process. Table 4 reports observed and adjusted relative risks (Exp(B)) of entering a new state for each category of the values dimension as compared to the baseline, which is the least 'traditional' category (i.e. the lowest level of 'traditional family values' and the

highest level of 'autonomy'). We also included the interaction effect of these values dimensions as far as the transition to motherhood is concerned. No significant interaction effect was found in the other cases. Both observed and adjusted relative risk are reported to investigate the extent to which the values-choices relationship is resistant to the effects of socio-demographic covariates.

Table 4. Relative risks of alternative living arrangements and motherhood by values orientations (source : the 'Familien-entwicklung in Nordrhein-Westfalen' panel study 1982-84-86).

	A		B		C		D	
	Union formation rate (cohabitation or marriage)		Cohabitation rate (treating marriage as a competing risk)		Marriage rate (treating cohabitation as a competing risk)		Marriage rate (ignoring cohabitation)	
	observed Exp(B)	adjusted Exp(B)	observed Exp(B)	adjusted Exp(B)	observed Exp(B)	adjusted Exp(B)	observed Exp(B)	adjusted Exp(B)
Factor 1 'Traditional family values'					***		**	
(*) first quartile	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
second quartile	1.12	1.07	1.17	1.20	1.00	0.83	1.20	1.09
third quartile	1.40	1.26	1.04	1.01	2.18	1.77	2.19	1.90
fourth quartile	1.34	1.03	0.93	0.75	2.20	1.45	1.67	1.29
missing values	0.97	0.85	0.91	0.78	1.10	0.94	1.40	1.15
Factor 2 'Autonomy'								
first quartile	1.03	1.19	1.28	1.50	0.62	0.69	0.92	1.08
second quartile	1.31	1.37	1.30	1.35	1.32	1.30	1.53	1.50
third quartile	0.96	0.94	0.89	0.79	1.08	1.15	1.25	1.31
(*) fourth quartile	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
missing values	1.05	1.08	1.08	1.10	1.02	1.04	1.15	1.19

(*) = baseline (reference category)

* = significantly < .00
 ** = significantly < .05
 *** = significantly < .10

adjusted values : controlled for age, education, occupational status, and type of living arrangement at first interview, and duration (i.e. time since first interview)

	E		
	Relative risk of pregnancy		
	observed Exp(B)	adjusted Exp(B)	adjusted Exp(B)
Factor 1 'Traditional family values'			
(*) first quartile	1.00	1.00	1.00
second quartile	1.90	1.98	1.49
third quartile	3.37	3.33	2.20
fourth quartile	4.08	3.67	2.47
missing values	1.77	1.46	1.20
Factor 2 'Autonomy'			
first quartile	2.49	2.61	1.88
second quartile	1.82	1.65	1.13
third quartile	1.42	1.44	1.33
(*) fourth quartile	1.00	1.00	1.00
missing values	1.52	1.50	1.21

(*) = baseline (reference category)

* = significantly < .00
 ** = significantly < .05
 *** = significantly < .10

(a) adjusted values : controlled for age, education and occupational status
 (b) adjusted values : additional controlled for duration of the union and duration of the marriage

Interaction effect (adjusted Exp(B))

Traditional family values: low (1, 2, 3, 4), high (4, 3, 2, 1)

Autonomy: low (1, 2), high (3, 4)

significance < .01
 (*) = baseline (reference category)

note : number of categories recoded to 5 (original coding mentioned outside the frame) values adjusted for all other independents

The overall impression which one gets from table 4 is that the values dimensions have little impact in terms of explaining the union formation process (analyses A to D), but values gain significance with regard to the transition to motherhood (analysis E). As far as the union formation process is concerned only 'traditional family values' influences the timing (D) and preference (C) for marriage: higher levels of traditional family orientation increase the risk of marriage. Controlling for socio-demographic characteristics reduces the differences in relative risks. The pattern of the highest category on traditional family values, however, deserves our attention : the most traditional women are less likely to have made a transition to any type of union than the women of the third quartile of the dimension. The fact that the most traditional category has lower relative risks of both cohabitation and marriage in the competing risk models than the third category could very well be indicative of the fact that 'traditional family values' are functioning as a more selective criterion in terms of choosing a partner. In Oppenheimer's words : these women have not yet found a partner who fits their 'minimum criteria for an acceptable match'. On the other hand, this pattern of associations may as well be indicative of the fact that the impact of values at the onset of the family formation process is rather modest since a margin of values change ought to be intrinsically possible in order to make the transition. Further indication of the latter interpretation's cogency comes from the argument that the articulation of values regarding family formation probably takes place in a period of the life-cycle in which these values are problematized. This means that people need to be confronted with the issue in order to develop clear values orientations. With the kind of data that we are analyzing it is difficult to decide which of these arguments is the most crucial, since the decision-making process by itself is not observed. Qualitative research is necessary to resolve this discussion. In any case, what these results indicate is that it is likely that no values orientation is so strongly held that it would either determine the timing of the union formation or that it would influence the first choice regarding co-residential union. The very fact that values orientations influence the transition to motherhood -- as is illustrated in analysis E -- partially provides an answer to the question of the significance of the aforementioned arguments. It suggests that values adapt to the changing circumstances surrounding union formation and that values gain significance in understanding subsequent demographic transitions. By the same token this finding gives credit to the argument that values socialization is not completed with -- what is generally considered as -- the end of the 'formation' years (i.e. the end of adolescence). The impact of values on motherhood is

quite impressive. Controlling for age, education and occupation changes little as far as the relative risks are concerned. Only the contrast between the two more traditional categories of family values is somewhat reduced. The fact that the union formation and marital history reduces the differences in relative risks, but does not completely account for the observed impact of values on motherhood, however, indicates that values held prior to any demographic transition affect the transition to motherhood. Values may very well make little difference in contrasting cohabitation and marriage as an initial choice. However, if we take into account that both categories are still quite heterogeneous in terms of the preferred end-state of the family formation process, then values prove to be significant. More precisely: marriage may have a different meaning for different persons. For the more traditional family-oriented women it is probably an expression of their desire to start a family and to have children. For others, marriage may have a symbolic or a romantic meaning. Hence, only if we include the subsequent transition to motherhood, the 'true' relationship with values is observed. The significance of values orientation in explaining the transition to motherhood is even more plain to observe when we combine both values dimensions, i.e. the interaction effect. The contrast between the most 'emancipated' category of women, i.e. those who are low on 'traditional family values' but high on 'autonomy', and the other categories - especially the three other 'extreme' categories - is remarkable. Being traditional on one of the two values dimension - i.e. high on 'traditional family values' or low on 'autonomy' - is sufficient enough to have a risk factor which is 2.5 or 3 times as high as the most emancipated category (the baseline). The difference between the former intermediate categories and the most traditional category which combines a traditional family orientation with low autonomy aspirations is less pronounced; the risk increases to 3.8. Taken together, our findings suggest that if values influence the choices regarding family formation, it is in terms of 'desired' end-state of the family formation process. That values are shaped in the process has also become obvious. The following section more explicitly deals with the question of values adaptation.

Values Adaptation To Changes In Family Situation

The question whether values orientations are influenced by life-cycle changes regarding family formations is open-ended for two reasons. First, at the theoretical level there is as much reason to believe that values will adapt as there is to believe that values are fairly

resistant to changing circumstances. Second, at the empirical level the question is rarely explicitly researched and the little empirical evidence we were able to find (Moors, 1997) is not decisive. This section explicitly focuses on the impact which changed family situations, in terms of living arrangements and children, have on the two values dimensions discussed in the previous section. A common strategy to research values adaptation is to focus on the *change* in values orientations¹⁷. Usually this is done by including the indicators of change in family situation between the interviews in the analysis explaining the values orientation measured at the second interview and controlling for the values orientations as well as for background indicators measured at the first interview. This approach has one disadvantage: the connection with the relative position on the initial values dimensions is obscured. Thus, if two categories experience opposing changes, e.g. one category becoming more traditional and the other less, it is important to know whether this divergent trend implies that there is a growing tendency to diverge or rather that the initial differences between the two categories are reduced. For this reason, we choose another strategy. Both the values orientations measured at the first interview and at the second interview are analyzed as 'dependent' variables including the indicators of change in family situation, i.e. motherhood and living arrangement, as 'independents', and age, education and occupational position measured at the first interview as control variables. We have put the terms 'dependent' and 'independent' between inverted commas since in the analyses of the values dimensions measured at the first interview the causality applies of course in the other direction. By comparing the analyses of the same values dimensions but measured at different times we can discuss changes without losing the information about the initial differences in values orientations prior to the transitions. Our approach has a second advantage since we included the respondents who were already in a co-residential union at the time of the first interview. For those who were cohabiting we gain information on the question of values-based selection of subsequent changes in living arrangements. Especially the transition to marriage is important in that respect. Married respondents were differentiated according to the duration of the marriage¹⁸. Furthermore, we retained the

¹⁷ See for instance Axinn & Thornton (1993); Beets, Liefbroer & de Jong Gierveld (1994); and Waite, Goldscheider & Witsberger (1986).

¹⁸ We did not focus on the issue of divorce since it pertains to - at best - 32 cases. Studying the breaking-up of a cohabitation is even more problematic since our information is incomplete (cf. *infra*). The categories of singles (living independently) who moved to the parental home or who got married were retained irrespective of their small number of cases because they were included in the previous analyses. However, their 'changes' should be interpreted with care.

distinction between respondents living in the parental home and living independently. Since the values dimensions may be considered as quasi-continuous indicators and the independent indicators as nominal or ordinal, multiple classification analysis is an appropriate technique.

Table 5. Multiple classification analyses of the values dimensions (standardized values) by indicator of change in family situation, controlling for socio-demographic characteristics (source : the 'Familienentwicklung in Nordrhein-Westfalen' panel study 1982-84-86).

A. The impact of changes in living arrangement

First wave	Second wave	Number of cases	'Traditional family values' measured at :		'Autonomy' measured at :	
			First wave	Second wave	First wave	Second wave
Living arrangement			*	*	*	*
parents	parents	249	0.06	0.01	0.32	0.41
parents	alone	58	-0.23	-0.30	0.40	0.46
parents	cohabiting	39	-0.01	0.02	0.22	0.23
parents	married	38	0.08	0.46	0.28	-0.22
alone	parents	17	0.16	-0.18	0.05	0.06
alone	alone	81	-0.56	-0.57	0.35	0.33
alone	cohabiting	28	-0.22	-0.41	0.15	0.37
alone	married	14	0.21	0.28	0.25	-0.05
cohabiting	cohabiting	43	-0.41	-0.59	0.08	0.39
cohabiting	married	27	-0.15	0.35	0.31	0.16
married > 4 years		300	0.34	0.33	-0.41	-0.54
married 2-4 years		112	0.40	0.20	-0.38	-0.50
married < 2 years		104	0.25	0.35	-0.36	-0.44

Note : figures are adjusted values (controlling for age, education and occupation measured at wave 1)

B. The impact of the transition to motherhood

First wave	Second wave	Number of cases	'Traditional family values' measured at :		'Autonomy' measured at :	
			First wave	Second wave	First wave	Second wave
Children			*	*	*	*
no	no	702	-0.08	-0.13	0.07	0.04
no	yes	84	0.07	0.24	-0.21	-0.49
yes	yes	431	0.31	0.34	-0.22	-0.23

Note : figures are adjusted values (controlling for age, education and occupation measured at wave 1, and type of living arrangement (analyses A))

* = significant < .01

** = significant < .05

Overall the 'autonomy' values dimension is the more prone to adaptation than the 'traditional family values' dimension. This is also illustrated by the fact that the mean of

the absolute difference of the respondents' score on each dimension measured at first and second interview is higher in the case of 'autonomy' (i.e. .83 standard deviation) than of 'traditional family values' (i.e. .68 standard deviation). Moreover, if 'traditional values orientations' change, the change can be interpreted as an affirmation of initial differences. In the previous section we have discussed that 'traditional family values' slightly increase the likelihood of choosing marriage. Irrespective of the type of living arrangement at the time of the first interview, i.e. living in the parental home (parents), in a single household (alone), or cohabiting, marriage increases the level of traditional orientation to the level of those women who married prior to the first interview. The opposite trend is observed for those women who entered or remained in a cohabitational union. A similar pattern is observed as far as motherhood is concerned. Women who became parent between the first and second interview were already more traditional family oriented than those who remained childless, and by the second interview they have narrowed the gap with those women who were parent prior to the first interview. Whereas the changes in 'traditional family values' reflect affirmation of prior differences, most changes in 'autonomy values' should be interpreted as denial. Marriage in particular implies a denial of initial levels of 'autonomy values'. In the first interview, women who marry afterwards even value 'autonomy' to a slightly higher degree than women who started or entered cohabitation. A woman's urge for 'autonomy', however, considerably drops after gaining security in and through the marriage¹⁹. Since the level of autonomy continues to drop the longer a marriage exists, it is obvious that values adaptation as far as 'autonomy' is concerned is rather strong. A denial of 'autonomy values' is not observed in the case of motherhood. What is remarkable though, is the fact that women who became parent between the two interviews are as 'autonomy values' oriented at the time of the first interview as the category of women who were already mothers. Two years after the first interview the former category is even the least likely to value 'autonomy'. Presumably the identification of women with a traditional domestic role is highest just after the transition to motherhood. Afterwards 'autonomy' preferences again increase to some extent²⁰.

Table 5 also allows us to rephrase the question about values-based selection in terms of a transition which has been left unmentioned in the previous section, viz., the

¹⁹ Paraphrasing the 'traditional' motivation to marry according to G. Becker.

²⁰ Waite, Haggstrom & Kanouse's analyses (1986) also indicate that career orientations drop after parenthood, but increase once children get older.

transition to living independently ²¹. Those who left the parental nest to live independently (in a single household) were the least 'traditional family values' oriented and held the highest preference for 'autonomy' in the first interview and continued to evolve in that direction afterwards. This information is complemented by the fact that those women who were living independently at each of the interviews were the least likely to be traditional and the most likely to value 'autonomy' at the time of the first interview, and their orientation remained fairly stable. These findings are the more remarkable for being observed after controlling for the educational level and the occupational position of the women - the two key variables in Becker's explanation of why women show an increasing propensity not to engage in a co-residential union. Our analyses suggest that an 'autonomy' and 'non-traditional family' *values orientations* of women as such are crucial.

A final remark has to be made since the analyses presented in table 5 neglect one important issue, namely the issue of individual stability. The analyses merely indicate adaptation processes at the categorical level. If the relative position of a category on a values dimension has not changed over time compared to another category whose position had changed, this does not necessarily imply that the respondents of the first category are more stable in their values orientations than the respondents of the latter category. Aggregate stability is not incompatible with individual change since the former may as well be the outcome of individual changes in opposite directions. For this reason we operationalized the absolute difference in scores for the values dimensions measured at the first and second interview. The effect of the independent variables -- as listed in table 5 -- on these indicators were tested by means of multiple-classification analyses. None of the independent variables were significantly related to the indices of absolute differences in values orientations over time. Hence, the level of change in values orientations does not depend upon the family formation transitions we studied. Family formation *structures* the way values orientations change, but has little influence on the *absolute level* of the change.

²¹ Since we lack information about the timing of the leaving of the parental home a hazard regression model was impossible.

Conclusion

If values would merely adapt to changing circumstances, then arguing for including values as part of culture into a theoretical framework that predicts or explains family formation would hardly be useful. Our research question originated from this fundamental critique of Oppenheimer. We stressed the dynamics of the relationship : do values influence choices regarding family formation, and to what extent are values influenced by the changing circumstances due to family formation? Panel data from a group of young women, aged 18 to 30, were analyzed in order to provide some evidence.

The choice between cohabitation and marriage was only slightly influenced by 'traditional family values'. 'Autonomy values' were unrelated. However, since the most traditional category was the least likely to have made a transition to any co-residential union we argued that two alternative interpretations were possible. Either 'traditional family values' function as a more restrictive or selective criteria in choosing a partner, or values in general have little influence in the initial phase of the transition since a margin of accommodation (i.e. values change) is necessary in order to make the transition. The choice between living independently (in a single household) and a co-residential union, on the other hand, is influenced by values. Women who value 'autonomy' and are not 'traditional family' oriented prefer the independence of a single household. Furthermore, we found that values gained significance in explaining subsequent transitions such as motherhood. Irrespective of prior choices regarding their living arrangement, the most 'emancipated' category of women, i.e. high on autonomy values and low on traditional family values, were the least likely to become parent. The fact that prior choices of living arrangement only partially explained the values-motherhood relationship indicates that values orientations -- at this stage of the life-cycle -- are the outcome of early socialization as well as of adaptation to the process. The latter finding also indicates that even values adaptation to changing circumstances may attribute to our understanding of family formation. The 'change' in values orientations after family formation may affirm or reinforce initial values orientations. By consequence, values may gain significance in the process and become a kind of 'cultural cement' which consolidates choices. Our findings regarding the adaptation of values are significant in that respect. Women who married and became mother clearly continued to evolve toward a more 'traditional family values' orientation. At the same time, marriage implied a denial of initial levels of 'autonomy values'. Entering or

remaining in a cohabitational union or a single household implied a continuation or further orientation toward a less 'traditional family' orientation and higher levels of autonomy. Taken together, our findings have demonstrated that arguing for including 'values' -- as part of culture -- in explaining and understanding family formation does make sense, as long as the dynamics of the relationships are taken into account.

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