Chapter 12
The Psychology of Families

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Abstract Two illusions about the nature of human families are the Illusion of Gender Sameness and the Illusion of Family Socialization. The assumption of gender sameness is critically evaluated and found to be deficient. The lack of sex differences on many variables is not disputed, but on variables where sex-specific past selection pressures can be assumed, the differences are considerable. Neglecting to cut nature at its joints, to use Socrates' butcher metaphor, and using effect size estimates averaged over "wrongly cut" areas gives a mistaken impression of the absence of sex differences. Moreover, socially important sex differences may appear as variance differences. How evolutionarily designed sex differences invade mating, parenting, grandparenting, and extended family relationships, and produce asymmetries in family life, is exemplified, particularly with respect to grandparenting. The Illusion of Family Socialization denotes the belief that the human adult personality is formed by parenting practices. Robust data from behaviorial genetics attest that the shared environment, and thus family-specific socialization practices, does not—with exceptions—account for the variances in personality. Considerations from evolutionary theory, particularly life history theory and parent–child conflict, deliver plausible reasons why parents are not able to mold permanently their offspring's personality. A human evolutionary behavioral science is well equipped to expose and debunk these illusions.

Modern men are no longer like the patriarchs of past times. The "new men" touted in the media presumably take an equal share in housework and childcare, or at least try to, especially if they have an academic education, are open-minded, inclined to left or liberal views, and participate in enlightened discourses. Such men participate in birth preparation courses, are empathetically present at delivery, push prams in public, and are willing to take an equal share of domestic chores, or even the role of house husband if necessary.

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Good intentions and honest promises are cheap, but their consequences costly. Do men with egalitarian gender role attitudes, which are especially prominent among the young of university faculties, stick to their ideals? Steven Rhoads, a professor of Public Policy at the University of Virginia, initiated a nationwide study of how male and female faculty members used parental leave (Rhoads 2004; Rhoads and Rhoads 2004). His research team conducted lengthy interviews about infant care with 184 male and female assistant professors who were trying or had tried to obtain tenure while at the same time raising a child under age two. These are the type of people we may assume to be at the very frontier of gender equality.

The statement "Families usually do best if the husband and wife share equally in childcare, household work, and paid work" was answered affirmatively by 75% of the female professors, 10% disagreed. Of the men, 55% agreed and 33% disagreed. This is not very egalitarian, but let us note that a majority of both genders supported equal roles and shares in childcare. The actual performance, however, did not match the professors' attitudes. Whereas 67% of eligible female professors took the available paid leave, only 12% of the males did. The participants were interviewed about 25 childcare tasks, namely whether each task was always or usually done by the respondent, by the spouse, or by both equally. The tasks covered the whole gamut of childcare that can be split between both parents, such as basic tasks (e.g., changing diapers), logistics (e.g. bringing child to day care), consulting and planning (e.g., seeking advice about childcare), recreation (e.g., playing with child), and emotional involvement (e.g., comforting the child).

The female academics did all 25 tasks significantly more often than the male academics, for all but two tasks even highly significant. The gender difference remained extremely large when male and female leave takers were compared on the one hand, and those who did not on the other. The men who had taken the leave had ample opportunity to engage in childcare, and they did more of it than the males who had not taken the leave, but they still did significantly less than the women in either group, those who took leave and those who did not. Even if only those men and women were compared who had stated that childcare should be shared equally, a large difference remained. From the whole sample, less than 3% of the males said they did more care than their spouses, whereas 96% of the females said they did more. Asked about how much they liked doing the baby care tasks, the gender difference was the same: the women liked almost all of the tasks more than the men did. For example, more women liked to change diapers than disliked it, whereas the reverse was true for men.

The findings about this gender gap are recent, but not new. A similar story has been told about the kibbutzim (Spiro 1979). The kibbutz movement in Israel tried to overturn the traditional social order, abolish sustainably any division of labor between the sexes, and disburden women from the "yoke of childcare". These ideals were not externally imposed but were generally adopted wholeheartedly by the first-generation kibbutz members. As it turned out, the third generation of female kibbutz members engaged in a sort of counterrevolution. These women demanded emphatically to have the right to take care of their children themselves and to have them around all the time, especially at night. They placed emphasis on their female appearance, expressed preferences for domestic work, and valued household chores

and childcare as satisfactory. As to the traditional three German K's of gender segregation (*Küche*, *Kinder*, *Kirche*), they fought their way back to kitchen and kids by their own desire.

This is a chapter on prevalent illusions about the psychology of family matters. A modern Western illusion is the one exemplified above, the Illusion of Gender Sameness. This illusion is so basic that it pervades various aspects of mating, partnership, parenting, grandparenting, and solidarity in extended families. Another major illusion may be called the Family Socialization Illusion, the widespread belief that a child's personality is molded lastingly by parenting practices. Both illusions will be dealt with in some detail. It goes without saying that a human evolutionary behavioral science is best equipped to expose and debunk these illusions, and has the duty to inform the public. Expressly, the aim is not to turn the wheel of progress back, but to help avoid pitfalls and dead ends in science, unrealizable hopes in private family life, and inefficient public policies.

12.1 The Illusion of Gender Sameness

The Illusion of Gender Sameness comes in many forms and degrees. It originated in equity feminism and quickly developed into gender feminism with a central claim about human nature: the differences between men and women are not primarily biological but are socially constructed due to traditional male dominance (e.g. Fausto-Sterling 2000). The task is not to empirically investigate and support the claim but to "deconstruct".

Moderate forms of this position can be subsumed under the banner of the gender similarity hypothesis (Hyde 2005; Eagly 1987): males and females are similar on most psychological variables. There are admittedly some genetically mediated somatic sex differences, especially men's greater strength and size and women's childbearing and lactation, which interact with shared cultural beliefs and economic demands and thus lead to gender role assignments that constitute the sexual division of labor. Any psychological sex differences are thus secondary, are gender differences.

The proponents of the gender similarity hypothesis take laudable pains to present empirical support, typically with meta-analyses. In a second-order meta-analysis, Hyde reviewed 128 meta-analyses and found that most psychological gender differences were close to zero ($d \leq 0.10$) or small ($0.11 < d < 0.35$), a few a moderate, and very few are large ($0.66 \leq d \leq 1.00$) or very large ($d > 1.00$) (Hyde 2005). Let us take a critical look at these results.

Human evolutionary behavioral scientists would fully agree that on many variables, if not most, both sexes differ not at all or just slightly. If there has been no evolutionary history of sex-specific selection pressures, no sex differences have been formed. For example, both sexes equally like a person with a likeable personality for a long-term mate (Buss et al. 1990) because a nice partner is of equal fitness interest for both sexes. Both sexes equally seek acceptance from peers because rejection from the group has been equally harmful. Both sexes seem to get jealous about

equally often and equally strongly, but the stimuli that provoke jealousy are quite different for the two (Buss et al. 1992).

We have to cut nature at its joints, to use Socrates' butcher metaphor. If, for example, we find evidence that shows men to have better spatial abilities (Gaulin and Hoffman 1988), we did not cut at the right joint location because spatial ability is too heterogeneous to be lumped together. Men get higher scores on many spatial abilities, such as spatial orientation, spatial visualization, and mental rotation, but not on all. Women perform better in tasks of object-location memory (Silverman and Eals 1992), especially if the objects are or have been relevant in the life of a gatherer, such as plants (Neave et al. 2005) or food items (New et al. 2007; Spiers et al. 2008). So the questions whether one sex is more "emotional" and the other more "rational", or whether the sexes differ in "mathematical" or "musical" ability are badly stated and as wrong as the question of whether one sex is more intelligent than the other. Evolutionary selection pressures make finer differentiations. Thus, the meta-analytic findings of no gender difference in sexual satisfaction (Oliver and Hyde 1993) or in life satisfaction and happiness (Pinquart and Sörensen 2001; Wood et al. 1989) come as no surprise to an evolutionary scientist (Lippa 2005), who instead would predict differences in attitudes about casual sex and masturbation, where they are indeed large (Oliver and Hyde 1993). The overall gender difference in aggression is moderate (Hyde 1984; Eagly and Steffen 1986), but higher if specific types of aggression are considered (e.g., physical aggression, assertive aggression), or reversed with female-specific types of aggression (e.g., indirect aggression).

Natural and sexual selection do not pick out serially one characteristic after another, but target individual systems. It is system configurations that get selected. Sex-specific selection pressures change the frequencies of trait constellations, not of isolated traits. Therefore, the sexes differ in the profiles of their characteristics. The standard procedure in estimating the magnitude of the difference in central tendencies of a distribution, for example Cohen's *d*, is applied to one characteristic at a time. More appropriate for estimating sex differences is a multivariate effect size measure that quantifies properly the difference in the constellation of characteristics, the Mahalanobis distance *D*. Del Giudice recalculated two meta-analyses with this procedure and reported that on the Big Five personality traits the average Cohen's *d* was just 0.28, whereas the Mahalanobis *D* was 0.84 (Del Giudice 2009). In a meta-analysis of aggression, a similar difference between the univariate and the multivariate effect size was found.

Moreover, evolutionarily meaningful sex differences may show up in distribution parameters other than differences in central tendencies. Intelligence tests, for example, are mostly constructed to be gender-fair by the choice of tasks; males and females do not differ in averages. But males tend to show higher variances than females (Feingold 1992; Irwing and Lynn 2005). A similar variance difference is found, among others, with respect to height (Bell et al. 2002), academic high-school success (Nowell and Hedges 1998), and verbal competence (Gallagher et al. 2000). The phenomenon is also seen in everyday life. Men are overrepresented among Nobel laureates, great artists, and workaholics, but also among those with severe intellectual disabilities, among junkies, criminals, and losers (cf. Pinker 2008). This

variance difference makes evolutionary sense. Because of higher male than female reproductive potential and thus over-proportionate fitness returns with an optimal male, nature tries out more variability in the construction of male than female phenotypes (Euler and Hoier 2008). The variance differences are generally rather small, but at the tails of the distribution, and thus among those persons who are particularly noticed because they are "outliers", the difference may become socially meaningful.

Even if sex differences turn out to be small in controlled individual tests, this does not mean that they remain small in the dynamics of social interactions. Maccoby noted that in social interactions between girls and boys a plethora of obvious gender differences could be observed (Maccoby 1990) and that her conclusion in her and her colleague's seminal book on sex differences (Maccoby and Jacklin 1974) of only a few gender differences had been artifactual because the old gender difference studies were typically done with individual tests. The evolutionary heritage of our psychological sex differences does not show up primarily in performance scores of achievement tests, but in thresholds, inclinations, preferences, and openness for learning. The context matters. For example, men can and can learn to take care of a baby as well as women do. But if the baby wakes up at night and starts to fuss, the chances are high that the mother wakes up before the father does, that she starts to feel uneasy before he does, and, if she likes to take care of the baby just a bit more than he does, she will in the end be the one to get up and comfort the baby. The baby herself will react to the sex of the more frequent and thus most reliable caregiver and want mother to come, not father, display this preference and thus amplify the originally slight sex differences into cemented divisions of labor, into sex stereotypes with normative appeal.

Everyone who has raised kids of different sexes knows that boys and girls differ. Everyone who looks at the data about human behavior and does not commit the moralistic fallacy "for . . . that which must not, cannot be" (Christian Morgenstern, transl. by Max Knight) finds sex differences with impact on family relationships. Everyone who realizes that the exclusive and isolated look at just current human behavior is anthropocentric tunnel vision knows that a view which incorporates somatic and life history traits in a wider cross-species, cross-cultural and historical perspective (e.g. Geary 1998; Lippa 2005; Low 2000; Mealey 2000; Voland 2000) is incompatible with the gender sameness position.

We shall now turn to the impact sex differences have on family matters. Mating and parenting will be dealt with only cursorily. I emphasize grandparental and extended family relationships because this is the area of my particular expertise.

12.1.1 Sex Differences in Mating

The sex differences in mating are so stunning that the obvious might be overlooked, namely sexual orientation. Males and females differ as to which sex arouses them, with an extremely large effect size. If biological sex did not matter, why would homosexuality and heterosexuality not be equally frequent? If sex were a historical

construction due to patriarchal oppression by men, why is the prevalence of homosexuality so stable over diverse cultures? If sex were a social construction, why have serious past attempts at individual deconstruction of homosexuality (e.g., psychotherapy) all been to no avail? A theory must also explain the obvious, not only the rare and the subtle. Confucius says: "The common man marvels at uncommon things; the wise man marvels at the commonplace."

Apart from sexual orientation, the findings about sex differences in mating, many of them culturally universal, are so rich and recurrent that only a selected sample can be presented here (please excuse my popular vernacular): The girl wants a guy, and the guy wants sex. The woman thinks about love, the man thinks about sex. For her, sex may be the consequence of love; for him, love may be the consequence of sex. He unconsciously looks for signs of fertility, she is impressed by indicators of resources (Marilyn Monroe in *Gentlemen Prefer Blondes*: "Don't you know that a man being rich is like a girl being pretty?"). He courts, she audits. She tends to infidelity if she is dissatisfied with her partner; he does so if it is just another woman ("If I can't be near the woman I love, I love the woman I'm near"). She wants to wait with the first sex, for him it cannot be soon enough. She looks for the one Mr. Right, he counts the sheer number of his sexual conquests. She wishes to get the attention of a particular tall man, he wishes to impress all young women. She wants long-term exclusive commitment, he dodges and delays. At the wedding she thinks that she can change him; he thinks that she will stay the same (they are both wrong). He consumes pornography, she reads love stories. His display of intelligence is an asset, hers only if she can keep it hidden from him (Mae West). He tends to look at his partner in a more negative light after meeting a single, attractive woman; she is likelier to appreciate her partner more after meeting an available, attractive man (Lydon et al. 2008). If all this sounds like obsolete stereotypes from shallow party chitchat, here are a few of the many scientific references: Buss 2003, 2008; Buss and Schmitt 1993; Chasiotis and Voland 1998; Symons 1979; Townsend 1998.

The importance of sex differences in mating may be finally exemplified by a classical study (Clark 1990; Clark and Hatfield 1989, 2003) on responses to sexual offers. Male and female US-American student confederates of average attractiveness approached unfamiliar members of the opposite sex and asked, after a few friendly and complimentary sentences, one of three questions: (1) "Would you go out with me tonight?"; (2) "Would you come over to my apartment tonight?"; (3) "Would you go to bed with me tonight?". Combining the data from all three studies ($N = 144$) gave the following stunning results. The females agreed to the proposals with the following percentages: 50% (date), 7% (apartment), and 0% (sex). The males, however, agreed with 56% (date), 63% (apartment), and 71% (sex). While 29% of the males declined the proposal for sex, consider that many of these males came up with excuses ("I have no time tonight, how about tomorrow night?") and that about 5% of males are gay!

As far as I know, the experiment has not been replicated more recently (it is difficult to find males to play the confederate), but the last question, slightly changed ("Would you like to have sex with me, as soon as possible?"), was part of a German live TV game show in 2005 (RTL, *Typisch Frau—Typisch Mann*, presenter: Günther

Jauch) where I served as the "expert". The over 30-year-old moderately good-looking female confederate got a positive answer within a few minutes from every male she asked, whereas the somewhat younger, very handsome, tall, and friendly male confederate got nothing but rebuffs, and most women reacted with outrage and anger. Many of the reactions of both males and females were hilariously funny.

Sex differences like the one talked about so far can be seen as a consequence of a basic mammalian sex difference: The obligatory minimal investment into a single reproduction is considerably larger for females with their internal gestation and postpartum lactation than for males (Trivers 1972). The reproductive potential is, therefore, higher for males than for females. Because organisms are reproductive strategists that try to maximize their genetic replication, the higher male than female reproductive potential leads to sex-specific tradeoffs between parental effort and mating effort. The difference in fitness payoff between mating effort (maximizing mates) and parental effort (maximizing care for offspring) is generally more in favor of males than of females. This asymmetry in reproductive costs (Voland 2007) and thus in reproductive strategy between males and females pervades all kinds of family matters, in addition to a second asymmetry due to internal fertilization and the consequent paternal uncertainty, and can be the cause of all kinds of conflicts (Buss 1989).

A frequently heard objection against an evolutionary analysis of human behavior is that nowadays people are no longer interested in their genetic replication. People use birth control methods and may remain childless by choice. The reply is that the biological imperative to maximize reproduction is instilled into organisms by the design of their motivational structure and not by a conscious will. Even if reproduction is no longer the expressed aim, people still want and do things that in the ancestral past ensured reproduction. They like sex, strive for status, react positively to cute little kids, seek the company of friends, and so on. The continued power of our ancestral motive structure is well illustrated by an example from Tooby and Cosmides (2005): Men pay for the service of a prostitute, although they know that the prostitute uses birth control or even hope she will, but they get paid for a semen donation to a sperm bank. People are no longer reproduction maximizers, but they are still adaptation executors.

12.1.2 Sex Differences in Parenting

The human sex differences in parenting go far beyond the example presented at the beginning of this chapter, and the ultimate reasons for these differences are by now mostly well understood (Buss 2008; Daly and Wilson 1983; Geary 2005, 2008; Keller and Chasiotis 2007). Of the many differences, only a few shall be mentioned here. Paternal investment, in humans and in many other species, is facultatively expressed, whereas—in mammals at least—maternal investment is obligatory. If paternity certainty is high, if paternal investment improves offspring survival, and if other mating opportunities are rare or costly, paternal investment can be expected.

For human males this means that they are on average better fathers if they can be certain of their paternity. If there are cues to paternity certainty, such as exclusive sexual access to the woman during time of conception or phenotypic similarity between putative father and child (Burch et al. 2006), they tend to be more caring fathers, whereas the same is not true for mothers. If social norms (e.g., religion) makes male extra-pair mating effort more costly, for example with loss of reputation or stairways down to hell, fathers tend to stay home instead of philandering, whereas mothers are already by nature less inclined to stray.

12.1.3 Sex Differences in Grandparenting

In parenting, the sex differences of two generations are involved, in grandparenting there are three generations, with the parent as a mediating link. The sex of the parent is a strong determinant of grandparental care, as is the grandparent sex, stronger than the child's sex. In the past, social science theorists usually lumped grandparents into one category, thus ignoring sexual asymmetries. But there are grandfathers and grandmothers, and both can be either matrilineal or patrilineal. This makes for four kinds of grandparent, and when it comes to how much they do for grandchildren, the kinds of grandparent differ considerably owing to the sex asymmetry in reproductive strategy and paternity certainty. If we want to cut nature at its joints, the differentiation along sex *and* lineage is crucial. What is good for the goose may be good for the gander, but humans are not geese. (Geese are monogamous and thus show little sex dimorphisms, humans are not monogamous.) Grandparental investment cannot be understood adequately without consideration of its fitness consequences. The particular consequences are not always straightforward, but are mediated by socioecological circumstances, such as subsistence conditions, mating and kinship system, division of labor, residence pattern, lineality, resource control, and inheritance rules (Holden et al. 2003; Leonetti et al. 2005; Voland and Beise 2002, 2005).

Grandparents can still be reproductive, in the sense that they can do things that increase their own genetic replication. They can engage in extraparental nepotistic effort (Alexander 1987; Voland 2000) and thus increase their own inclusive fitness. Grandparents can assist their adult offspring in the offspring's parental effort by transferring resources either to their offspring and/or their grandoffspring. Families may thus be seen as a joint enterprise for reproductive profit of the participating entrepreneurs.

If grandparents are set to maximize their own inclusive fitness, it pays to allocate their resources preferentially. Mothers carry a higher burden with childcare than do fathers, and they do good to muster all the help they can get. According to the rule that "the squeaky wheel gets the grease", grandparents do good to prefer—all else being equal—to help their daughter and invest in her children rather than to help their son and his children. The son has a wife to whose parents the same logic applies. We may therefore expect maternal grandparents to exhibit more grandparental investment than paternal grandparents.

The grandparental biological relationship certainty varies between the four kinds of grandparents. The maternal grandparent can be certain that her grandchildren are her biological grandchildren. The maternal grandfather and the paternal grandmother each have one link of paternity uncertainty, and the paternal grandfather has two links. He can neither be certain of the paternity of his son nor of his son's children. All else being equal, the maternal grandmother can therefore be expected to be the most caring grandparent, the paternal grandfather the least caring.

In our first study on preferential grandparental care (Euler and Weitzel 1996), we asked participants in a wide age range (16–80 years) how much each grandparent had cared for them (*gekümmert*) up to the age of 7 years. From the total sample, those 603 cases were selected for analysis whose four grandparents were all still alive when the participant was 7 years old. The maternal grandmother was rated as having been the most caring, followed by the maternal grandfather, the paternal grandmother, and the paternal grandfather. Maternal grandparents were significantly more caring than were the paternal grandparents, and grandmothers significantly more than grandfathers. The effect sizes (partial η^2) were 0.11 for the lineage effect (maternal vs. paternal) and 0.17 for the effect of sex of grandparent. Both effects together account for a sizable proportion of the variance.

Of special interest is the finding that the maternal *grandfather* cared more than the paternal grandmother. If grandparental care-giving were solely determined by the social role of women as childcare-givers, both types of grandmothers should provide more care than both grandfathers. The social role argument should apply particularly to the older study participants, whose grandparents presumably subscribed more to traditional gender roles than grandparents of younger participants. However, the difference between more care from the maternal grandfather and less care from the paternal grandmother was even more pronounced for the older (40 years or more) than for the younger participants.

This same pattern of preferential grandparental solicitude has been found in various Western countries (for a summary see Euler and Michalski 2007), but the pattern is not a cemented, unalterable law of nature. In traditional pastoral societies with patrilocality, patrilinearity, and corresponding inheritance rules, paternal grandparents seem to get more involved in care for grandoffspring than in our environments.

Care is one type of investment of the caregiver, but there are other kinds of investment. It thus comes as no surprise that a plethora of indicators of investments have been found to differ between grandparents in the abovementioned gradation: emotional closeness, time spent together and interaction frequencies, gifts for grandchildren, grandparental mourning after a grandchild's death, naming favorite grandparents, adoption of grandchildren, and so on (Euler and Michalski 2007). No scientific data about bequests from grandparents seem to be available, but it might be predicted that inter vivos transfers are preferentially directed to children of daughters than to children of sons.

Even the informal terms of address of grandparents reflect the salient position of the maternal grandmother, who is most often of all grandparents addressed with an endearing or diminutive name. For example, in Germany the maternal grandmother

might be called “my dear granny” (German: “die liebe Oma”, or “Omi-lein”), whereas the paternal grandmother is often just called “the other grandmother” or “the grandmother from Hannover” (Euler et al. 1998).

Could it be that paternal grandparents and grandfathers lose out because they do not invest less but invest differently, that is, do different things with grandchildren than maternal grandparents and grandmothers do, and that this possibility is not adequately reflected in the investment measures reported so far? I asked 230 students (171 females, 59 males) in a rating scale questionnaire with a list of 55 activities that grandparents can do with their grandchild (e.g., “picked me up from school”, “played games with me”, “was proud of me”) how often each of the four grandparents had done that activity. For 49 of the 55 items, the standard pattern held significantly: grandmothers more than grandfathers and maternal grandparents more than paternal grandparents. Only two activities were done more by grandfathers than by grandmothers, namely “taught me skills, like cycling or swimming” and “did repairs for me”. But in both cases, the maternal grandfathers outdid the paternal grandfathers. Nonsignificant differences were seen only with activities that occurred so rarely that a floor effect did not allow differences to appear. In accord with sex-specific activity preferences, grandmothers tend to do the time-consuming, empathic, caring, and consoling activities, whereas grandfathers tend to do the repairs, teach skills (except for cooking), and spend money.

It goes without saying that the type of grandparent is not the sole determinant of grandparental investment, but it accounts for a sizable share of the variance (about 28%). Residential distance between grandparents and grandchildren understandably influences heavily how much grandparents care, but the distance between grandparent and grandchild reduces the investment of the maternal grandmother the least, the investment of the paternal grandfather the most. If the grandparents live separated or are divorced, they care less—except for the maternal grandmother. Her solicitude is the most obligatory one. Grandfathers, however, drastically reduce their concern for grandchildren if they are separated or divorced. Old male age does not seem to protect from the folly of mating effort.

The sex of the grandchild does not seem to matter, and there is no evolutionary reason why it should. Girls and boys alike ought to take what they can get. The number of grandkids a grandparent calls his or her own, however, understandably has a big effect on how much investment can be allocated to each single grandchild.

Of particular interest in the evolutionary sciences is a particular feature of the female human reproductive lifecycle, namely the menopause and its evolutionary explanation (“grandmother hypothesis”). The menopause frees the woman from the demands of newborns, so that she can devote time to raise her existing children into adolescence and help in the care of newborn grandoffspring. The grandmother hypothesis shall not be elaborated here because very good scholarly works about it are available (Hrdy 1999, 2009; Voland 2007; Voland et al. 2005).

A final question, however, might be raised. Even if modern humans are no longer reproduction maximizers and the reproductive benefit of grandmothers in terms of grandchild survival can only be shown in natural fertility populations (Sear and Mace 2008), how about psychological benefits from grandparenting? Are

grandparents with their devotion to grandchildren just thoughtless adaptation executors in an environment of mismatch to the ancestral environment, like men consuming pornography and women spending their spare time viewing Hollywood or Bollywood love story films, or does modern grandparenting translate, if no longer into grandchild survival, into the grandchildren's cognitive, verbal, and social abilities, its mental health and well-being? There are only a few studies which give some answers, but there is evidence that under conditions of risk, such as teenage pregnancy, maternal depression, and postpartum depression, grandparents can indeed provide support that helps to safeguard their children and grandchildren against adverse risks (Coall and Hertwig, 2010).

12.1.4 Sex Differences in In-Laws

One and the same grandparent can be a parent and a parent-in-law, and the adult offspring a son or daughter, or an in-law. Mothers have a positive image, mothers-in-law a negative one, apparently across cultures. The same discrimination does not apply, at least not as pronounced, to fathers vs. fathers-in-law. Evolutionary adaptations to family life are clearly relationship-specific (Daly et al. 1997) and thus frequently sex-specific. The reasons for the unfair stereotypes can be explained well from an evolutionary vantage point (Euler et al. 2009). There the maternal and paternal families each have different fitness interests in the reproductive potential of the mother (Voland and Beise 2005). A daughter-in-law is replaceable, a daughter is not. The maternal grandmother has invested massively in her daughter, but for the paternal mother-in-law the same woman is a newcomer to the family without much previous investment. The fitness interest of the maternal grandmother is thus the conservation of her daughter's maternal resources, whereas the fitness interest of the paternal grandmother is the exploitation of her daughter-in-law's maternal resources. Maternal grandparents, especially maternal grandmothers, thus add to grandchild survival, whereas paternal grandparents facilitate birth rate (Mace and Sear 2005). The intrafamilial conflict between the matriline and the patriline can even be traced down to the genetic level, where maternally imprinted genes may inhibit and paternally imprinted genes stimulate fetal growth (Burt and Trivers 2006). At the psychological level, however, the hypothesis of matrilineal conservation vs. patrilineal exploitation awaits empirical verification.

12.1.5 Sex Differences in Extended Family Relationships

The impact of sex differences in family relationships reaches well into extended family relationships. Aunts and uncles differ, as do matrilateral or patrilateral aunts/uncles. The analysis of investment of aunts and uncles has the advantage of avoiding co-residence as a confound. Brothers and sisters of a parent, unlike grandmothers and grandfathers, typically do not live together and thus act relatively

independently of each other. Due to paternity uncertainty, more investment is put into the offspring of sisters than into the offspring of brothers and more by aunts than by uncles (Gaulin et al. 1997; Hoier et al. 2001). In the same vein, female twins from same-sex pairs express greater closeness toward their nieces/nephews than male twins from same-sex pairs (Segal et al. 2007). And finally, the relationship with cousins from the mother's side tends to be closer than with those from the father's side (Jeon and Buss 2007).

12.2 The Illusion of Family Socialization

For almost 100 years everybody has known that behavioral differences between people are brought about by socialization and that the most effective socialization agent is the family. The baby is born with her mind still empty ("blank slate"), and the social environment makes more or less permanent engravings into the slate (Pinker 2002). The notion of the family as the prime and most enduring socialization agent is intuitively appealing because the family is the first social environment with the opportunity to write on the slate and thus has the most slate space. There seemed to be ample evidence for this assumption, and even more eminence: Freud had taught that adult behavior problems ("neuroses") can be traced back to traumatic experiences in early childhood. The nature–nurture controversy was understood in a dualistic way: nature is for the body and nurture is for the mind. Even the Vatican could accept this position at the end of the twentieth century when the pope declared that evolution could explain the body, but the soul was of divine source. The genes have done their work when the baby is born; from then on comes cultural influence. So what you are in personality and intelligence is so because your parents made you that way. "As the twig is bent, so grows the tree".

The data in favor of this socialization assumption were overwhelming. Socialization research found solid parent–child correlations in many traits and behaviors. The sovereignty of interpretation was in the hands of environmental theories, so no one thought, well, was allowed to assume that behavior could also be genetically determined. There was already twin research which clearly showed that intelligence was also heritable, but during my student time it was not "scientifically correct" (the term "politically correct" did not yet exist) to consider these data, let alone to consider the possibility that personality traits could be heritable. The correlations were interpreted causally in the zeitgeist of dominant milieu theories.

Behavior genetics shattered these culturalistic beliefs. The robust findings of behavior genetics may best be summarized with Turkheimer's Three Laws of Behavior Genetics (Turkheimer 2000): "(1) All human behavioral traits are heritable. (2) The effect of being raised in the same family is smaller than the effect of genes. (3) A substantial portion of the variation in complex human behavioral traits is not accounted for by the effects of genes or families" (p. 161).

The first law of the omnipresence of heritability in human behavioral traits comes, on first sight, as no surprise to evolutionary behavioral scientists because

genetic inheritance is a necessary ingredient for evolution to occur. On second sight, however, the law contradicts Fisher's Fundamental Theorem of Natural Selection, according to which traits that have undergone a natural selection process should show only small genetic variability. The heritability of many human behavioral traits, however, is usually rather high, generally roughly half of the total variance. This contradiction is a topic that has been discussed for years in evolutionary behavioral sciences and has been pretty much resolved. The discussion shall not be summarized here (see Euler and Hoier 2008).

The Turkheimer's second law reveals the family socialization belief to be an illusion and makes, together with the first law, the conventional findings of family socialization research uninterpretable. The second law is worded cautiously when it states that the family effect is "smaller" than the genetic effect. In most behavior genetic studies, the effect of the family, the so-called shared-environment component, is close to zero or even straight zero for personality traits other than intelligence (Plomin et al. 2001; Rowe 1994). Living together in the same family does not make siblings more similar to each other compared to children from other families. Put in popular terms: If you, the reader, and I, the writer, had exchanged our families in childhood, you having grown up in mine and I in yours, we would both be the same today as we are now. You might not sit there and read my chapter and I might not write it right now, but in terms of overall personality we would be the same. With general intelligence the matter is a bit different: Good or poor intellectual family socialization might be an asset or a handicap, which, however, does not last lifelong but disappears after at most a few decades.

A few caveats about the shattered family socialization illusion are necessary. Behavior genetic studies are typically carried out with samples within the normal range of family life in Western industrialized countries. Their findings can, therefore, not be generalized to exceptional family contexts, such as maltreatment of children and the like. Secondly, personality as assessed in these studies, usually with the Big Five personality dimensions, is much but not all of it. There are some traits that do have a sizeable family socialization component, namely general cognitive abilities, love style, vocabulary, musicality, and a few more (see Euler 2002). Third, Turkheimer's second law applies to adults, who generally do not co-reside with their parents, not to children or adolescents. Therefore, it should state "the effect of having been raised" instead of "the effect of being raised". A recent publication (Burt 2009) indeed indicates that there is some effect of shared environment in adolescent psychopathology.

Why are parents unable to mold the personality of their children durably, with all the possibilities of influence they have over many childhood years? The answer is found in life history theory. Childhood is a time of somatic effort, the acquisition of reproductive resources to be used for later reproduction, that is, for mating, parental, and nepotistic effort (Voland 2000). If new life efforts are required, such as mating effort after puberty and parental effort some time later, behaviors and interests change, in many species even the phenotype (Alexander 1987). The caterpillar spends all its time in somatic effort: eat and avoid being eaten. After pupation the

very same animal, in a completely different form, has a new interest, namely mating. What the butterfly learned as a caterpillar is of little help now.

Who is the best teacher or model for adolescents when they begin with mating effort, when many models are concurrently available? It would be inefficient to utilize only the vertical cultural transmission mode (learning from parents) irrespective of age and sex of the learner, stability of the environment, and content of the transmission (McElreath and Strimling 2008). Better is to use context-dependently also oblique transmission (learning from adults outside the family) and best is horizontal transmission (learning from peers). To take parents as models has several disadvantages. Within the family the task is to organize family interactions, not to learn about flirting and sex. As Harris remarked:

> A child's goal is not to become a successful adult, any more than a prisoner's goal is to become a successful guard. A child's goal is to be a successful child. (Harris 1998, p. 198)

The adolescent's peers, however, constitute the players in the mating market, and the peers are much more up-to-date on what is currently "in" than the old-fashioned parents, who don't even know what twittering is.

We tend to think that parents want the best for their children, but this is not always true and turns out to be another illusion that has been dispelled decades ago (Alexander 1974; Trivers 1974). Parents and offspring share half of the alleles, but only half. The fitness interests of the parents and those of the offspring are not identical. Parents may unconsciously manipulate their offspring for the service of parental fitness. It is in the deep interest of children and adolescents to evade this parental manipulation by not letting their parents shape their personality.

If no other models are available, as in early childhood, and when intra-familial behaviors are concerned, we can expect parental influences to show effects. When the offspring leaves the natal family, the parental investment is taken along as seed capital, but the parental norms are left behind. Parental influence may crop up again later, when the offspring has founded his or her own family (Euler 2002) and now does things the way the parent did and taught, like how to fold a man's shirt. Data on this conjecture are not available, because such particular family customs and practices are of little interest in mainstream psychology.

If an individual personality is determined only in part by genes, and not by family-specific influences, by which influences then? These influences are hidden in the non-shared component of environmental influences. The problem is that the non-shared part of the total variance is a left-over component, and it is unclear what it comprises. Harris has a prime candidate, namely the peers (Harris 1995, 1998). Harris presents convincing data and a group socialization theory to explain how this peer influence happens at the level of social-psychological group processes. However, environment is not only the social environment, but everything outside the genome, from the intracellular environment over the uterine environment to the social environment, including the internal representations of the world with all their dramas played out on the theater stage of one's own imagination. Ontogenetic development is a complex process in which there is ample room for chance events that may lead in a process of self-organization to individual differences (Molenaar et al.

1993). Not only evolution, also ontogenesis is to some extend open-ended. Fate may play a role in it.

The illusion of family socialization grew out of several mistaken ideas about children (Harris 1998): The nuclear family is a new invention, as is the private nature of family life. In the past it was more often a village that raised the child. Socialization is not something that parents do to kids; children socialize themselves and are guided in this process by a multitude of time-tested evolutionary psychological adaptations. Behavior is shown to be highly situation-specific; the play performed within the family is a different theater production than the acts shown outside the family. The reach of genetic influence into adulthood has been underestimated tremendously.

The illusion of family socialization is not just academic but has large societal consequences, even if not typically splashed out in news headlines. Even good parents may have problem kids, and problem parents may have children who turned out amazingly well. If a child has behavioral problems of any kind, parents, especially mothers, blame themselves and asked what they did wrong. Friends and other relatives find plausible causal attributions for the child's problem in past parenting procedures. The school teacher who talks to the mother with the problem boy during the yearly consultation hour inquires about past parent–child interactions, and if not, the mother surmises that the teacher will think that she was not a good mother. In psychoanalytically oriented psychotherapies the question of early parent–child interactions comes up again and again, so that the patient is induced to blame the parents. If we can trash the conventional illusion of family socialization, mothers can stop blaming themselves.

On the other hand, parents may be upset if they are told that what they do with the child will have no long-term effect. This is not justified, for two reasons. Parents can certainly influence their children, for example by influencing their children's peer contact: living in certain neighborhoods, preferring one school to another, mixing selectively with certain other couples with children, and so on. But most important: The best parents can do is not to try to form a certain child personality of their own preference, but to assure that the child has a happy and fulfilled childhood. The poet and philosopher Khalil Gibran says in his poem *On Children* (Gibran 1923):

> You may give them your love but not your thoughts,
> for they have their own thoughts.
> You may house their bodies but not their souls,
> for their souls dwell in the house of tomorrow,
> which you cannot visit, not even in your dreams.
> You may strive to be like them,
> but seek not to make them like you.
> For life goes not backward nor tarries with yesterday.

12.3 Conclusion

I have tried to expose two widely held beliefs about human nature, namely the negligible differences between man and woman and the power of parents to shape their child's personality permanently by the way they treat the child, as illusions with

major impact on the psychology of the family. Both beliefs, together with the blank slate illusion, I consider as the most important ones, but am not convinced that these illusions will be rejected soon. It may rather take generations before people will look back at the twentieth century and wonder how these beliefs could have been so well engrained and be maintained for so long.

There are a few other illusions about family interactions of minor importance, one of which might be mentioned briefly, namely the illusion of reciprocal exchange in families. Reciprocity regulates interactions between individuals outside the family unless modern economic markets determine prices and thus transactions (Fiske 1992). Family transactions, however, are characterized by communal sharing. Family membership alone entitles one to use the family resources without balancing gives and takes ("Family is where everyone can take things out of the fridge without asking"). Fairness disputes are therefore largely absent in the intergenerational transfer of resources. A mother does not expect her child to pay her investments back at a later time. She may be disappointed if Mother's Day was forgotten, but does not expect continuous thankfulness. I venture the hypothesis that this absence of reciprocity expectation is less obvious in nonbiological parent–child relationships, as with step-, foster-, and maybe even adoptive children, but supportive evidence seems unavailable.

To conclude, if human—as well as nonhuman—families are seen as a joint enterprise for reproductive profit (Davis and Daly 1997; Emlen 1995), the varieties of family structures can become highlighted and illusions instilled by an ideology of political correctness and by obsolete eminence-based assumptions can be exposed and debunked.

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