

Deviant societal attitudes and civic knowledge by 13 or 14 years old children living in different family forms? A cross-national analysis.

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Abstract

This paper focuses on a societal consequence of parental divorce and/or separation: the attitudes of their children towards society. There might be different mechanisms underlying the possible relation between parental divorce and the attitudes of their children, such as: 1. Insecure attachment induced by parental conflicts and divorce. 2. Restructuring of the parental gender-roles in the single-parent-family. 3. Imbalance between gendered values and attitudes in single-father and single-mother families. 4. Interactions between stressful events and genes functioning. This paper uses data from the International Civic and Citizenship Study (ICCS) conducted by International Educational Association (IAE) in 2009. It tests civic knowledge and civic attitudes and civic participation of 13 or 14 year old students across 38 countries in all the continents. In this paper we use only the 25 European countries. In this paper we use the following indicators of civic knowledge and attitudes: civic knowledge, trust in civic institutions, positive attitudes towards own country, equal rights for all ethnic groups, positive attitudes towards gender equality, support for democratic values. We can distinguish between 11 family-forms: two-parent family; single-mother; mother & step-father; single-father; father & step-mother; grandparents; mother & grandparents; father & grandparents; siblings; mother & step-mother; father & step-father. The analysis shows clear and significant differences between the civic knowledge and attitudes of 13 or 14 year old students, living in a two-parent family on the one hand and the civic knowledge and attitudes of 13 or 14 year old students, living in other family forms, irrespective of the country of test, and also after control for parental socio-economic background.

1. Introduction

Until today the sociological research on the effect of parental divorce on their children is restricted to aspects of the well-being of these children: educational performance, psychological well-being, health, marital and relational behaviors, divorce risks, etc. Interesting as these individual consequences of parental divorce are, they are confined to the individual variation and do not necessarily influence society as a whole. But cross-national research that compares the effects of parental divorce on some aspects of the well-being of these children touches upon the societal consequences of divorce in modern society. Pong, Dronkers & Hampton-Thompson (2003), Garib, Martin Garcia & Dronkers (2007) and Dronkers & De Lange (2012) showed that the effect of parental divorce on educational performance was stronger in societies with higher divorce-levels. Härkönen & Dronkers (2006) showed that divorce is more common among lower educated women in societies with higher divorce-levels, while divorce is more common among higher educated women in societies with lower divorce-levels. Dronkers & Härkönen (2008) showed that overall higher levels of parental divorce in society increase the divorce risks in that society, irrespectively whether the parents of the respondents are

divorced themselves. Pong (1997; 1998) and Sun (1999) both found for the USA that family disruption has a negative contextual effect on children's academic achievement, irrespective of the divorce of their parents: schools with a large concentration of single-parent-families are usually characterized by less social relations between the parents consequently children's educational performance is negatively affected by this fact, when compared to the educational performance of children from schools with a smaller concentration of disrupted families. De Lange, Dronkers & Wolbers (2013) showed that this contextual school-effect of divorce also exists in nearly all modern societies. Using pooled PISA 2000 and 2003 data they find that attending a school with higher proportion of children from single-parent-families affects the educational performance of all children negatively, but children from single-mother families are particularly harmed by attending such schools.

We can derive from those studies that parental divorce and its effects vary clearly by context and that parental divorce might have wider societal consequences than individual variation of the well-being of the children of divorced parents.

This paper focus is on such a societal consequence: the attitudes of children towards society. Empirical studies of the relations between parental divorce and the attitudes about (aspects of) society of their children are not available. One will not find any references to attitudes of children of divorced parents in the well-known review of Amato (2000). The only attitudes, which are sometimes studied in relation with parental divorce, are gender-role attitudes (Kiecolt & Acook, 1988; Wright & Young, 1998; Lont & Dronkers, 2004).

However, it can be argued that relations between parental divorce and attitudes about (aspects of) society of their children might exist. Parental divorce might affect the attachment of the children to their biological parents, either by the divorce itself, or by the parental conflicts before and after the divorce. A secure attachment of children to relevant adults (among whom biological parents are paramount) is an important condition of the balanced psychological development of children. Also the forced choice to live either with their father or their mother after the break-up might affect the attitudes and values of the children involved, by the biased socialization of the co-resident single parent. The problems in the parental home might push children outdoors, and thus stimulate more participation in civic activities. Prokic & Dronkers (2009) presented a paper in which they analyzed societal attitudes of children in mother-single, father-single and two-parent families in different societies with the Civic Education Study 1999 (CivEd) of the International Educational Association (IEA). Although the measurement of the family form was very poor in the CivED 1999 (it did not distinguish between step-parents and biological parents) they found some variation in societal attitudes of children living in these three family forms across different societies.

Therefore we discuss in the next section different mechanisms underlying the relation between parental divorce and the attitudes of their children such as: 1. Insecure attachment induced by parental conflicts and divorce. 2. Restructuring of the parental gender-roles in the single-parent-family. 3. Imbalance between gendered values and attitudes in single-father and single-mother families.

The data set with the societal attitudes and civic knowledge of grade 8 pupils is ICCS 2009, also collected by the IEA. The measurement of the family forms in which these 13-14 years old pupils live is for more precise than the measurement in CivED

1999. The 13 or 14 years old pupils indicated for each category with whom they normally live together (father; mother; step-father, step-mother; siblings; grandparents). The advantage of this measurement of the family structure is that it measures the real living situation, as perceived by a 13 or 14 year-old child, and thus is not obscured by legal nuances (cohabitation versus marriage; de facto separation versus formal divorce). A disadvantage of this measurement is that the ICCS 2009 data does not provide the reason for the family form (divorce; separation; death; born outside wedlock). In most of the European countries in the ICCS 2009 divorce or separation is the most common reason for single parenthood of parents of 13 or 14 year old children, we assume in the next section that the main cause of another family form than a two-parent family for 13 or 14 year old pupils in these European societies is divorce or separation of their parents.¹

2. Theoretical background

There might be several mechanisms which might be a cause of a relation between parental divorce and/or separation on the one hand and the attitudes of their children towards society on the other hand. We do not study these mechanisms in this paper; our goal is far more modest: establishing whether the relation exists. But we discuss four possible mechanisms, which might be responsible for a significant relation between parental divorce and/or separation and the attitudes of their children towards society: Insecure attachment induced by parental conflicts and divorce. 2. Restructuring of the parental gender-roles in the single-parent-family. 3. Imbalance between gendered values and attitudes in single-father and single-mother families. 4. Interactions between stressful events and genes functioning.

2.1 Attachment

Attachment theorists, starting with Bowlby (1973, 1980, 1993) consider children to have a need for a secure relationship with adult caregivers, without which normal social and emotional development will not occur.

Attachment theory proposes that infant behaviour associated with attachment is primarily a process of proximity seeking to an identified attachment figure in stressful situations, for the purpose of survival. Infants become attached to adults who are sensitive and responsive in social interactions with the infant, and who remain consistent caregivers for some months during the period from about six months to two years of age. During the later part of this period, children begin to use attachment figures (familiar people) as a secure base to explore from and return to. Parental responses lead to the development of patterns of attachment which in turn lead to internal working models which will guide the individual's feelings, thoughts and expectations in later relationships. Separation anxiety or grief, following serious loss, are normal and natural responses in an attached infant. An extreme deficit in appropriate parenting can lead to a lack of attachment behaviors in a child and may result in the rare disorder known as reactive attachment disorder.

¹ Parents of 13 or 14 year old children are generally still too young to die, and the number of people who (intentionally or unintentionally) become a single parent already prior to childbirth will be rather low.

Ainsworth (1967), an important figure in the formulation and development of attachment theory, introduced the concept of the "secure base" and developed a theory of a number of attachment patterns or "styles" in infants in which distinct characteristics were identified; these were secure attachment, avoidant attachment, anxious attachment and, later, disorganized attachment. Other theorists subsequently extended attachment theory to adults. Methods exist for measurement of attachment patterns in older infants and adults, although measurement in middle childhood is problematic. In addition to care seeking by children, one may construct other interactions including some components of attachment behavior; these include peer relationships of all ages, romantic and sexual attraction, and responses to the care needs of infants or sick or elderly adults.

Although in the early days academic psychologists criticized attachment theory, it has become the dominant approach to understanding early social development and given rise to a great surge of empirical research into the formation of children's close relationships (Rutter, 1995). There have been significant modifications as a result of empirical research but the main attachment concepts have become generally accepted (Bowlby & King, 2004).

Given that children of divorced parents are prone to have less secure attachment to significant others, we hypothesize that children living in single-parent-families have less trust in societal institutions and their own nation and have more negative attitudes towards outsiders in their society (immigrants) relative to the children living in two-parent-families.

2.2 Restructuring of parental gender roles in single-parent-families

According to social learning theory, children acquire sex-typed behavior by imitating significant others as role models (Stevenson & Black, 1996). Children learn that mothers and fathers perform different tasks, and this learning is different in single-mother-families and single-father-families, compared with families with both parents. Two theories suggest why this differential learning of gender roles takes place. According to "role-restructuring" theory, specialization by gender is more difficult in single-parent-families, as single-mothers and single-fathers must perform a wide range of tasks, including ones that are non-traditional for their gender. Hence, children in single-parent-families, irrespective of the single-parent's gender, should be less likely than children in two-parent-families to "learn" the traditional gender-roles. If this "role-restructuring" theory is correct, one would expect less traditional attitudes about gender-roles of children living in single-mother and in single-fathers families. According to the "father-absence" theory, in contrast, the impact of growing up in a single-parent-family depends on the single-parent's gender. Fathers are more likely than mothers to stress conformity to traditional gender roles. Hence, the single-father-family should still instill more traditional gender attitudes in children than growing up with a single-mother, with children from intact families in an intermediate position (Kiecolt & Acock, 1988). Wright & Young (1998) found for the USA that children in father-headed families have more traditional gender-related attitudes than mother-headed families, which provided support for the "father-absence" theory. However, they found gender-specific effects after controlling for maternal employment. Children in father-headed families have more traditional gender-related attitudes than mother-headed families. Lont & Dronkers (2004) found for the Netherlands that secondary school pupils in single-mother-families had less traditional

views on future task division in upbringing such as caring for children, cooking, earning money and other domestic chores than comparable pupils in two-parent families. But they found no difference in this attitudes regarding future task division between pupils in single-fathers-families and two-parents-families.

Given this overall support for the “father-absence” theory we hypothesize that children living in single-mother-families have more positive attitudes towards women’s rights and gender-equality than children living in two-parents-family. We also hypothesize that children living in single-father-families have less favorable attitudes towards women’s rights and gender-equality than children living in two-parents-family.

2.3. Imbalance between gendered values and attitudes in only-biological-father-families and only-biological-mother-families

We can distinguish between only-biological-mother- and only-biological-father-families (in various combinations with step- and grandparents). At the start of the second part of the 20th century, mothers got mostly the custody of the children and the children lived mostly with her, while the biological father live separately, seeing his children less or more. The amount of time the divorced biological father spent with his children depended on the post-divorce development of the relations between the ex-spouses and of the possible new post-divorce partnerships of both ex-spouses. During the growth of percentages of divorced parents in the last part of the 20th century it became less exceptional that the biological father obtained the custody of his children and that his children lived with him. But until today even in the most “emancipated” societies the majority of the children lives with their biological mothers after divorce or separation. This societal preference towards children staying with their mothers might cause unmeasured selectivity effects. Children living with their only-biological-father are still more exceptional than children living with their only-biological-mother and the same can be true for their fathers. It might be that only-biological-fathers with their children are more positively selected for the difficult task for raising children after divorce than only-biological-mothers, and as a consequence the children of the former are better socialized than those of the latter. However, if women are on average more or differently equipped to raise children single-handed than only-biological-fathers (either by their biological characteristics or by cultural roles) the children of the only-biological-mothers are better socialized than those of the only-biological-fathers. For these two reasons, we assume that the attitudes of children in only-biological-mother-families will be different from those in Only-biological-father-families, although the direction of these differences is not clear due to the outlined contradictory processes.

These attitudes might also differ between children in only-biological-mother-families and only-biological-father-families because of the gender-imbalance in both types of family forms: the missing biological father in the only-biological-mother-family and the missing biological mother in the only-biological-father-family. According to “role-restructuring” theory, only-biological-mothers and only-biological-fathers must perform a wide range of tasks, including ones that are non-traditional for their gender. This does not necessarily imply that these single-parents do know how to balance these various gender-roles in the socialization of their children, also because these conflicts about gender-roles are themselves one of the important reasons for divorce in modern societies. As a consequence of this imbalance of the gender-roles in single-parent-

families, female values and attitudes will be more emphasized during the socialization in only-biological-mother-families, while male values and attitudes will be more emphasized during the socialization in only-biological-father-families, both in comparison with the socialization in two-parent-families. Murray & Sandqvist (1990) show that children in only-biological-mother-families do relatively worse for math compared with their reading grades, while children in only-biological-father-families do relatively worse for reading compared with their math grades.

Given these differential emphases of male and female values and attitudes during the socialization in only-biological-father or only-biological-mother-families, we hypothesize that children in only-biological-mother-families will have different attitudes, reflecting the dominant gender roles in these single-parent-families. The traditional female gender role is more related with activities of caring and nurturing of children and those who need help, while the traditional male gender role is more related with defending territory against intruders and competition. As far as these traditional gender roles still influence the bias in the socialization in the single-parent-families we expect that more positive attitudes towards ethnic groups and gender-equality in only-biological-mother families, while children in only-biological-father-families will have more civic knowledge and more positive attitudes towards civic institutions and ones nation.

2.4 Interactions between stressful events and genes functioning

It is well known that stressful events like parental divorce and death can influence a child's long-term development. Most of the previous studies focused on how a particular child's individual characteristics and genetics interacted with that child's experiences in an effort to understand how health problems emerge. Recently researchers (Romens, McDonald, Svaren & Pollak, 2014) were able to measure the degree to which genes were turned "on" or "off" through a biochemical process called methylation. They found an association between the kind of parenting children had and a particular gene (called the glucocorticoid receptor gene) that's responsible for crucial aspects of social functioning and health. Not all genes are active at all times. DNA methylation is one of several biochemical mechanisms that cells use to control whether genes are turned on or off. The researchers examined DNA methylation in the blood of 56 children ages 11 to 14. Half of the children had been physically abused. Romens et al (2014) found that compared to the children who hadn't been maltreated, the maltreated children had increased methylation on several sites of the glucocorticoid receptor gene, also known as NR3C1, echoing the findings of earlier studies of rodents. In this study, the effect occurred on the section of the gene that's critical for nerve growth factor, which is an important part of healthy brain development. There were no differences in the genes that the children were born with, the study found. Instead, the differences were seen in the extent to which the genes had been turned on or off. The gene identified by the researchers affects the hypothalamic-pituitary-adrenal (HPA) axis in rodents. Disruptions of this system in the brain would make it difficult for people to regulate their emotional behavior and stress levels. Circulating through the body in the blood, this gene affects the immune system, leaving individuals less able to fight off germs and more vulnerable to illnesses.

Given that parental divorce and/or separation are related with child abuse or child neglecting, these stressful events might influence the child's long-term development and thus the attitudes towards society.

2.5 Differences between male and female pupils

These civic knowledge and attitudes might have different relevance for male and female pupils (just like the skills in reading and math are still unequal distributed among boys and girls, even in the most gender-equal societies). Also the restructuring of the parental gender roles and the possible imbalance between gendered values and attitudes in only-biological-mother and only-biological-father-families might have different consequences for male and female pupils. Therefore we will analyze civic knowledge and attitude separately for male and female pupils.

3 Data and Measurements

3.1 the International Civic and Citizenship Study.

This paper uses data from the International Civic and Citizenship Study (ICCS) conducted by International Educational Association (IAE) in 2009. The aim of this study is to examine to which extent are young people ready to take their role as citizens in democracies (Brese, Jung, Mirazchiyski, Schulz & Zuehlke, 2011). In order to achieve this goal International Civic Education Study tests civic knowledge and civic attitudes and civic participation of 13 or 14 year old students across 38 countries in all the continents. In this paper we use only the European countries (Australia, Canada & United States did not participated) in order to have one main cause of family forms other than two-parenthood: divorce or separation.

Although the International Civic Education Study focuses in particular on the role of schooling for the development of civic knowledge, attitudes and participation, we will limit ourselves to the many available background variables, such as family background. Therefore this data not only allows us to understand better how civic knowledge and attitudes of young people vary, and to examine this variation in comparative perspective.

For the purpose of this study we use measurements of civic knowledge and attitudes of the 13 or 14 year old pupils in 25 European countries: Austria, Flemish Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, England, Estonia, Finland, Greece, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Slovakia, Slovenia, Spain, Sweden and Switzerland. In total we analyze 62060 unweighted or 60612 weighted native children in 25 different European countries. Finally, given the nature of our dependent variables we have decided to exclude cases with missing values from our study in order to make the analysis more conservative.

3.2 Dependent variables

The ICCS has measured various aspects of civic knowledge and attitudes. In this paper we will use the following indicators:

- Civic knowledge (the combination of the five plausible values of the Item Response Theory).
- Trust in civic institutions.
- Positive attitudes towards own country.
- Equal rights for all ethnic groups.
- Positive attitudes towards gender equality.
- Support for democratic values.

The average scores on these indicators and the prevalence of the various family-forms vary substantially between the 25 European countries. We are not interested here in this cross-European variation, but we need to correct for this variation as well. Therefore we add dummies for all countries to all equations, which will take care for all unmeasured differences between the countries.

The descriptive statistics of the variables can be found in table 1.

3.3 Family form

A disadvantage of ICCS 2009 is that it lacks information about the cause of single parenthood or guardianship of one the parents. Although we assume that in most European countries divorce or separation is the most common reason for single parenthood of parents of 13- or 14-year old children, there might be other reasons for growing up in a single-parent family (with or without a guardian), i.e., birth out of wedlock without a following marriage or cohabitation, and death of one of the parents. However, parents of 15-year old children are generally still too young to die, and the number of people who (intentionally or unintentionally) become a single parent already prior to childbirth will be rather low, except among African and Caribbean groups.

An important advantage of the measurement of family form in ICCS is that students were asked with whom they regularly live at home, and they were offered a number of possible persons, whom they could all tick. This way, the real family form in the eye of the students is measured instead of the formal situation, as reported by interested parents or authorities. Parents who separated after cohabitation (instead of marriage) before the child reaches the age of 15 are measured in the same way as formally divorced parents. Since separation after cohabitation has more or less the same effect on children as compared to divorce after marriage (Dronkers & Härkönen 2008; Härkönen & Dronkers 2006), the ICCS data provide a more accurate picture in countries where cohabitation with children is common. Married parents, who stopped living together before the 15-year old student participates in the ICCS survey, are also treated in the same way as formally divorced parents. This feature is especially relevant for catholic countries like Italy, Ireland, Portugal and Spain, where a formal divorce is still difficult to obtain. A disadvantage is that some children may live without a parent temporarily (e.g. fishermen, fathers working in the origin country). We believe, however, that this risk is small, as some students still will indicate that they live with both parents *usually*.

These were the categories for which each pupil indicated if he/she was living at home: mother; female guardian; father; male-guardian; siblings; grandparents; others. We combined these answers into the following family-forms: mother and father, irrespectively whether there were also grandparents and 'others' living in that home (two-parent family); only mother without male-guardian and grandparents, irrespectively whether there were 'others' living in that home (single-mother); mother and male-guardian, irrespectively whether there were also grandparents and 'others' living in that home (mother & step-father); only father without female guardian and grandparents, irrespectively whether there were 'others' living in that home (single-father); father and female-guardian, irrespectively whether there were also grandparents and 'others' living in that home (father & step-mother); grandparents without father or mother, but irrespectively whether there were 'others' living in that home (grandparents); grandparents with mother but without father, irrespectively whether there were 'others'

living in that home (mother & grandparents); grandparents with father but without mother, irrespectively whether there were ‘others’ living in that home (father & grandparents); sibling without father, mother or grandparents, but irrespectively whether there were ‘others’ living in that home (siblings); mother and female-guardian, irrespectively whether there were also ‘others’ living in that home (mother & step-mother); father and male-guardian, irrespectively whether there were also ‘others’ living in that home (father & step-father).

3.4 control variables

We use as controls the national index of socio-economic background (as estimated by ICCS 2009) and gender.

About here table 1

4 Results

4.1 Differences between family forms without background controls

The upper part of table 2 shows the differences in civic knowledge and societal attitudes between pupils living with both parents and pupils living in other family-forms, without control for parental socio-economic background and gender but with control for the 25 European countries of test.

Pupils living in single-mother families, mother & stepfather families, siblings-families and father & stepfather families score significantly lower on all indicators of civic knowledge and societal attitudes, compared to pupils living with both parents.

Pupils living in grandparents families and mother & grandparents families score significantly lower on nearly all indicators of civic knowledge and societal attitudes, and on none indicator significantly higher, compared to pupils living with both parents.

Pupils living in single-father families, father & stepmother families and father & grandparents families score significantly lower on some indicators of civic knowledge and societal attitudes, and on some indicators significantly higher, compared to pupils living with both parents.

Pupils living in mother & stepmother families score significantly higher on some indicators of civic knowledge and societal attitudes, and on none indicator significantly lower, compared to pupils living with both parents.

4.2 Differences between family forms with background controls

The lower part of table 2 shows the differences in civic knowledge and societal attitudes between pupils living with both parents and pupils living in other family-forms, with control for parental socio-economic background, gender and countries of test.

The control for parental background and gender makes the differences smaller in the majority of the cases, but the vast majority of the differences remain significant.

Pupils living in mother & stepfather families and siblings-families score significantly lower on all indicators of civic knowledge and societal attitudes, compared to pupils living with both parents.

Pupils living in single-mother families, grandparent families, and father & stepfather families score significantly lower on nearly all indicators of civic knowledge

and societal attitudes, and on none indicator significantly higher, compared to pupils living with both parents.

Pupils living in single-father families, father & stepmother families, mother & grandparents families and father & grandparents families score significantly lower on some indicators of civic knowledge and societal attitudes, and on some indicators significantly higher, compared to pupils living with both parents.

Pupils living in mother & stepmother families score significantly higher on some indicators of civic knowledge and societal attitudes, and on none indicator significantly lower, compared to pupils living with both parents.

It is important to underline that these significant differences are not large. Table 2 gives standardized coefficients: this makes the differences at most a few points as large. On the other hand the standardized coefficients of gender are not much larger than this family form differences (.12; .01; -.13; .12; .04; .07).

About here table 2

4.3 Differences between males and females in various family forms

Table 3 shows the differences in civic knowledge and societal attitudes between male and female pupils living with both parents and pupils living in other family-forms, with control for parental socio-economic background, gender and countries of test. The main outcome of this table is that there might be a few gender-related differences in civic knowledge and societal attitudes, but they cannot explain away the differences in civic knowledge and societal attitudes related to the various family forms.

About here table 3

5. Conclusion

We analyzed the relation between family form on the one hand and the attitudes of their children towards society on the other hand. We used measurements of civic knowledge and attitudes of the 13 or 14 year-old pupils in 25 European countries, collected by the International Civic and Citizen study. We could distinguish the following family-forms: mother and father; only mother without male-guardian and grandparents; mother and male-guardian; only father without female guardian and grandparents; father and female-guardian; grandparents without father or mother; grandparents with mother but without father; grandparents with father; sibling without father, mother or grandparents; mother and female-guardian; father and male-guardian. A disadvantage of ICCS 2009 is that it lacks information about the cause of single parenthood or guardianship of one the parents. Although we assume that in most European countries divorce or separation is the most common reason for single parenthood of parents of 13- or 14-year old children, there might be other reasons for growing up in a single-parent family (with or without a guardian), i.e., birth out of wedlock without a following marriage or cohabitation, and death of one of the parents. We have six indicators of attitudes toward society: *Civic knowledge*; trust in civic institutions; positive attitudes towards own country; equal rights for all ethnic groups; positive attitudes towards gender equality; support for democratic values.

After control for parental socio-economic background, gender and countries of test, pupils living in mother & stepfather families and siblings-families score significantly lower on all indicators of civic knowledge and societal attitudes, while pupils living in single-mother families, grandparent families, and father & stepfather families score significantly lower on nearly all indicators of civic knowledge and societal attitudes, compared to pupils living with both parents. This hardly differs between male and female pupils. These significant differences between family forms and civic knowledge / societal attitudes are not large, but gender differences in this knowledge/attitudes are not much larger.

Given that divorce and/or separation is the most common reason for single parenthood of parents of children our results means that divorce and/or separation have consequences outside the family, in this case the amount of civic knowledge and the direction of societal attitudes by the young members of society.

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Table 1: Descriptive statistics ($N_{\text{unweighted}} = 62060$; $N_{\text{weighted}} = 60595$)

	Minimum	Maximum	Mean	Std. Deviation
Civic knowledge	139,18	848,52	523,15	92,05
Trust in civic institutions	20,21	77,35	49,49	9,61
Positive attitude own country	14,40	74,83	48,55	9,25
Equal rights ethnic groups	19,29	65,88	48,74	10,02
Gender equality	16,25	64,56	51,02	10,16
Democratic values	12,34	67,34	50,08	9,94
Single mother (6523)	0,00	1,00	0,11	0,31
Mother & step-father (3658)	0,00	1,00	0,06	0,23
Single father (740)	0,00	1,00	0,01	0,12
Father & step-mother (382)	0,00	1,00	0,01	0,09
Grandparents (462)	0,00	1,00	0,01	0,10
Mother & grandparents (1484)	0,00	1,00	0,03	0,17
Father & grandparents (222)	0,00	1,00	0,00	0,06
Siblings (402)	0,00	1,00	0,01	0,09
Mother & step-mother (157)	0,00	1,00	0,00	0,05
Father & step-father (180)	0,00	1,00	0,00	0,01
National Index social economic background	-5,27	3,31	0,09	0,98
Gender	0	1	0,50	0,50

Source: own weighted computation ICCS 2009

Table 2: Civic knowledge and societal attitudes of 13 or 14 year old native pupils in different family-forms (two-parents family is reference group): without and with control for socio-economic background & gender: standardized coefficients and between parenthesis t-values.

	Civic knowledge	Trust in civic institutions	Positive Attitude own country	Equal rights ethnic groups	Gender equality	Democratic values
Without control for background						
Two-parent families (46555)	reference	reference	reference	reference	reference	reference
Single mother (6523)	-.074** (-18.45)	-.062** (-15.48)	-.035** (-8.46)	-.015** (-3.54)	-.013** (-3.24)	-.020** (-4.89)
Mother & step-father (3658)	-.124** (-30.58)	-.043** (-10.62)	-.012** (-2.84)	-.062** (-14.72)	-.017** (-4.22)	-.021** (-4.99)
Single father (740)	-.036** (-9.07)	-.010** (-2.62)	.018** (4.37)	.018** (4.38)	-.018** (-4.47)	.021** (5.29)
Father & step-mother (382)	-.023** (-5.79)	-.006 (-1.54)	.025** (6.04)	-.014** (-3.43)	-.007 (-1.83)	-.004 (-.93)
Grandparents (462)	-.047** (-11.98)	-.016** (-4.02)	-.003 (-.813)	-.019** (-4.56)	-.013** (-3.16)	-.020** (-5.10)
Mother & grandparents (1484)	-.033** (-8.39)	-.008* (-2.08)	-.005 (-1.22)	-.002 (-.51)	-.011** (-2.74)	.005 (1.29)
Father & grandparents (222)	-.026** (-6.48)	-.016** (-3.99)	.014** (3.39)	-.019** (-4.60)	-.030** (-7.37)	-.010* (-2.37)
Siblings (402)	-.029** (-7.24)	-.017** (-4.36)	-.011** (-2.71)	-.025** (-6.22)	-.023** (-5.71)	-.014** (-3.45)
Mother & step-mother (157)	.003 (0.77)	-.005 (-1.22)	.001 (.36)	.018** (4.37)	.011** (2.82)	.027** (6.64)
Father & step-father (180)	-.014** (-3.52)	-.031** (-7.98)	-.023** (-5.55)	-.017** (-4.08)	-.007 (-1.82)	-.014** (-3.55)
Control for socio-economic background & gender						
Single mother (6523)	-.043** (-11.83)	-.058** (-14.54)	-.042** (-10.20)	-.001 (-.28)	.001 (.15)	-.009* (-2.29)
Mother & step-father (3658)	-.096** (-25.81)	-.039** (-9.70)	-.015** (-3.64)	-.054** (-13.14)	-.013** (-3.52)	-.010* (-2.38)
Single father (740)	-.015** (-4.03)	-.008* (-2.01)	.011** (2.70)	.029** (7.33)	-.002 (-.54)	.028** (6.96)
Father & step-mother (382)	-.016** (-4.56)	-.005 (-1.34)	.023** (5.82)	-.012** (-3.08)	-.005 (-1.42)	-.001 (-.34)
Grandparents (462)	-.039** (-10.79)	-.015** (-3.76)	-.006 (-1.38)	-.016** (-3.97)	-.009* (-2.35)	-.018** (-4.48)
Mother & grandparents (1484)	-.023** (-6.30)	-.007 (-1.76)	-.008 (-1.86)	-.003 (.68)	-.006 (-1.58)	.009* (2.20)
Father & grandparents (222)	-.008* (-2.30)	-.014** (-3.48)	.009* (2.13)	-.010* (-2.49)	-.018** (-4.94)	-.004 (-1.01)
Siblings (402)	-.028** (-7.71)	-.017** (-4.29)	-.012** (-3.10)	-.024** (-5.96)	-.019** (-5.17)	-.014** (-3.34)
Mother & step-mother (157)	-.001 (-.21)	-.005 (-1.29)	.004 (1.12)	.014** (3.64)	.003 (.87)	.026** (6.57)
Father & step-father (180)	-.008* (-2.23)	-.031** (-7.82)	-.025** (-6.11)	-.013** (-3.37)	-.003 (-.75)	-.012** (-3.14)

Source: own weighted computation ICCS 2009. Parameters for the dummies for countries, which are included in all equations, are not shown.

Table 3: Civic knowledge and societal attitudes of 13 or 14 year old male and female native pupils in 25 different European countries: deviations of scores of pupils in two-parent families with control for socio-economic background (standard coefficients).

	Civic knowledge	Trust in civic institutions	Positive Attitude own country	Equal rights ethnic groups	Gender equality	Democratic values
Male						
Single mother (6523)	-.055**	-.074**	-.052**	.003	.013*	-.002
Mother & step-father (3658)	-.081**	-.009	-.014*	-.030**	-.004	.008
Single father (740)	-.012*	-.010	.023**	.055**	.000	.042**
Father & step-mother (382)	-.013*	-.006	.015**	-.005	-.021**	.004
Grandparents (462)	-.041**	-.020**	-.008	-.014*	-.008	-.034**
Mother & grandparents (1484)	-.008	-.012*	.000	.001	-.001	.011
Father & grandparents (222)	-.009	-.021**	.009	-.027**	-.035**	-.016**
Siblings (402)	-.032**	-.018**	-.014*	-.026**	-.021**	-.014*
Mother & step-mother (157)	-.011*	-.011*	-.008	.013*	.006	.020**
Father & step-father (180)	.000	-.026**	-.030**	-.007	-.017**	-.017**
Female						
Single mother (6523)	-.033**	-.040**	-.031**	-.006	-.012*	-.017**
Mother & step-father (3658)	-.112**	-.072**	-.015**	-.077**	-.023**	-.029**
Single father (740)	-.018**	-.005	-.008	-.002	-.007	.007
Father & step-mother (382)	-.020**	-.004	.035**	-.017**	.012*	-.007
Grandparents (462)	-.038**	-.009	-.004	-.018**	-.011*	.003
Mother & grandparents (1484)	-.041**	-.002	-.017**	.004	-.014**	.007
Father & grandparents (222)	-.007	-.004	.007	.010	-.001	.010
Siblings (402)	-.023**	-.015**	-.009	-.022**	-.019**	-.011*
Mother & step-mother (157)	-.009	-.001	.015**	.015**	.002	.031**
Father & step-father (180)	-.021**	-.039**	-.018**	-.025**	.016**	-.004

Source: own weighted computation ICCS 2009