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Working Paper Theories of the Family and Policy

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Theories of the Family and Policy

Veronica Jacobsen, Lindy Fursman, John Bryant, Megan Claridge and Benedikte Jensen

> NEW ZEALAND TREASURY WORKING PAPER 04/02

> > **March 2004**



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D I S C L A I M E R	The views, opinions, findings, and conclusions or recommendations expressed in this Working Paper are strictly those of the author(s). They do not necessarily reflect the views of the New Zealand Treasury. The New Zealand Treasury takes no responsibility for any errors or omissions in, or for the correctness of, the information contained in this Working Paper. The paper is presented not as policy, but to inform and stimulate wider debate.		

Abstract

Policy interventions that affect or are mediated through the family typically assume a behavioural response. Policy analyses proceeding from different disciplinary bases may come to quite different conclusions about the effects of policies on families, depending how individuals within families behave. This paper identifies the implications of five theories of family and individual behaviour for the likely success of policy intervention. Anthropology documents not only the universality of the family, but also its many forms. Economic theory illustrates the capacity for well-intentioned policy to be thwarted by individual rationality. Evolutionary biology suggests that a number of fundamental drivers of behaviour are genetic predispositions and can be difficult to influence through policy. Sociology emphasises the role of social norms but recognises that individualism limits the influence of society generally on individual behaviour. Understanding the theories of the family emanating from different disciplines can enrich policy analysis by identifying how and why behaviour can be influenced. It also can serve to remind researchers of the resilience of the family and the limits of government intervention.

JEL CLASSIFICATION

- A12 Relation of Economics to Other Disciplines
- B49 Economic Methodology Other
- D19 Household Behaviour Other
- J12 Marriage; Marital Dissolution; Family Structure
- J18 Demographic Economics Public Policy
- K00 Law and Economics General
- R29 Household Analysis Other
- **KEYWORDS** family; kinship; family structure; family formation; family dissolution; public policy; family policy; regulation; New Zealand; Maori; History; Demography, Anthropology; Psychology; Sociology; Biology; Economics; evolution

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Theories of the Family and Policy

1 Introduction

Different disciplines can have quite different views about how and why individuals and families behave they way they do. This leads to different ideas about when and how a policy intervention might be required. Policy analyses proceeding from different disciplinary bases may come to quite different conclusions about the effects of policies on families and about how individuals within families behave. The result can be mutual incomprehension, unconstructive argument and poor policies that are not only ineffective but have unintended or even undesirable consequences.

All public policies rest on an implicit view of human nature. Laws designed to change behaviour, for example, are based on a belief that incentives affect decisions. Policies related to the family are based upon ideas about why families exist and how they should be structured. Similarly, policies related to sexual equality assume something about the human nature of males and females. The disciplines explored in this paper each provide a different perspective on the family and offer different insights about why and how people behave the way they do. Other fields, such as political science and religion also have theories of the family.

A truly multidisciplinary approach to policy analysis is rare. Policy analyses conducted by a practitioner of one discipline are seldom informed by other disciplines—each discipline typically proceeds as if no other existed or could be useful. Analyses of the same policy issue, but derived from different disciplines, use different premises, data and methods of analysis to arrive at quite different conclusions, not only about the nature of the problem, but also about the preferred policies and their effects. Policy debate in these circumstances can become acrimonious.

An appreciation of how different disciplines view the family, however, can contribute to a fuller and richer understanding of families. It can help inform policy dialogue and improve the process of policy formulation. It can animate debate by directing critical attention at essential disagreements about the assumptions and methodologies of different disciplines, rather than simply arguing about policy prescriptions.

Communication between disciplines is often limited by the knowledge people have of the analytical framework, methodology, theory and evidence of other bodies of literature. Scholars and analysts tend to identify with a particular discipline and become knowledgeable in a specific area. Each discipline alone can offer important insights for policymakers. However, no single one is likely to provide the definitive policy answer in every case. Different behavioural assumptions tend to favour some policy prescriptions and to rule out others. It is important, therefore, to draw from a number of disciplines and

ask what implications each has for explaining family and individual behaviour and analysing the rationale and effects of any policy intervention.

This paper seeks to describe the key features of different theories of the family that arise from different disciplines and to explore whether a multidisciplinary approach could be useful in policy formation. It draws on insights from five disciplines: anthropology, sociology, psychology, economics and biology. A number of questions are addressed in considering the theory of the family expressed in each discipline. What is the underlying explanatory framework? How do families form? How are families structured? How do families and in the individuals within them behave? How are families dissolved? Which behaviour in families is pathological? How have families changed over time? What are the critiques of the theory? What are the implications for policy? The answers to these questions provide an overview of the main features of the theory of the family within each discipline and promote an understanding of their policy implications for families and more broadly, for individuals.

The discussion of each discipline is by no means exhaustive. Many of the finer points are necessarily omitted in a brief summary that concentrates on the relevance of the discipline to the family. Rather, it provides an overview of the principal features of each of these disciplines in explaining how and why families form; how families are structured; how families and the individuals within them behave and make decisions; how and why families are dissolved; how and why people and families behave in ways that are socially undesirable or harmful; and how families respond to change.

Family structures in New Zealand are dominated by the traditions of Western Europe, particularly those of the British Isles, and of Maori society, as discussed in Section 2, which provides the historical and demographic context of the modern New Zealand family. Anthropology and sociology focus on social systems, including the family, rather than on individuals. The anthropological literature discussed in Section 3 provides evidence of the enormous variation that exists in the formation, structure and behaviour of families. The principal theoretical traditions of the sociology of the family, which examines the social causes and consequences of human behaviour in relatively modern, urbanised societies, are presented in Section 4.

Psychology and economics differ from sociology and anthropology in their focus on the individual. Social psychology and developmental psychology, the main theoretical fields of psychology that are relevant to the study of the family, are discussed in Section 5. The economics of the family, which applies economic theory to family issues such as marriage, divorce and fertility, is discussed in Section 6. The evolutionary biology literature focuses on the role of genes and their reproduction in driving human behaviour as discussed in Section 7.

Section 8 discusses the implications of using the insights of different theories of the family for policy-making. Conclusions are presented in Section 9.

2 History and demography

Much of the debate over the significance of families to government policy involves some implicit assumptions about the role of families in the past. This section examines the role and structure of the family in an historical and anthropological context. It begins by sketching the history of the western European family over the last 500 years, in order to provide a backdrop to New Zealand's European (predominantly British) roots. It then

summarises key demographic changes to the New Zealand Maori and Pakeha¹ families during the 19th and 20th centuries.

2.1 The Western European family

2.1.1 Family complexity

The history of the Western European family shows the endurance of the nuclear family. In England in the early 1500s, the average household contained immediate parents and children and perhaps one or two servants. Families typically were not large, and did not contain ageing parents (Laslett 2000). Early mortality often relieved the necessity of supporting aging parents who supported themselves or relied on the parish for sustenance.

Laslett has suggested that the nuclear family is one of the most distinctive elements of Northern and Western European experience (Anderson 1995). His analysis of parish records found that the average household size was only 5, although there was a long distribution, and diversity between social strata (Laslett and Wall 1972). Work by Laslett and colleagues broke down the long-dominant assumptions that households were historically large, multi-generational and complex and that nuclear families were the historical consequence of the industrial revolution, urbanisation and modernisation of society. They had been there before the industrial revolution.

2.1.2 Marriage and fertility

The importance of independent nuclear families in Western Europe also drove marriage and fertility decisions. People would delay marriage until either they or their spouse (preferably both) had access to an independent income stream. For the lower classes this meant going into service and saving to afford their own piece of land or cottage industry. For the middle and upper classes this meant that economic factors had a significant effect on the choice of marriage partner. Marriage, after all, was the most important vehicle for the transfer of property. It was far more important than the purchase and sale of property on the open market (Stone 1990). It is not surprising that the choice of marriage partner was a topic that dominated early modern literature. For these reasons, from 1600 until the late 19th century, Western Europe had an unusual marriage pattern in world history. Marriage was typically quite late (at age 28 for men, and 27 for women). A significant proportion of the population (between 10 and 20%) never married (Anderson 1995).

The rise of an urban industrial workforce increased the earnings potential of people from an earlier age, and created the possibility of marrying earlier, and having children at an earlier age. This had less effect on the number of children, and more effect on their distribution over the lifecycle. Families started to use early forms of contraception to limit child rearing into the early years of marriage. In the 18th century the average woman lived for barely 20 years from conceiving her last child. By the 20th century early fertility, family limitation and reduced mortality allowed women to live for 50 years following the birth of their last child. Average family size in England fell from five in the late 19th century to about four in 1900 and three by 1910 (Anderson 1995).

¹ "Pakeha" is a widely-used Maori term for non-Maori.

2.1.3 Changing social attitudes towards the family

While the core structure of the family remained surprisingly stable for hundreds of years, the meaning of family underwent a massive transformation. There were dramatic changes in attitudes towards affection, privacy, and individual rights (particularly from kin group and community interference) (Anderson 1995). The notion of "family" only referring to the conjugal couple and their children became common only in the late 18th and early 19th centuries. Before these dates the "family" usually referred to the household (including servants) and the whole kinship group.

According to scholars such as Stone, marriage was seen as an economic and reproductive institution rather than an emotional relationship in the England of the 1500s. It was primarily viewed as a contract between two families and a means of protecting and transmitting property. The wishes of the couple were seen as less important than the needs of the family. From the 1600s society underwent a gradual change with affection and sex becoming more important dimensions of marriage. Marriage changed from being viewed as primarily formal and tied up with economic survival for the general population, or social advancement for the higher social groups (Anderson 1995). In the 16th and 17th centuries parents and kin could exert enormous pressure on a couple, especially in the highest circles of society where financial pressure could be brought to bear. By the 18th century, mutual affection became more important.

In the 1500s and 1600s it was common for community and kin groups to interfere in the affairs of the nuclear family unit. For example, community pressure on the family unit culminated in public gatherings to expose "bad behavior" of errant spouses to public opprobrium. The trend towards individualism during the Enlightenment gave more weight to the individual rights and autonomy of the nuclear family unit. This picture is complicated by the fact that differences between socio-economic groups in the relative importance of mutual affection and more pecuniary motives for marriage, and in the extent of kin group interference continued throughout this period.

Perhaps the greatest social change in this period occurred in the position of women. Until the 19th century, women had few legal rights. Family relationships were authoritarian and patriarchal. On marriage, all of the property, earnings and children of a woman passed into the absolute control of her husband. Under the law husbands could beat and abuse their wives with impunity. By the mid 19th century, the move towards sexual equality began with the absolute authority of men being legally removed.

Over the last 500 years, social attitudes towards childhood have also changed. In medieval times, children were expected to take on adult responsibilities and there was very little concept of childhood as a separate phase in a person's life. Childhood became increasingly separated from adulthood and from the 1700's society began to believe that there were special obligations towards children including their rights to social protection. Gradually there evolved a modern concept of parenthood with its duties and obligations to the child (Anderson 1995).

From 1500 right until the late 19th century, legal divorce was virtually impossible for all but the very rich. Divorce rates started to rise from 1860, moving in fits and start until the explosive growth of the last half of the 20th century. Changing attitudes and behaviour were much more important than legal change in explaining trends in English divorce rates. Stone (1977) argued that a number of factors influenced the lack of divorce in the early modern period. The first involved internalised controls inculcated by religious values teaching women to obey their husbands and reinforced by external pressures from the community and kin against divorce. Marriages were an economic alliance between families and kin groups—building social, economic and political ties—that meant that kin had a vested interest in maintaining marriages. Thirdly, the Church could force couples to stay together. Finally, legal constraints made it virtually impossible to divorce, although there is little evidence that variations in the strictness of divorce laws influenced the degree of marital breakdown.

The decline in mortality probably played a role in increasing divorce rates after 1860, simply because it prolonged the duration of marriage. Although divorce was rare, remarriage was nevertheless common due to high mortality, particularly of women during childbirth. Reconstituted families were commonplace.

Changes in notions of marriage also affected attitudes towards marital dissolution. As romance and sexual attraction became more important over the centuries, these changes in the mode of spouse selection made it more likely that marriage partners would become disappointed and seek dissolution when their spouses did not live up to their romantic ideals. The increasingly individualistic emphasis in religious, philosophical and political thought resulted in changes to popular attitudes towards individual rights and roles. People began to demand the right to alter their destiny including the ability to separate from their spouses. It was only long after shifts in values and behaviour had taken place that the legislature slowly moved to alter the law.

2.2 The New Zealand family to 1945

The population of New Zealand as measured by census data has been largely non-Maori for the latter part of the 19th and all of the 20th century as shown in Figure 1. Statistics on the "total population" for much of the period therefore refer essentially to the Pakeha or non-Maori population.

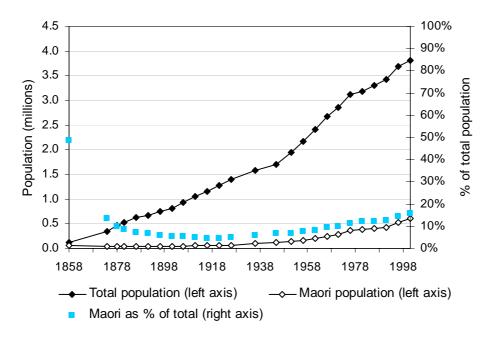


Figure 1 – Total population and Maori population, 1858-2000

Source: Census data, presented in Statistics New Zealand (2001b: Table 1.02)

2.2.1 The Maori family

Most available information on the pre-contact Maori family comes from Maori oral traditions, from archaeological evidence and from accounts from early explorers and from settlers who lived among the Maori. There is considerable uncertainty and complexity in the picture.

The main units of pre-contact Maori social organisation were *whanau, hapu, iwi* and *waka*². *Whanau*, like the English word "family", could include just parents and children or a wider group (just as, in English, a "family" get-together may include aunts, uncles and cousins). The *whanau* was the basic domestic unit, whether in the form of a nuclear or an extended family.

The wider social unit consisted of *hapu*—numbering from a dozen to possibly over 100 people—who combined in a variety of economic pursuits, sometimes in conjunction with other *hapu* depending on the scale of the activity. Belich (1996) includes this as an additional classification—the *hapu* grouping. The pattern of kin affiliations meant that an individual could have links with multiple *hapu*, and the distinctions between *hapu* could disappear over time. Alternatively, part of a *hapu* could break away and form a separate *hapu* group. Iwi were collections of *hapu* or *hapu* groupings, inter-related by lineage and custom. In many cases *hapu* had multiple *iwi* links.

The nuclear family—parents in an exclusive sexual relationship plus their children played a role in the system. However, the core domestic unit commonly contained other members either un-related, such as servants, or related, such as parents. Fertility has been estimated to be 4-5 births per woman before 1840 (Pool 1991:48).

Marriages were frequently used to further alliances between *whanau* and *hapu*, although there is evidence of marriage based on mutual affection. Polygyny was common among high status males (Orbell 1978).

Perhaps the most noticeable factor affecting the Maori family in the 19th century was the increase in mortality due to warfare and lack of immunity to introduced diseases. The resulting decline in population was rapid until the 1870s when it slowed and eventually reversed in the 1890s. Maori made up less than 6% of the total population by 1901, from over 50% in 1858. Accelerating the decline was the fact that many women failed to reach childbearing age. Even in 1900 when the population was increasing, female life expectancy at birth was estimated at 30 years, although women who reached the age of 15 could expect to live to 50 (Pool 1991:48).

The fall in population was initially greatest in those areas in which Maori had come into greatest contact with Pakeha. It was in these areas that the population also began to recover the most quickly, presumably because of the build up of resistance to disease.

In the 1870s Maori women gave birth to as many children as European women, but many Maori children did not survive into adulthood. In subsequent decades, birth rates increased gradually and mortality rates declined, leading to a gradual increase in population. This population increase was interrupted by the 1918 influenza pandemic, which killed an estimated 4% of the Maori population (Pool 1991:117).

Nineteenth century land losses put pressure on the increasing Maori population, leading to greater mobility and a gradual drift to towns and cities. However, until the late 1930s

² This description draws primarily on Belich (1996:83-89).

most Maori lived in small communities with minimal contact with Pakeha. This will have helped to preserve some of the features that made Maori families distinctive. Maori were more likely to live in extended families and/or have regular contact with members of the wider family group, who would often rely on each other for support. This was exemplified by the introduction of old age pensions from 1898, where payments to Maori over 65 would frequently supplement the incomes of the wider *whanau* group (McClure 1998: 27-28). The main characteristics of the Maori economy in the early decades of the twentieth century were semi-subsistence agriculture and food gathering in conjunction with income from casual labouring and domestic service. When casual employment dried up in the 1930s, this sparked increased urban drift once economic conditions improved. By 1945, a quarter of Maori lived in towns and cities and the isolation of the Maori family from Pakeha influences began its rapid decline.

2.2.2 The Pakeha family

The early New Zealand Company settlements were founded with the aim of establishing in the country a cross-section of Victorian British society, shorn of its undesirable elements of poverty and crime. Families were a central part of the plan, and the company aimed to recruit complete nuclear families to travel to the colony rather than single people (although many children failed to survive the arduous journey).

One of the main drivers of population increase in the decades after 1840 was the gold rushes, which brought to the country what Wakefield, who organised settlements, would have considered quite the wrong sort of colonist. This pattern continued to a lesser extent with the assisted migration of the 1870s—large numbers of young men seeking economic advancement and smaller numbers of young women seeking husbands (Belich 1996). Marriage for practical rather than romantic reasons was the norm.

The result of the migration imbalance was a large excess of males, a high proportion of whom never married. The ratio of males to females in 1874 (including Maori) was 131 to 100, dropping to 112 by 1911 and 104 by 1921. Censuses until 1901 showed that over 20% of European males over 45 had never married. As this proportion declined, the number of never-married females over 45 increased to pass 12% in the 1940s (higher than the male rate). The 19th century Pakeha community was thus polarised to a degree between single, often itinerant, males and settled families. Assisted passages for women from the 1860s, although they increased the number of women in the colony, appear to have done little to reduce the imbalance of the sexes, despite the opposite problem in Britain (a shortage of men).

Divorce was rare due to the limited grounds allowed, but became increasingly common from 1898 when the grounds for divorce were progressively extended.

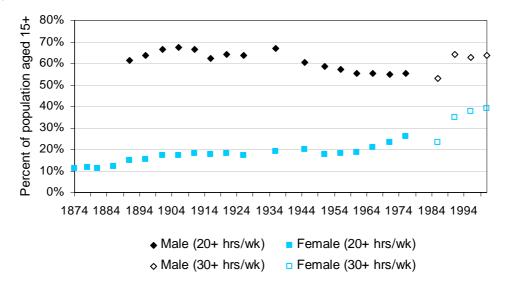
Ties with the extended families were weaker than in Europe, as families were split by migration. Legislation such as the Destitute Persons Act 1877 required family members to look after their indigent relatives. However, extended families were rare and there is little evidence of intra-family assistance in practice. The rate of dependency on family members would have been comparatively low due to the youth of the population (only 1% over 65 in 1881), the fact that fitter, healthier people tend to emigrate and survive the journey, and a high rate of property ownership that increased the independence of the elderly once they became more numerous from the 1890s.

2.2.3 The mothers' mutiny

The European population went through a dramatic demographic change from around 1880. At that time European and Maori birth rates were similar on the available evidence. The European birth rate dropped dramatically after that time while the Maori rate remained high for almost another century.

In 1876, the "total fertility rate" was 7 births per woman, among European New Zealanders. (The total fertility rate is the number of births the average woman would have over her life if prevailing age-specific fertility rates were to be maintained indefinitely.) By 1901 the European total fertility rate had fallen to 3.5. The decline continued at a slower rate until it reached 2.2 in 1935. The change was part of an international trend that would have come to New Zealand through migration. However Pool (1991:105) claims that, in its early stages, the Pakeha "baby bust" was far more dramatic than in other countries. Belich (1996) labels the trend "the mothers' mutiny".

The reasons for the fertility decline are still debated. Initially it coincided with a rise in the age of first marriage as the excess of females in the population declined. In 1876, 83% of women aged 25-29 were married, in 1900 just 58%. However, the marriage rate increased from 1900 and the age of first marriage fell, as did the age of first childbirth from about 1914. The continued fall in fertility rates was therefore a result of parents choosing to limit family sizes, despite the rudimentary contraception available. Depressions in the 1880s and 1930s, and a slump in the 1920s, may all have contributed to reduced childbearing. But the fall continued in good times as well as bad.





Note: The labour force participation rate is defined here as the number people aged 15 and over in full time employment or unemployed, divided by the number of people aged 15 and over. Only from 1951 does it include Maori. For the period 1874 to 1981, full time employment was defined as 20 or more hours a week, while from 1986 onwards, it was defined as 30 or more hours per week.

Sources: 1874-1891 – Olsen and Levesque (1978: Table 1.3); 1896-1996 – Statistics New Zealand (1998b: 306); 2001 - Census 2001 data from Statistics New Zealand online database.

Improved job opportunities for women played a role, particularly from the 1890s with the expanding role of government. Jobs in shops, offices, schools and hospitals gradually replaced those in domestic service and factories. Female participation in the full-time workforce increased, reaching a peak of 21% in 1921, a level not surpassed again until 1966. However, these changes in the main followed the initial fertility decline rather than

preceding it. In addition, women tended to leave the workforce once they married—in 1921 only 9% of the full-time female workforce was married.

The explanation favoured by Belich (1996) and Thomson (1998) is the increasing cost of having children brought about by governmental and social changes. The most obvious of these is the introduction of compulsory education in 1877 and the rapid expansion of education thereafter. While education was nominally free, clearly there are costs associated with it—in school materials and more importantly in the opportunity costs. A child in school is unable to work on the farm or in a factory, or contribute to housework. There were just 55,000 school children in 1875. Numbers increased to 97,000 in 1880, 136,000 in 1890 and 222,000 by 1915 (the modern baby bust from the mid-1970s also appears to have been correlated with a big expansion in educational participation).

In the late 1800s the government legislated to restrict child labour, and inventions such as milking machines helped reduce the necessity for large families. In addition, social movements such as the "cult of domesticity" discussed below helped reduced the birth rate. According to Thomson (1998:158) "Parents' expectations of what they could and should give their offspring rose—more education, more goods, more care, time and attention—and in response they sought fewer, "quality" children".

2.2.4 Government and social influences

What modern historians refer to as the "cult of domesticity" had its origins in the late 1800s. The key features were an increasingly "scientific" approach to keeping house and raising children and an emphasis on the home environment as a place to improve community morals through the purifying influence of women. Culturally the movement had links with early feminism and the related temperance and prohibition movements. The scientific approach is exemplified by the foundation in 1907 by Frederic Truby King of the Plunket Society, and the institution of home science from 1912 as a degree course at Otago University.

As noted above, the cult of domesticity did nothing to raise the birth rate and probably contributed to its further decline as women devoted more time and effort to their existing household rather than to producing more children. In addition, urbanisation (the population was 68% urban by 1926) brought with it opportunities for activities outside the home and an apparent change in social attitudes. Love and companionship became more explicitly reasons for marrying (Olsen and Levesque 1978).

The expanding state increasingly took over the role of child rearing. At the turn of the 19th century only primary schooling was free. From 1903 the number of state-funded secondary places was progressively expanded until secondary schooling was predominantly free by 1916. The government also established institutions for deviant youth, whose care would previously have been left to the extended family.

Governments expressed concern about the falling Pakeha birth rate, and introduced a number of pro-natalist policies. Lower tax rates for families with dependent children were introduced in 1914. In 1911 a benefit for sole mothers, the Widow's Pension, was introduced for mothers with dependent children under 14 whose husband had died. The State Advances Act of 1913 consolidated earlier legislation providing cheap government finance for houses and farms. Lending to low-income families expanded considerably under this Act. In 1926 the first family allowances were introduced for low-income families with more than two children, although unwed mothers and those of bad character were excluded.

Despite a variety of pro-natalist initiatives, the birth rate continued to decline. Measures introduced by the Labour government from 1936 went a lot further, and appear to have had some influence in raising birth rates. Measures included increased family benefits (later universal), free maternity care and pre and post-natal services, increased unemployment benefits, free school milk, a minimum wage intended to allow a father to support a family, and a state housing programme which aimed to provide quality homes in which parents could raise healthy families.

Increasing birth rates from 1936 may simply reflect improving economic conditions rather than the influence of Labour's policies. But there is little doubt that the idealisation of the family, backed by government action, was to have a significant influence from the mid 1940s, when birth rates rose and women's labour market participation declined.

2.3 The New Zealand family from 1946

The post-World War II history of the New Zealand family can be divided into two phases: the baby boom, lasting from the 1940s to the 1970s, and baby bust, from the 1980s to the present. Section 2.3.1 examines some of the changes involved in the move from baby boom to bust, first setting out some of the quantitative data, and then raising some points of interpretation. Section 2.3.2 discusses changes in family structure, and Section 2.3.3 uses data from the 1998-9 New Zealand Time Use Survey to examine the division of labour between genders.

2.3.1 The baby boom and after

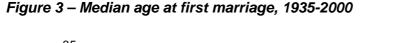
A summary of some major demographic and social trends during and after the boom is given in Table 1. The remainder of this section will present data on these trends. Where possible, separate estimates will be presented for Maori and non-Maori.

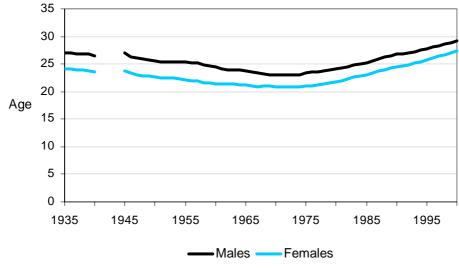
	Baby boom (1940s to 1970s)	After the baby boom (1980s to present)
Marriage		
Age	Early	Late
Proportions marrying	High	Moderate
Legal vs <i>de facto</i>	Almost all legal	Significant de facto
Divorce	Low	Moderate
Fertility		
Age	Early	Late
Level	High	Low
Marital status of mother	Almost all married	Significant unmarried
Labour force participation		
Female	Low	Moderate
Male	High	High

Table 1 – Marriage, fertility, and labour force participation during the baby boom and after

Figure 3 shows that the median age at which men and women entered their first marriages declined by several years over the two decades following World War II. By the late 1960s it had fallen to 21 years for females and 23 years for males. These ages are

extremely low for a predominately European population. From the mid-1970s, however, the median ages had begun to climb.





Source: Statistics New Zealand (2001b: Table 3.05)

At the same time as the median age of those who did marry was rising, a growing proportion of New Zealanders were not marrying at all. This is apparent from the data on proportions legally married shown in Figure 4. The figure also gives estimate for the proportion of people in de facto marriages. *De facto* marriages became more common between 1981 and 2001. The increase in *de facto* marriages was not been sufficient, however, to offset the decrease in legal marriages, so that the proportion of people in either *de facto* or legal marriages fell.

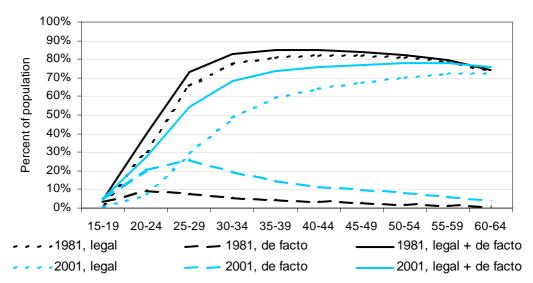


Figure 4 – Percent of population in legal and de facto marriages, 1981 and 2002

Note: The figure shows estimates for the combined male and female population

Sources: Calculated from 1981 Census data presented in Statistics New Zealand (Statistics New Zealand No date: Tables 14, 15) and 2001 Census data from Statistics New Zealand's online database

(http://xtabs.stats.govt.nz/eng/TableViewer/wdsview/dispviewp.asp)

Legal marriage is now less common among Maori than among non-Maori, as can be seen in Figure 5. The estimates for people aged 60 and over are, however, an exception. Maori in this age group—who would have been entering the main marriage ages during the baby boom—appear to have just as high a probability of ever marrying as other New Zealanders of the same age. Maori in earlier periods had not seen any great need to ask non-Maori officials to provide legal sanction for their marriages (Pool 1991: 109) so the baby boom may well have been the high water mark for legal marriage among Maori.

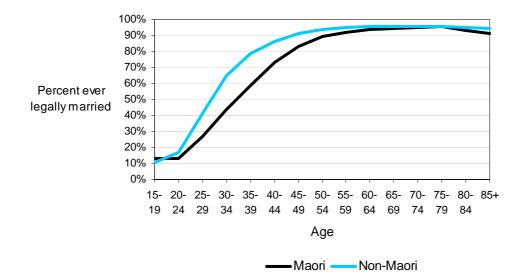


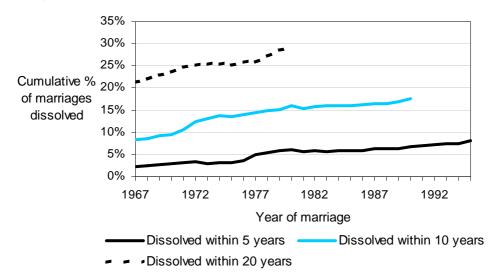
Figure 5 – Percent of age group who have ever been legally married, 2001

Source: Calculated from 2001 Census data, available from Statistics New Zealand website

Across the whole population, legal marriages have become somewhat less enduring over recent decades (comparable data is not available for de facto marriages). Figure 6 gives estimates of the proportion of marriages dissolved within 5 years, 10 years, and 20 years. The figure shows, for instance, that a couple marrying in 1967 had only a 2% chance of divorcing one another within 5 years, an 8% chance of divorcing within 10 years, and a 21% chance of divorcing within 20 years. Couples marrying in later years have experienced steadily higher probabilities of dissolving their marriages within the durations given.

Baby boom marriages were not just early but also fertile. As Figure 7 shows, fertility was higher in 1960 than at any time during the twentieth century. The fertility indicator shown in Figure 7 is the "total fertility rate". This is the sum of the age-specific fertility rates for the year; it can be interpreted as the average number of children a woman would bear over her lifetime if prevailing fertility rates were to obtain indefinitely. Fertility rates for the whole population declined rapidly after 1960; rates for the Maori population declined precipitously.

Figure 6 – Cumulative percentage of marriages dissolved within the indicated period



Source: Statistics New Zealand (2001b: Table 3.11)

Definitional issues complicate interpretation of the trends in Maori fertility. Up until 1990, the ethnicity of a birth was determined by the "degree of blood" of the child; after that date it was determined by the self-identification of the mother. The apparent increase in Maori over the 1990s may well be an artefact: the switch to the self-identification definition may have revealed differences that the less socially meaningful "degree of blood" definition had obscured.

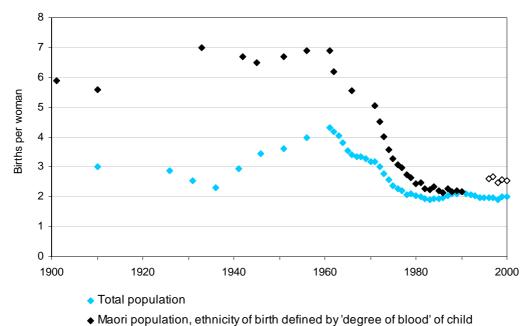


Figure 7 – Total fertility rate, Maori population and total population, 1900-2000

♦ Maori population, ethnicity of birth defined by self-identification of mother

Notes: 1. The total fertility rate is defined as the number of births a woman would have over her lifetime if prevailing age-specific fertility rates were maintained indefinitely. 2. Data for 1962-1990 are based on the "de facto" population, data for 1991-2000 on the "resident" population. See the text for details.

Sources: Maori 1901-1966 – Pool (Pool 1991); Total 1926-1961 – Statistics New Zealand (1998b: Table 5.10); Total and Maori 1962-2000 - Statistics New Zealand (2001b: Table 2.08). Besides having fewer babies than during the baby boom, most New Zealand women also now have them later. As Figure 8 shows, the peak childbearing years for the population as a whole has moved back by several years. The shift is, however, much less marked for Maori women.

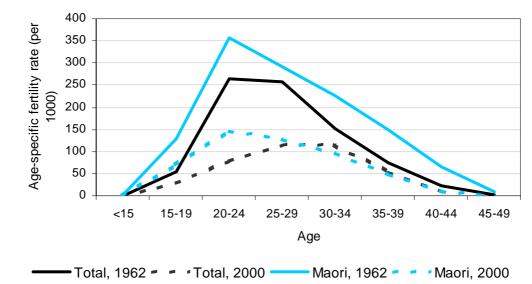
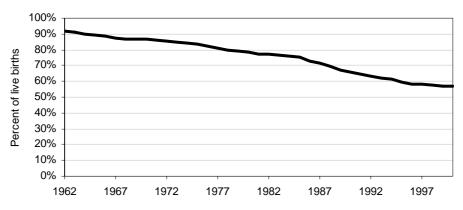


Figure 8 – Age-specific fertility rates

The data on the marital status of mothers shown in Figure 9 imply that there has been a steady decline during recent decades in the proportion of babies born to mothers who were legally married at the time of the birth. Childbearing has become less tightly linked to legal marriage. An unintended pregnancy is now much less likely to precipitate a formal marriage, and a formal marriage is no longer a prerequisite to intentionally becoming pregnant (Dickson, Ball, Edmeades, Hanson and Pool 1997: 221-5).

Figure 9 – Percent of live births to married mothers



Source: Statistics New Zealand (2001b: Table 2.04)

One final contrast between the baby boom and after is the degree to which women participate in the labour force. Figure 2 presented estimates of male and female labour force participation. The estimates extend back to the 1870s, but to achieve some comparability across time it has been necessary to use a slightly unusual definition of labour force participation. As with standard definitions, the labour force participation rate is calculated as the number of working age people who are employed or unemployed but looking for work, divided by the number of working age people. However, whereas most modern series usually include part-time workers as employed, this series does not. Up

Source: Statistics New Zealand (2001b: Table 2.11)

until 1976, full-time work is defined as 20 or more hours per week; from 1986 it is defined as 30 or more hours. The working age population is defined as ages 15 and higher.

Figure 2 shows women's labour force participation increasing slowly between the 1970s and 1960s, and then increasing somewhat more quickly afterwards. Interpretation of post-1960s trend is made more difficult by the definitional change between 1976 and 1986, which would have reduced measured labour force participation. Even allowing for the definitional change, the estimates for both males and females 1986 appear anomalous. The message is, nevertheless clear: female labour force participation has moved to historically high rates since the baby boom. Although participation rates for men appear to have moved around over time, no long term trend up or down comparable to that women is apparent from the figure.

Over recent decades, women's hourly earnings have gradually been converging with those of men. Hourly earnings for women were 73% of those of men in 1974, and 86% in 2001 (Ministry of Women's Affairs 2002: Figure 1).

Interpreting and explaining the trends outlined above is difficult and contentious, and this section aims only to make a few basic observations. An overview of existing analyses of the New Zealand family is provided by Shirley, Koopman-Boyden, Pool and St John (1997).

Many social commentators regard the family of the baby boom era as the prototypical "traditional" family. There is some justification for doing so. The baby boom era marked the end of a long period when many features of the contemporary family such as de facto marriages, significant divorce rates, and women in the workforce were still rare. But, at least for Pakeha, the baby boom was itself something of an innovation. As illustrated by Figures 3 and 6, the Pakeha baby boom generations married exceptionally early and had exceptionally many children compared to generations before them.

A second point to note is that in New Zealand, as in other countries, the various features of the baby boom family such as those listed in Table 1 were mutually reinforcing (Lee and Casterline 1996). High fertility, for instance, required low labour force participation by women, which made them dependent on men. This dependence was made less risky by the use of a legally sanctioned marriage contract with a relatively low probability of divorce. Change in one part of the system implied change in the other parts. Lower fertility, for instance, freed up women to enter the labour force, which made them less dependent on men, and helped make possible the rise of divorce and de facto relationships. Causation also ran in the opposite direction: an increase in the probability of divorce made it more risky to withdraw from the labour force and have children.

Changes in the family were of course bound up with wider changes in society. One such change was the rise and fall of a wide range of government policies, from family benefits to controlled interest rates, favouring young families (Thomson 1996). Another was the temporary return of the "cult of domesticity" described in Section 2.2.4. The decades since World War II have seen particularly dramatic changes in Maori society, from urbanisation, the rise in formal employment and the rapid reduction in childhood mortality rates. This helps explain why many features of Maori family life, such as fertility levels, were so rapidly transformed.

2.3.2 Family and household structure

Social scientists generally use the term family to refer to a group of closely related kin, not necessarily living together. They use the term household to refer to a group of people, not necessarily kin, who live together.³

Table 2 uses a fairly crude typology to set out some basic information about household and family structure. Households in the table are assigned the ethnicity of the "occupier" (the "reference person", formerly the "household head.") An "extended" household is one containing more kin than just a couple and their children. The "stem" households, described in Section 2.1, with a grandparents, parents, and grandchildren, would be a typical example. As Table 2 shows, extended households are more common among Maori than among Pakeha, as are sole parent households. For both Maori and Pakeha, the mix of household types changed significantly between 1976 and 1996. Such changes are typically a product of demographic trends, such as shift to having fewer children, changes in the norms governing co-residence, such as a greater acceptance of solo parenting, and assorted other factors, including the availability of housing. Determining the relative contributions of various sources of change is difficult.

	Pakeha*		Ма	ori*
	1976	1996	1976	1996%
Two parent	43%	31%	48%	30%
Couple only	21%	28%	8%	12%
Sole parent	5%	8%	7%	19%
Extended	9%	6%	22%	19%
One person	15%	22%	7%	13%
Non-related	7%	5%	7%	6%
Total	100%	100%	99%	99%

Table 2 – Percent of households by type

*Ethnicity of the "occupier" ('the "household head" or "reference person.')

Source: Dickson, et al (1997: Appendix 4) cited in Dharmalingam, Pool, Sceats, and Singley (2000: Appendix Table 5.4).

One feature of co-residence patterns with particular policy significance is the living arrangements of older people. Table 3 presents data on the living arrangements of people aged 65 and over in 1996.⁴ The table shows that most older people live with their spouse or live alone. The proportion living alone has been increasing over time: in 1966 it was only about 20% whereas by 1996 it was 28% (Statistics New Zealand 1998a: 41).

³ Studying family and household structure requires a classification system. Classification systems can be complex. Statistics New Zealand for instance, distinguishes seven types of "one-family household': "Couple only," "Couple only and other person(s)," "Couple with child(ren)," "Couple with child(ren) and other person(s)," "One parent with child(ren)," and "One-family household, not further defined." Statistics New Zealand "Statistical Standard for Family Type" (http://www.stats.govt.nz/domino/external/web/carsweb.nsf/Standards?openview) and a table entitled "Household Composition for Households in Private Occupied Dwellings, 1991, 1996 and 2001" (http://xtabs.stats.govt.nz/eng/TableFinder/variableDisplay.asp). These distinctions can be important. Use of a cruder typology might, for instance, have obscured the fact that "one-quarter of Pakeha, one-third of Maori, and almost half the Pacific Island sole-parent families are not in sole-parent households" (Shirley, Koopman-Boyden, Pool and John 1997). The more complex a typology, however, the harder it is to identify trends and patterns.

⁴ Although some of the living arrangements shown in the table are not in principle mutually exclusive, the Statistics New Zealand (1998a) report from which the data were obtained seems to imply that overlap is in practice rare.

Living arrangements	Percent of older people
With spouse/partner	49%
Alone	28%
With children	11%
With sibling or parents	1%
With other relatives	5%
With other people	6%
Total	100%

Table 3 – Living arrangements of people aged 65 and over, 1996

Source - 1996 Census data, cited in Statistics New Zealand {, 1998 #4194}.

Note – These estimates include people living in institutions and in private dwellings.

2.3.3 Sex/gender roles

The 1998-9 New Zealand Time Use Survey provides information on how males and females allocate time for work and leisure. Table 4 provides a broad overview of the results. Males and females spend approximately the same time on personal care and on leisure. There is a substantial gender difference, however, in the allocation of time to the various forms of work. Formal education and paid employment are described as "contracted time", and unpaid activities such as care giving and housework as "committed time." As might be expected, males have more "contracted time" and females more "committed time".

	Females	Males
Necessary time Personal care such as sleeping, eating, hygiene	46%	44%
Contracted time Labour force activity, education, and training	12%	21%
Committed time Housework, caring for household members, shopping, unpaid work outside home	20%	12%
Free time Religious, cultural, civic participation; sport, hobbies television, other entertainment	22%	23%
Total	100%	100%

Table 4 – How New Zealanders aged 12 and over spend the average day

Source: Statistics New Zealand (2001a: Figures 1.1, 1.2)

The survey contained questions about the allocation of time by parents with children. It found that mothers whose youngest child was aged 0-4 spent an average of 7.5 hours a day on unpaid work, while mothers whose youngest child was aged 14-17 spent 4.5 hours. For fathers the corresponding figures were 4.0 hours and 2.5 hours. The survey also found that mothers in the paid workforce worked an average of 20 hours a week if their youngest child was aged 0-4, and 35 hours a week if their youngest child was aged 14-17. For fathers the corresponding figures were 42 hours and 48 hours (Statistics New Zealand 2001a: Figure 2.1.19). Though many mothers work, the continued existence of a gender division of labour is clear.

3 Anthropology

Anthropology involves the "study of mankind". It is extremely diverse, draws on many intellectual traditions and covers state-society relations, gender roles, marketing systems, migration, ethnic conflicts and religious change. Early anthropology paid special attention to kinship, but it now receives less attention, partly because of an increased interest in modern societies where kinship does not dominate every sphere of activity. This section draws on mainstream cultural and social anthropology which is concerned with the empirical study of culture and social structure mainly, though not exclusively, in non-Western societies.

3.1 Explanatory framework

Cultural anthropology has no universally shared explanatory framework equivalent to natural selection in evolutionary psychology or constrained maximisation in economics. Anthropologists do, nevertheless, share some common aims, interests, and methodologies. They generally look for holistic explanations, and routinely invoke economic, political, social, and cultural forces in their analysis. At the same time, of all the social sciences, anthropology has the greatest interest and expertise in culture—in shared symbols, norms, and frames of reference. Anthropologists pay special attention to the cultural causes and effects of phenomena (Greenhalgh 1995). Anthropologists spend long periods conducting participant observation, typically using extended fieldwork, but they also use surveys and archival research.

There has long been an implicit division of labour within the social sciences whereby sociologists study Western societies, and anthropologists study non-Western ones. Although the most sophisticated anthropological research in New Zealand has dealt with Maori (eg Firth 1959, Metge 1995), ethnographic studies of Pakeha have been done (Sawicka and Urry 1997). Distinguished anthropologists have also studied kinship in the United Kingdom and the United States (Firth, Hubert and Forge 1969, Schneider 1980).

Anthropologists have typically been more interested in differences than in similarities, particularly in those practices that differ markedly from those of modern Western societies. A notable example is Geertz, who has suggested that anthropologists should be "merchants of astonishment" who "hawk the anomalous, peddle the strange" to demonstrate that practices that Westerners take for granted or see as natural are in fact culturally specific and socially constructed (Geertz (1984 cited in Pinker (1995: 411)).

The richness of anthropological observations of families across cultures provides evidence of the enormous variation that exists in the formation, structure and behaviour of families. It also allows theories of the family, which might implicitly be specific to a particular culture, such as a modern, industrialised, Western society, to be tested for their general applicability in other societies.

3.2 Family formation and structure: Family systems

Anthropology does not have a unified theory of how families form and are structured. Rather, it emphasises the mutually reinforcing nature of different dimensions of families that make up kinship systems. Anthropologists typically compare families of different cultures across a number of different dimensions, including co-residence rules, patterns of authority, descent, marriage, property and kinship terms. Different cultures have different rules about who should live with whom. Some require newly married couples to live with the parents of the groom, for instance, while others require them to live with the parents of the bride. There are also less familiar arrangements, such as having all the adult males of the village live together in one type of house, and adult females and children live together in another type of house (Yanagisako 1979: 165)

The mutual rights and obligations of kin also vary. In some places and eras parents are expected to choose their children's spouses, for instance, while elsewhere they are not. In the medieval Chinese law code, household headship passed from the father to the eldest son on the father's death. Although the Vietnamese code was largely based on the Chinese code, it prescribed that headship passed to the mother (Ta Van Tai 1981).

In many societies (though not those originating in Northwest Europe) descent lines are a fundamental aspect of social structure. These lines generally run from father to son, but sometimes run from mother to daughter, or take other forms. Social descent is not the same as biological descent. Most societies, for instance, permit adopted children to carry on the descent line, and in some places children born to a man's wife years after the man has died are considered to belong to the man's descent line (Townsend 1997).

There have historically been a variety of marriage types, from monogamy, to polygamy and polyandry. Societies also differ in who is considered a potential marriage partner. In much of northern India, for instance, women are expected to marry a stranger from a different village, while in southern India, women are expected to marry cousins whom they may have known since childhood (Dyson and Moore 1983).

Particularly among peasants, much property has traditionally been exchanged through non-market transactions among kin. In many African societies, for instance, the kin of the groom make a substantial payment of cattle to the kin of the bride as part of a marriage (a payment known as "bride price" or "bride wealth"). Nn most parts of China, the family of the bride transfers resources to the bride and groom (a dowry).

The terms people use to address kin generally group people together in socially significant ways. In Vietnam, where descent lines running from father to son are vitally important, people use an almost entirely different set of kin terms for referring to kin related through the father's side and kin related through the mother's side. In contrast, the British and their offshoots, who do not have strong descent lines, use the same terms for kin on both the fathers' and mothers' sides.

Different aspects of kinship in a given society are often to some extent mutually supporting. The fit between descent ideology and kinship terms in Vietnam and in English-speaking societies has already been noted. Another example is that, in traditional China, land, authority, and descent all passed from fathers to sons. Anthropologists have accordingly found it useful to refer to kinship *systems*. The study of how the different aspects of a kinship system evolve together in response to environmental conditions, state action, demographic change, and other influences is major part of anthropology.

The idea of a family system can be illustrated with the example of the kinship system of mid-20th century northeast Thailand. Following marriage a man was expected to move into the household of his wife. This household would be composed of the wife's parents and unmarried brothers and sisters. The newly married couple would remain in the wife's parents' household until another of the wife's sisters married and brought in a husband, at which point the couple would establish their own household, often in the same compound as the wife's parents. The last sister to marry would remain in the parents' household until

the parents' deaths, receiving the house in exchange for old age support. Parents passed rice land to their daughters, generally before the parents died. The large payment, which grooms made to the mother of the bride at the time of the marriage, is often interpreted as a payment for access to this land. Although the wives owned the land, the husbands were considered to be the household heads. As in most of Southeast Asia, the northeast Thai kin system did not have formal descent lines (in anthropological jargon, descent was "bilateral".) Kinship terminology did, however, make some distinctions between kin on the mother's side and kin on the father's side (Keyes 1975).

The concept of family systems needs to be handled with care. Descriptions of family systems, such as the one presented for northeast Thailand, usually refer to cultural ideals. Practice often departs from the ideal. Sometimes the reasons for the transgression are idiosyncratic: a son might refuse to live with his parents, for instance, because of a family feud. Sometimes the reasons are systematic: high mortality or low fertility can mean that crucial kin roles are not filled, preventing a family from conforming to the cultural ideal. This is one reason why, for instance, few Chinese families have ever been able to conform to the ideal of four generations under one roof.

Compared to early theorists (see for example Radcliffe-Brown and Forde 1950) anthropologists now posit a looser fit between the different aspects of a kinship system. They emphasise, for instance, that a family with a patrilineal descent rule in one society may differ significantly from a patrilineal family in another society. Sometimes different parts of a family system can pull in different directions, as in northeast Thailand where the principle that the male household heads supervised production was in tension with the principle that the females owned the land. Anthropologists have accordingly criticised demographic historians who try to use data on household composition to make inferences about other aspects of the family (Laslett 1971, Yanagisako 1979).

Contemporary anthropologists also emphasise that family systems vary between social classes. An extreme example is the difference between the patrilineal descent rules of the Thai royal family and the bilateral rules of their subjects. A less extreme example is that of dowry in India, where only wealthier castes traditionally paid dowries—though more recently the practice has been emulated by poorer castes.

3.3 Family dissolution and reformation

Anthropology has no overarching theory of what determines levels of marital dissolution. Along with other comparativists, anthropologists emphasise that divorce is tied up with other aspects of the specific family system, and that local context matters a great deal.

This specificity is illustrated by the dramatic fall in divorce levels in Islamic Southeast Asia (Jones 1997). In the West, industrialisation, urbanisation, and women's entry into the labour force have coincided with rising divorce rates, leading some scholars to claim connections between divorce and modernisation. The case of Islamic Southeast Asia (Malays in Indonesia, Malaysia, Singapore, and Thailand) is a striking exception to such claims. Since the 1950s, Islamic Southeast Asia has undergone an extraordinarily rapid process of modernisation. Divorce rates have, however, fallen from a level several times higher than those in the contemporary West to an even lower level.

The decline in divorce rates in Islamic Southeast Asia appears to have a number of different roots. Part of the decline was due to a dramatic reduction in divorce among teenagers. Divorce among teenagers had been a product of combining an Islamic tradition of arranged married at young ages with a long-standing Southeast Asian

tolerance of divorce: parents hurried their children into early marriages, but did little to prevent a divorce if the couple proved incompatible. For reasons not fully understood, early, arranged marriages disappeared very quickly after the 1950s. Another reason for the fall in divorce rates was the campaigns by both women's groups and Islamicists to strengthen the institution of marriage. These campaigns succeeded in increasing legal obstacles to divorce and reducing community tolerance for it. Yet another reason was the decline in polygamy, which had been "an irritant and source of suspicion in many marriages, and a direct cause of many divorces initiated by wives who learned of their husband's intention to take another wife" (Jones 1997: 105). As Jones notes, trends such as rising labour force participation may have had countervailing effects on the divorce rate, but the historically specific ones swamped these effects.

Divorce started from such difference situations—a formerly stable, high-divorce system in Islamic Southeast Asia and a relatively low-divorce system, constrained by social conventions and legal restrictions, in the West—that the changes in each system when confronted by economic and ideational change really have to be explained in their own terms; attempts to compare them according to some universalist theory of divorce are necessarily contrived

(Jones 1997: 109)

3.4 Family behaviour

3.4.1 Responsibility for children

In ethnic groups originating from Europe, such as Pakeha in New Zealand, most of the rights and obligations associated with childcare lie with the children's parents. Parents have primary responsibility for providing discipline, emotional support, and the necessities of living. Children are expected to reside with one or both parents. Most models of the family in the Western economic and sociological literature start from the assumption that parents are the main or only caregivers.

Anthropologists have shown, however, that people in some cultures disperse responsibilities for childcare across a wider range of kin than people in the West. In describing Maori family life during the 1950s and 1960s, for instance, Metge (1995) repeatedly emphasises that kin other than parents assumed much greater responsibilities than was typical for Pakeha. Aunts, uncles, and grandparents were expected to administer discipline freely, without the need to consult the children's parents. Kin other than parents were often the main providers of praise, because a parent who praised a child could be seen as boastful. Children ate and slept at the houses of kin other than parents often took major decisions about children's upbringing, such as whom they would live with.

The contrast between Pakeha and Maori assumptions about responsibilities for childcare was particularly apparent in the case of adoption. The Pakeha model, legally enforced through measures such as the 1955 Adoption Act, concentrated all rights and obligations in the hands of the adoptive parents. The Maori model shared rights and obligations more evenly among adoptive parents, biological parents, and the wider kin network (Metge 1995: Part IV).

3.4.2 Gender roles

Anthropologists have documented that women are universally associated with the childrearing and with the "domestic" sphere, though there is an enduring technical debate on how to define "domestic" in a way that is valid across different cultures (Yanagisako 1979). Something that distinguishes anthropological research about gender roles from, for instance, economic research is that anthropologists are interested in why societies accord different status and value to the roles of men and women. Anthropologists sometimes question the conventional wisdom that women's contributions are universally devalued compared with men. A few anthropologists have claimed, for instance, that there are some societies without capitalist economies and modern states in which women and men are "separate but equal" (Leacock 1978).

Other anthropologists argue that the devaluation of women's roles is in fact universal, and look for ways to explain it. A common thread in many explanations is that women and men are universally identified with opposite sides of fundamental dichotomies such as "nature" versus "culture," or "private" versus "public," with women attached to the less valued side, such as "nature" or "private." A great deal of ethnographic material on topics ranging from creation myths to the seclusion of women has been produced in support of these views. There has also, however, been extensive criticism. Some writers have argued, for instance, that the "nature" is not always devalued relative to "culture." Others have claimed that distinctions such as public versus private that make sense in modern industrialised societies can not be applied to very different societies such as those of hunter gatherers (Yanagisako and Collier 1987).

3.5 Family pathology

Family systems can have a powerful influence on how individuals behave within families. An example of a family pathology on which anthropology has important insights to offer is the "missing" females of Asia. As Sen (1989, 1990) has pointed out, the ratio of males to females in South Asia and East Asia is far higher than elsewhere in the world. This high ratio suggests the existence of abnormally high female mortality, whether through neglect or deliberate infanticide, or the existence of sex-selective abortions. Calculations of the number of females who would be alive if the sex ratio at birth and the ratio of female to male mortality been close to that of Europe or sub-Saharan Africa produces figures of tens of million "missing" females.

There are conflicting claims about the extent to which geographic variation in sex ratios is explained by variation in standard socio-economic indices such as labour force participation, education, and income (Croll 2002, Klasen and Wink 2002). There is little disagreement, however, about the central importance of family systems. Essentially, family systems like those of most of East and South Asia make daughters much less valuable than sons. In East and South Asia, descent lines typically run from fathers to sons; daughters leave home at marriage while sons remain; and sons (with their wives) have primary responsibility for old-age support. If, because of government policy or the heavy costs of childrearing, couples are forced to limit themselves to one or two children, and if at least one of these children must be a son, then parents may not wish to leave the gender composition of their offspring to chance. This interpretation is amply supported by testimony from parents collected by anthropologists all over the region (Croll 2002). In contrast, in Southeast Asian countries such as Thailand where the family systems place no special premium on males, the problems of "missing" females seems to be entirely absent.

Scholars have drawn other links between family systems and family pathologies. Margery Wolf (1972) describes how rules governing co-residence, property transition, and authority in traditional Chinese families make conflicts between mothers and daughters-in-law virtually inevitable. Dyson and Murphy (1983) describe how differences in the family systems of northern and southern India affect the vulnerability of women. Northern women move typically marry strangers from different villages, while southern women often marry cousins who they have known since childhood. Northern women typically have no one to turn to if their husbands abuse them; southern women never cut the links binding them to the larger family.

3.6 The changing family

One of the central truisms of contemporary anthropology is that family systems change over time. These changes have been the focus of a great deal of interdisciplinary research. The typical conclusion from such studies is that significant features of the family change, but that underlying principles remain fairly intact. An example is the study organised by Thornton and Lin (1994) of changes in the Chinese family in Taiwan over the 20th century that drew on a large body of ethnographic research and a long time series of data. It turned out that many things had changed: people married later, parents no longer arranged marriages, and less economic production took place within the family. Much else, however, had remained the same: couples continued to reside with husbands' rather than wives' parents, sons provided support to their aged parents, and people placed a high value on continuation of the descent line. The authors suggest that the reason other dimensions of the family had changed was that they were "less central to the historical Chinese value of filial piety" (Thornton and Lin 1994: 403).

Recognition that families around the world are changing raises the question of whether family systems are converging. Mid-twentieth century modernisation theorists argued that they were: that industrialisation had brought about a shift from extended to nuclear families in the West and would do so elsewhere in the world. This argument lost much of its force when historians demonstrated that in much of Northwest Europe, nuclear families had predominated even before industrialisation (see Section 2.1.) Most scholars now acknowledge that family systems around the world have undergone similar changes. These changes include an increase in socialisation by non-family institutions such as schools and factories, which have exposed children to new ideas, given them competing loyalties, and helped them to escape supervision by kin. As children have acquired skills lacked by their parents, and as opportunities for work outside the household economy have appeared, there has been a shift favouring the young in the generational balance of power. But they also argue that many distinctive institutions such as filial piety in Chinese families and arranged marriages in Indian families have survived these homogenizing pressures (McDonald 1992, Thornton and Fricke 1987).

3.7 Critiques

Critics have argued that the emphasis on cross-cultural differences ignores far greater similarities. They also point out that anthropologists, like other social scientists, have dismissed biological influences on behaviour too readily (Brown 1991, Pinker 1998). Brown (1991) has assembled a long list of non-trivial traits, such as age statuses, classification of behavioural propensities, mourning, and a tradition of men marrying younger women, which no society has ever been found to lack.

Despite the existence of many human universals, there is room for dispute over what is truly universal. It can be argued, for instance, that many features of the family that scholars in any particular culture tend to treat as universal are in fact culturally specific. One example is the centrality of marriage. Many Western sociological and economic theorists assume that, aside from the relationship between mothers and children, the central relationship within any family is the one between husbands and wives. But the emphasis on the relationship between spouses may only be a reflection of long-standing Northwest European preference for nuclear families (see Section 2.1). In many strongly male-centred kinship systems such as those in East or South Asia, a man is expected to give greater priority to the needs of his brothers than his wife, and to avoid developing feelings for his wife which might undermine his loyalty to his brothers (Wolf and Huang 1980). Even in the less male-centered system of contemporary Maori, many people have difficulty deciding whether to give greater priority to their spouse or to their blood relatives Metge (1995: 109).

Anthropological theorists sometimes appear to view people as responding passively to social and cultural forces. For instance Geertz (1973) and Sahlins (1974) were outspoken critics of the application of conventional rational actor models to non-Western societies. This apparent rejection of rational actor theory does not, however, mean that anthropologists treat people as cultural automatons. Anthropologists describe how people use practices such as gift giving or marriage strategically to pursue various ends. They also emphasise that people deliberately manipulate norms and traditions to serve their own purposes. Anthropological accounts recognise "agency", or freedom of choice, as well as "structure," or the constraints imposed by custom, politics, and material conditions. Even the rejection of rational actor theory often boils down to an uncontroversial assertion that people in different cultures have different preferences (Little 1991).

3.8 The family, policy and the state

The relationship between states and their citizens is a central preoccupation of contemporary anthropology. As noted in Section 3.2.6, anthropologists have studied the effect on families of public institutions such as schools. They have also studied attempts at deliberate social engineering, whether drastic (eg, such as China's birth control campaigns) or more subtle (eg, Singapore's use of education campaigns, legislation, and tax concessions to bolster the "traditional Asian family"). Most scholars agree that China's birth control campaigns were crucial to the country's rapid fertility decline, even if economic and social development eventually made the campaign's task less difficult (Wolf 1986). Evidence on the efficacy of Singapore's programmes is mixed (Graham, Teo, Yeoh and Levy 2002).

When studying government programs, anthropologists usually look for examples of "agency", whereby local officials or ordinary people resist or reinterpret commands from above, so that the actual effects of the programme differ from the intended effects. In response to pressure from their fellow villagers, for instance, low-level birth control cadres in China failed to implement rules on minimum marriage ages, and dealt leniently with couples who already had a daughter but wished to have a son (Greenhalgh 1993). In Singapore, women appear to have been selective about which aspects of the "traditional" family they consider to be appropriate in the modern world (Graham *et al* 2002). In New Zealand, Maori initially ignored the 1955 Adoption Act, and carried on adopting children in the traditional way (Metge 1995: Part IV). Familiarity with these sorts of examples of unintended consequences and unimplemented programmes are a valuable counter to naïve beliefs that policymakers can reshape families at their discretion.

4 Sociology

Sociology involves the study of social life, social change, and the social causes and consequences of human behaviour The scope of sociology is extremely broad, ranging from the analysis of interactions between individuals to the investigation of global social processes (Giddens 1997). Dependent on the "sociological imagination" (Mills 1976), sociology examines how private experiences and personal difficulties are entwined with the structural arrangements of society. As such, sociology provides a complement to the more individually focused discipline of psychology.

Sociology is a social science, where divisions between the disciplines are not clear cut, and they share common interests, concepts and methods (Giddens, 1997). Sociology is perhaps closest to anthropology. However, because it evolved from the industrial revolutions in Europe and America, sociology is often identified more closely with relatively modern, urbanised societies, and focuses on the problems of complex social arrangements.

The sociology of the family encompasses a wide range of issues, including teenage childbearing, juvenile delinquency, substance abuse, the experiences of mothering, domestic violence, child and elder abuse, and divorce. It also is closely linked to a number of other fully-fledged fields in sociology, such the sociology of childhood, sociology of gender, social gerontology, death and dying, the sociology of sexuality and the sociology of emotions.

This section of the paper is limited to covering the main theoretical traditions of "modern sociology", while highlighting a selection of key areas in which there is particular interest in the family. A discussion of the post-modern critiques of sociology is included at the end of this section.

4.1 Explanatory framework

The sociology of the family has three main theoretical traditions. These are structuralfunctionalism, symbolic interactionism and conflict theories that include feminism. Some of these traditions are overlapping and to separate them is somewhat of an artifice, but for the sake of clarity, this section of the paper describes them as if they were stand-alone bodies of theory and research.

4.1.1 Structural functionalism

Functionalist theories in sociology explain social institutions like the family primarily in terms of the functions they perform (Jary and Jary 1991). Functionalism begins with the observation that behaviour in society is structured, and that relationships between individuals are organised in terms of rules and are therefore patterned and recurrent. Functionalists then examine the relationship between the different parts of the structure and their relationship to society as a whole. At its simplest, functionalism focuses on effects such as the effect of the family on other parts of the social structure and on society as a whole. Generally, however, a functionalist analysis includes an examination of the contribution an institution makes to the maintenance and survival of the social system. For example, in simplistic terms, a major function of the family is the socialisation of new members of society.

The structural-functionalist perspective of the family, closely associated with Parsons, focuses on the family and its relationship to society (McLennan, Ryan and Spoonley 2000). Parsons (1951) argued that the family fulfils a number of functions within society, but identified two of these as key. The first was the socialisation of children into the appropriate values and norms of society. Focusing on North American culture in particular, Parsons theorised that the role of the family was to ensure that independence and a motivation to achieve was instilled in children's personalities. The second function of the family was the stabilisation of the adult personality through marriage, which served as the antidote to the emotional stresses and strains of everyday life.

Parson's theory included the differentiation of gender roles within the family, with each partner filling one of two somewhat opposing but complementary functions. Men were characterised as fulfilling an instrumental role, with women's more expressive nature providing the complement. Parsons argued that the expressive role was assigned to women as a result of the primarily expressive bond between mother and children.

While structural functionalism was the dominant theoretical perspective, particularly in North America, during the 1950s and 1960s, functionalist theories of the family have since been highly critiqued, not least because they provide little consideration of alternative family forms or family pathologies, other than to argue that such variations are either inherently "dysfunctional" or fulfil some latent function in broader society. Furthermore, functionalist theories tend to justify the sexual division of labour, and ignore gender inequalities inherent in Parson's "complementary roles" structure.

4.1.2 Symbolic interactionism

Symbolic interactionism, associated with the theories of Mead, Goffman and Becker, focuses on the small-scale phenomena that constitute everyday interactions in an attempt to understand how individuals experience and understand their social worlds, and how different people come to share a common definition of reality (Berger and Luckmann 1967).

Symbolic interactionism is based on the premise that it is only through the social behaviour of individuals that society can come into being at all, and as such, society is ultimately created, maintained, and changed by the social interaction of its members. Because human beings communicate with one another by means of symbols, interactions are based on the meanings that individuals impart to these symbols (Blumer 1969). Symbolic interactionism emphasises the ability of individuals to actively or constructively interpret symbols in their actions. In contrast, functionalism suggests that social structures determine actions.

Symbolic interactionist theories of the family examine the family at a more micro level than functionalism, focusing on the ways that families create and re-create themselves at an everyday level. Rather than seeing family roles as pre-existing and given structures that are adopted unproblematically, this school of thought focuses on the meanings and lived experience associated with those roles and how they are constructed through interaction (McLennan *et al* 2000).

What symbolic interactionism lacks in macro theories of the family, it makes up for in detailed understandings of family relations, as there is a substantial body of research focusing on almost every conceivable aspect of family life. The diversity of this research is evident in the array of topics it covers. They range from how children interpret the symbolic value of the contents of their school lunch (Kaplan 1999, 2000), the experiences

of divorced fathers (Arendell 1995), the symbolic mechanism of rituals such as family meals and holidays (DeVault 1991), the experiences of breastfeeding mothers (Blum 1999) (Bentovim 2002), to the meanings different family member attach to consumption and money (Pugh 2002, Zelizer 1997). Work in this area includes research on the ways couples negotiate the division of visible and invisible labour within the family (Hochschild and Machung 1989), studies of the ways men and women experience parenthood (Arendell 2000, Garey 1999) explorations into the ways children experience childhood, including school, childcare and the more general pace of life (Corsaro 1997, James and Prout 1997, Thorne 1997) and cross-cultural and cross-class comparisons of family experiences (Glenn, Change and Forcey 1994, North 2000).

4.1.3 Conflict theories

Conflict theories encompass the work of Marx and Engels as well as Weber, Habermas, Foucault, and Domhoff. Conflict theories focus on social conflict and inequality, and as such, can be thought to include feminism. Feminism focuses on gender inequality as one form of social inequality.

Generally speaking, the Marxist perspective argues that the structure of society and the nature of social relationships are the result of past and ongoing conflicts between those who own or owned the means of producing wealth and those who did not. Marxist theories of the family focus on how the capitalist system, which maintains an exploitative relationship between capitalists and workers, shapes other social institutions such as the family, which in turn help consolidate the capitalist system. As such, Marxist theories of the family centre on the association between property relations and family structures, with the family being seen first and foremost as an institution that reproduces class. The family is also seen as the safety valve in which men exercise their frustration at their position in society in a manner that does not challenge the overall system of capitalism.

Engels (1884) theorised that the nuclear family was the result of the rise of private property, which brought with it the problem of inheritance. Males, who wished to pass their wealth to their legitimate heirs, owned property. Engels argued that monogamous marriage, enforced by the state to varying degrees, was a means of controlling women and ensuring the paternity of their children.

Foucault's contribution to sociology included theories of history, science and power, and much of his work is relevant to themes within the sociology of the family. Foucault argued that all social relations are produced by "power," with groups or classes in power creating themselves by constituting other groups as "Other." Sexuality was a "primary technology of power," with Foucault arguing that sex played the role for the bourgeoisie that blood played for the aristocracy; that is, as a means of defining the body. The bourgeoisie defined the body as an object to be known, controlled, and in general made use of in order to maximise life. The family, to Foucault, served to locate sexuality, to confine it and to intensify it. For example Foucault (1990) cites the prohibition of incest and the role of the family in the production of the psyche as key examples of the ways that the family acts as a key site for "power/knowledge".

Thorne (1992) argues that feminism has contributed to sociological theories of the family in five broad themes. First, feminists have challenged the ideology of "the monolithic family," which has elevated the nuclear family with a breadwinner husband and a full-time wife and mother as the only legitimate form (Thorne 1992). In addition, rather than starting with "the family" as a unit of analysis, feminists have focused upon underlying and encompassing structures of gender, generation, sexuality, race and class. Thirdly, feminists have recognised that structures of gender, generation, race and class result in widely different experiences of family life, which are obscured by the glorification of the nuclear family, motherhood, and the family as a loving refuge. Feminists have voiced experiences that this ideology denies.

Fourthly, feminism has challenged traditional dichotomies between private and public, raising questions about family boundaries and showing that family isolation is in part illusory, given the close connections between the internal life of families, and the organisation of paid work, state-organised welfare and legal systems, schools, childcare and other institutions. Finally, the public/private dichotomy is linked to ambivalence embedded in feminism since the 19th century and strongly evident today. The ambivalence moves between values of individualism and equality—values that women have historically been denied and are now claiming—and values of nurturance and community, which are symbolically associated with women. Feminists have affirmed these latter values as a basis for broader social change, and within that, the tension between individualism and community is seen as basic to the politics of family change.

Marxist feminists have made a strong contribution to theories of the family. While Marxist theories have focused on the forces and relations of production, Marxist feminist theories of the family centre on the forces and relations of reproduction. Like Marxist theory generally, Marxist feminism focuses on relations of exploitation, examining how the nuclear family leads to the exploitation of women under capitalism, which in turn helps consolidate the capitalist system. Marxist feminists see the situation of women as grounded primarily in class oppression with gender oppression taking a secondary role (within this tradition, socialist feminists see class and gender oppression as equally important) (Barrett 1988, Hartmann 1981, Jagger and SRothenberg 1993, Oakley 1974).

Marxist feminism argues that women are the exploited and unpaid producers of workers, and it is their labour (such as feeding and clothing the worker and providing emotional support and nurturing) that ensures that the worker's potential can be fully utilised. As such, it is women's work that reproduces labour on a daily basis. Furthermore, women produce the workers of the future (children), and not only maintain their physical well-being, but also socialise them to participate in a capitalist culture. Finally, Marxist feminists note that women's work at home has helped to reproduce labour at little or no cost to capitalism.

While Marxist feminists see social relations and ideologies in capitalist societies as the source of female subordination, radical feminists place the blame squarely on family life based on heterosexual partnerships. For many radical feminists, the nuclear family is "the repository of patriarchy in modern societies" (Bilton, Bonnett, Jones, Lawson, Skinner, Stanworth and Webster 1996: 512) and heterosexual relationships are essentially power relations.

Rich (1980) argues that a culture of "compulsory heterosexuality" underpins nuclear families. She questions the taken-for-granted nature of discourses that naturalise heterosexuality and argues that there is no reason that penetrative sex, which she contends involves the male exploiting the body of women, should be deemed "natural" while other forms of sexuality are not. Similarly, radical feminists talk of the "colonisation" and "occupation" of women's bodies by men for their pleasure, with this appropriation symbolising the "subjugation of the women's life, mind and identity" (Bilton *et al* 1996: 513). For radical feminists, the nuclear family is the major site in which this exploitation takes place.

4.2 Family formation

In examining family formation throughout history, and explaining recent trends in family formation, sociologists highlight the importance of romantic love (Giddens 1997, Swidler 2001). As discussed in Section 2.1.3 Stone (1977) argues that family formation has changed from a partnership resulting from the interests of parents, kin or community, to a definition of family as a group tied by emotional bonds.

Boswell (1994: xxi) writes:

In pre-modern Europe marriage usually began as a property arrangement, was in its middle mostly about raising children, and ended with love. Few couples married 'for love', but many grew to love each other in time as they jointly managed their household, reared their offspring, and shared life's experiences. Nearly all surviving epitaphs to spouses evince profound affection. By contrast, in most of the modern West, marriage begins in love, in its middle is still mostly about raising children (if there are children), and ended—often—about property, by which point love is absent or a distant memory.

Earlier versions of the nuclear family were deeply embedded within the community, and emotional attachment was not associated with family life, with moralists and theologians regarding erotic or romantic love regarded as a sickness. This is a stark contrast to current theories of family formation that describe the role of affective individualism, and the importance of love and personal fulfilment as the foundations of modern marriage (Giddens 1991, 1992, Gillis 1985). Marriages are based on individual selection, guided by sexual attraction or romantic love, and "companionate marriage" becomes prevalent with both men and women both reaching for higher levels of sexual and emotional compatibility within intimate relationships.

4.3 Family structure

While sociology does not offer any predictive theory about the forms the family will take, it does highlight the role of social norms in determining categories of people suitable for forming families with. However, norms of family structure have changed over time, with a number of authors arguing that economics and anthropology no longer adequately explain the variety of family forms. These changes in the structure of the family are sometimes defined in terms of the emergence of the "post-modern" family. For example, Weston (1991: 3) argues that "Familial ties between persons of the same sex that may be erotic but are not grounded in biology or procreation do not fit any tidy division of kinship into relations of blood and marriage".

Sociologists have focused on the increasing variation in family types, arguing that the male-breadwinner family no longer provides the central experience for the vast majority of children. However, the nuclear family has not been replaced by any new modal category but rather, people move in and out of a variety of family types over the course of their lives (Coontz 1992). Sociologists have studied various types of families in detail, including families headed by a divorced parent, non-married couples raising children, two-earner families, same-sex couples, families with no spouse in the labour force, blended families and empty-nest families (see for example Hochschild and Machung 1989, Stacey 1991, Stack 1974, Wallerstein and Blakeslee 1989, Weston 1991).

Coontz (1992) argues that central to the variation in family structures is the decline of the centrality of marriage and childrearing. She contends that these core family relationships now define less of a person's social identity, exert less influence on people's life-course decisions, and are less universal, exclusive and predictable than ever before. Other research has identified changing values as contributing to the diversity of family forms, with Wilkinson and Mulgan (1995) arguing that recent generations have significantly greater freedoms—freedom for women to work and control their own reproduction, freedom of mobility for both sexes, and freedom to define one's own style of life (Wilkinson and Mulgan, 1995). Wilkinson and Mulgan present the negative side of affective individualism, highlighting that while such freedoms can lead to greater openness, generosity and tolerance, they can also produce a narrow, selfish individualism, and a lack of trust in others.

4.4 Family behaviour

Gender discrimination is a key theme in feminist sociology, explaining the behaviours of men and women within families, as well as behaviour in society more generally. For sociologists, and feminist sociologists in particular, "gender" refers to socially constructed behaviours that are learnt, while "sex" refers to the biological person and their physical characteristics. As such, gender discrimination is a cultural phenomenon based on acquired behaviors, rather than the result of innate differences between men and women. The distinction between sex and gender has relevance for many aspects of family behaviour, not least because, simply put, it attributes differences in behaviour and choices of men and women as influenced by cultural forces rather than innate drives or differences.⁵

Chodorow (1978, 1989) argues that because women, rather than men, tend to care for children, existing gender roles are repoduced. She argues that children become emotionally attached to their mother as she is the dominant influence in early life, but that this attachment has to be broken at some point to allow the child to develop a separate sense of self. How this breaking process occurs is different for boys and girls. Girls remain closer to the mother, imitating what she does, and as such, because there is no sharp break, girls develop a sense of self that is more continuous with other people. Chodorow contends that this produces characteristics of sensitivity and emotional compassion in women. Boys, however, gain a sense of self through a more radical rejection of the mother, and forge their understanding of masculinity from defining what is "not feminine". Boys learn not to be "sissies" or "mummy's boys" and, as a result, are relatively unskilled in relating closely to others, repressing the ability to understand their own feelings and emphasizing achievement over feeling.

Giddens (1997) notes that Chodorow reverses Freud's emphasis to define masculinity, rather than femininity, as a loss—a loss of the close attachment with the mother. Male identity is formed through separation; thus, men later in life unconsciously feel that their identity is threatened if they become involved in close emotional relationships with others. By contrast, women feel that the absence of such a relationship threatens their identity. Chodorow argues that these patterns are passed between generations because of the primary role women play in the early care and socialisation of children.

⁵ Note, however, that the process of acquiring gender – and the theories around it – are far more complex than presented here.

4.5 Family dissolution and reformation

Divorce rates in New Zealand and in other Western countries have increased in the past 40 years, as discussed in Section 2, but disciplines differ as to their explanations of this phenomenon. Sociologists agree with economic arguments for the growth in divorce, noting that marriage no longer has much connection with the desire to perpetuate property and status between generations, and that marriage is less of an economic necessity as women become more economically independent.

Sociology includes a consideration of the meaning of marriage and the stigma associated with divorce that originates in part from the moral blame that was necessarily attributed to one party in order to obtain a divorce. Giddens (1997) notes that the rising rates of divorce are due in part to the drop in this stigma resulted, in part, from changing social norms and the rise of no-fault divorce laws. However, he argues more strongly that, in line with the rise in affective individualism, the growing tendency to evaluate marriage in terms of the levels of personal satisfaction it offers is key. Rising rates of divorce reflect escalating attention to personal fulfillment and an increased determination to engage in rewarding and satisfying relationships.

Rubin (1995) identified class differences in the reactions to rising divorce rates, with working-class households holding more traditional views. However, researchers in the US, Britain and other European countries have agreed that the changing values, particularly of women, towards "a desire for autonomy and self-fulfillment" cut across class (Giddens 1997, Rubin 1995, Wilkinson and Mulgan 1995).

There is a considerable body of sociological research on the effects of divorce on families, particularly on women and children. Wallerstein and Blakeslee (1989) argue that the impact of divorce on children lasts significantly beyond the immediate period of parental separation, and affects the intimate relationships of the children as adults. While Wallerstein contends that nearly half of her sample group entered adulthood as "worried, underachieving, self-deprecating, and sometimes angry young men and women," she identifies a number of factors that reduce this legacy, among them the importance of a continued relationship with the non-custodial parent (usually the father).

Weitzman (1985) studied the impact of the no-fault divorce law, examining its unintended contribution to the poverty rates among female-headed households and argued that while the no-fault divorce law aimed to abolish sexist, gender-based rules that failed to treat wives as equals in the marital partnership, laws that required the equal division of property failed to consider the fact that most women had, and continued to have, responsibility for the care of children. As a result, dividing property equally between husbands and wives typically meant that half the family assets were awarded to one person, the husband, while the remaining half was awarded to an average of three people, the wife and two children. Similarly, the equal property division failed to examine earning power, which left men with half the family assets and continued occupational success while women, who often had been out of the workforce raising children, struggled to obtain work that would sustain their, and their children's, former living standards. Weitzman's work highlighted the importance of including occupational investments in assets split through divorce, and illustrated how a law, which was implemented on the grounds of equality, acted to discriminate against women.

Sociologists have examined the reformation of families after divorce, focusing not only on the risk of reformed family failure, but also on the benefits of "composite" families. Some studies note that new family forms can actually increase broader social solidarities, and that divorce, instead of producing more singles, can yield ever-larger family unities. He argues that because of the rise of no-fault divorce—where one is to remain friends with the ex-, or at least be cordial—and with the growth of joint custody of children, relations are extended beyond both nuclear and blended families. Increasing divorce thus leads to ever-wider webs of familial relations.

4.6 Family pathology

4.6.1 Violence within the family

Many sociologists argue that the classic nuclear family has a dark side, which includes violence, sexual abuse and mental illness. Laing and Esterson (1982) argue that the nuclear family structure exacerbates mental illness. Barrett and McIntosh (1982) claim that the family is what they call "anti-social", and that because we have been socialised to invest so much in it, family ties prevent us from extending caring relations to those outside our immediate family circle.

Giddens (1997) contends that family violence occurs most often towards children, followed by spousal abuse of women. Questioning the prevalence of family violence, he argues that the family fosters both emotional intensity and personal intimacy and that these elements can be a dangerous combination. Citing a history of social approval of violence between spouses, Giddens notes that while some violence is tolerated within many families (such as smacking children), strong emotions combined by intimate knowledge can spill over into assault. Giddens cites the provocative example of smacking children, arguing that while a parent smacking a child is socially legitimate, a stranger hitting a child in exactly the same manner would be classed as assault.

Radical feminist theories cite power as a key factor in family violence. Focusing on intrafamilial relationships between men and women, one stream of radical feminism centres on sexuality and violence in male-female relationships as both driving and mirroring patriarchy (Rich 1980). It argues that symbolic violence perpetrated against women by men in general sexual relations leads directly to the actual physical and mental violence used by men against their wives within the nuclear family (Bilton *et al* 1996).

Other streams of feminism argue that men tend to associate emotional feeling with sexuality, and sexuality with power and partner submissiveness. More generally, feminist analyses seek to "expose the ways in which the widespread romanticised ideal of the family and family values is systemically skewed to empower men and disempower women and children; and the ways that this ideal informs the way that welfare and legal institutions respond to sexual violence to the detriment of women and children..." (Jagger and Wright 1999: 9).

4.6.2 Incest and child sexual abuse

Sociology interprets behaviours and attitudes as due to socialisation in human groups, and the incest taboo is no exception to this basic principle. However, while sociologists note the function of the incest taboo in preventing familial role conflict and forcing people to create relationships outside the family (thus uniting people in larger networks and leading to greater social cohesion), the functional analysis does not explain the origins of the taboo.

Despite lacking an explanation for origins of incest and sexual abuse, sociology does examine why incest and sexual abuse have entered the public realm. Giddens (1992) argues that the increase in child sexual abuse is a result of more direct attention being paid by welfare agencies and the police, and that this increased attention resulted from the erosion of taboos on talking about sexuality more generally. In addition, the feminist movement played an important role in initially drawing public attention to child sexual abuse as one element in wider campaigns against sexual harassment and exploitation. Once researchers began to probe into suspected cases of sexual abuse, many more came to light—leading to "discovery" of sexual abuse internationally.

4.7 The changing family

Sociologists tend to view changes in the modern and post-modern family as driven, in part, by industrialisation and economic change. Historical sociologists trace the origins of the "modern family" to the growth of specialised wage labour, which led to economically productive work moving beyond the reach of the family and the redefinition of kinship obligations. While the family that was engaged in farming or crafts could be expanded because extra hands could produce extra food and other products, the resources of the salaried family and the number of people who could be supported by its wage earners were fixed. Living space in the neighbourhood of factories and other specialised worksites was expensive and non-expansible. Where neighbours were strangers, the modern family became a "haven in a heartless world" (Lasch 1977).

Discussion of the changing family centres on structural changes and the loss of its functions. The structure of the modern family—the relationship of parents, children and kin—has diversified. The modern family has lost many of the functions it fulfilled in a preindustrial age—such as school, church and work. Yet it has retained its core functions of reproduction, providing shelter, socialising children, stabilising personalities, providing affection and a sense of belonging, care of children and the old. A key concern for sociologists is whether different types of family structure lead to socialisation failures and problematic life-courses for children (Ambert 2001).

4.8 Critiques

Major critiques of the main traditions in sociological theory have come from the postmodern and post-structuralist schools. Post-modernism challenged the supposedly universalistic claims of social theory, stressing instead multiplicity, difference, particularity, locality, temporality, and the "scattered and shifting character of contemporary social processes" (Outhwaite 2002). Similarly, post-colonial theory offers a critique of sociology by asking "Who speaks?" when knowledge is associated with power and claims to be making "truthful" statements about the social world (Holmwood 2002). Post-colonialism also argues that much of the "sociological literature refer(s) to a global project of modernisation and democratisation, providing a skewed understanding of the postcolonial movements that have figured so prominently in recent world history." (Holmwood 2002).

Postmodern theory came relatively later into sociology than in other disciplines, possibly because the theme of the "social construction of reality" was already present in phenomenological sociology and ethnomethodology (Outhwaite 2002). Since the late 1980s, however, it has become a recognisable current of sociological thinking; other theorists argue that post-modernism need not mean the end of explanatory efforts that go

beyond the immediate or specific, and that it remains possible to develop a systematic analysis useful for all levels of abstraction (Glucksmann 2000).

4.9 The family, policy and the state

Writers and theorists within sociology differ on the degree to which the actions of the state are seen as benefiting or detrimental to society and the family. Hayek (1988) argues that while the state has a crucial role in some areas such as the definition and enforcement of law, state intervention in other areas generally does more harm than good (Bartley and Hayek 1988). In contrast, some traditional theorists, such as Durkheim, see the state as more benign and a possible force for social order.

McLennan *et al* (2000) note that modern families have increasingly come under the purview of the state. The development of the welfare state has seen the state take on responsibilities traditionally left to families, and there is debate within the sociology of the family as to the desirability of this intervention. Feminist sociologists argue that the state has supported a patriarchal nuclear family, with a breadwinner husband and dependent wife and children, and that this support extends beyond welfare to the definition of what constitutes a family and the rights accorded to families. Marxist sociologists contend that the capitalist state has destroyed the privacy of the family through the rise of professional welfare and health experts, while noting the role of families in reproducing class structures.

Regardless of the desirability of the state, many sociologists view policy as an important mechanism for change. Because sociology places emphasis on the socially created nature of society, policy can have a potential role in changing behaviour and thus drive social change. This is the case for family policy as well as policy in other areas. For example, theorists such as Wallerstein and Chodorow might argue that changes to divorce laws or social welfare benefits targeted at parents may lead to larger social changes beyond the boundaries of the policies themselves.

5 Psychology

Psychology differs from sociology primarily in its focus on the individual. Much of an individual's behaviour, however, is the result of interactions with others, particularly the influence of primary caregivers during infancy. Psychology is like sociology in that it is an extremely broad discipline encompassing a variety of fully-fledged fields that cover a vast range of issues. Major fields include developmental psychology, abnormal psychology, clinical psychology and psychoanalysis, educational psychology, industrial psychology, and social psychology. Increasingly, psychology involves qualitative as well as quantitative work, especially in the area of families. Because of the size of the field, this section provides a brief survey of the theories in psychology that have relevance for the family, many of which stem from the social and developmental specialities.

Social psychology studies the effects of social and cognitive processes on the way individuals perceive, influence and relate to others, and as such, it places particular importance on how behaviour is affected by the presence or influence of other people. Its method is scientific, involving hypotheses that can be disproved, and its findings are derived from both basic and applied research, including natural experiments and experiments with treatment and control groups.

Developmental psychology is concerned with the cognitive, emotional and social development of individuals. While it does not offer theories specifically of the family, developmental psychology recognises the importance of the family as the context in which the individual develops. Like social psychology, its methods are scientific, utilising cross-sectional (comparing developmental levels at various ages or backgrounds), cross-cultural and longitudinal (measuring various stages of development) methods. In addition, developmental psychologists often use co-twin methodologies.

5.1 Explanatory frameworks

Psychoanalysis, behaviourism and cognitive psychology are three major frameworks within psychology. Psychoanalysis (associated with theorists such as Freud and Erikson) assumes that people have unconscious thoughts and motives as well as conscious ones, and that the unconscious mind retains memories of painful thoughts and experiences that the conscious mind ignores. Psychoanalysis argues that differences between individuals are in part the result of the role the unconscious mind plays in personality development.

In contrast, behaviourism (closely associated with Skinner, Thorndike and Watson) is based on the principle that the inner workings of the mind, being unobservable, do not form legitimate objects of study. Rather, these theories concentrate on behaviour as learned, and how positive, negative or neutral outcomes in the past effect people's later behaviours.

Theories of cognitive psychology had their roots in Chomsky's famous critique (1959) of Skinner's book *Verbal Behavior* (1957) which highlighted the shortcomings of strict behaviourism and reintroduced the role of mental structures and processes as explanatory concepts in psychology. Cognitivism explains individual differences partly in terms of knowledge. Individual differences are attributed to differences in the way people think, and the ways they remember and use knowledge.

5.2 Family formation

A number of theories in psychology shed light on the nature and drivers of family formation, amongst them object relations theory, attachment theory, and theories of personality.

"Object relations" refers to the emotional bonds between the self and another person or object. It was first developed by Freud, who defined "objects" as anything an infant directs drives towards in seeking satiation (Freud 1914). Subsequently, object relations theories grew out of the writings of major psychological theorists such as Klein, Fairbairn, Winnicott Kernberg and Kohut (see, for example Fairbairn 1953, Kernberg 1976, Klein 1952, Kohut 1985, Winnicott 1971).

Object relations theories argue that family formation is the result of innate drives to form and maintain relationships. However, these fundamental drives are strongly mediated by the way individuals interpret their earliest primary relationships, particularly the motherinfant dyad. It is the interpretation of the relationship between the infant self and primary figures (particularly the mother) that lays the foundation for the development of individual identity and personality, and becomes the basis for later relationships with others in marriage and raising a family. Object relations theories argue that our basic tendency is to seek out others—such as spouses—who will reaffirm our earliest self-object relationships. Attachment theory also offers insights into the formation and maintenance of family relationships. Like object relations theories, attachment theory argues that the bonds between a child and its care-giver, usually the mother, affects the child's personality development and subsequent interpersonal relationships (Ainsworth, Blehar, Waters and Wall 1978). Bowlby and Ainsworth (1991) outlined three kinds of attachments that infants had to their mothers: secure attachment, where children had a loving childhood, with mothers who were sensitive and responsive to their needs; avoidant attachment, characterising children who were constantly denied physical contact by their mothers; and anxious/ambivalent attachment, resulting from mothers who were slow and inconsistent in responding to their infant's cries.

Attachment theories argue that the formation and strengthening of relationships in adulthood parallel attachments styles of infancy, and that there are different kinds of love experiences for people with different strengths of relationship. Adults with secure relationships are confident in both themselves and their relationships, while those with avoidant behaviours tend to be detached from both their own feelings and their relationships. Anxious or ambivalent adults are likely to be apprehensive and distressed both in themselves and in relationships (Morgan and Shaver 1999).

Family formation, age at first marriage, and the structure and quality of romantic and family relationships are influenced by the working models (or mental models) of self and others that were developed during infancy and childhood, and attachments styles in adult relationships parallel those in infancy. Adults with secure attachments find it relatively easy to get close to others, are comfortable depending on others and having others depend on them, and tend to form relationships based on trust, friendship and positive emotions, relationships which they believe can be long-lasting. By contrast, adults with avoidant attachments question the possibility or durability of romantic love. They may have relationships based on fears of closeness, finding it difficult to trust others completely or to allow themselves to depend on others. Finally, adults with anxious/ ambivalent attachments may struggle to find what they consider to be true love. They find that others are reluctant to get as close as they would like, and may worry that their partner does not love them or will not want to stay with them (Hazan and Shaver 1987).

Theories of personality within psychology also offer insights into family formation, arguing that personality characteristics play a central role in the selection of marriage partners (Botwin, Buss and Shackelford 1997). Theories of assortative mating contend that people tend to seek mates who are similar to themselves (Blackwell and Lichter 2000). Also, most individuals tend to want certain personality characteristics such as emotional stability, agreeableness, dependability and openness in a mate (Larsen and Buss 2002).

5.3 Family structure

Many forms of family structure exist in modern Western societies today: the traditional two-parent heterosexual family, sole parent, step- and blended, foster and gay families. However, family functioning appears to be far more important than family structure to the well-being of family members and to children's development. A universal issue in all families is the presence or absence of secure attachments within the family.

The impact of different family structures has been addressed in a large number of studies (see for example Jacobsen, Mays, Crawford, Annesley, Christoffel, Johnston and Durbin 2002). In general, being raised in a sole parent or step-family (as compared with being raised in a family with both biological parents) or in an "out of family" placement, is

correlated with poorer outcomes on a wide range of measures (Baker, Pryor and Shirley 2000, Haveman and Wolfe 1993, Rodgers and Pryor 1998).

Research suggests that the relationship between sole parenthood and adverse outcomes is not primarily a direct causal one, but is explained by other factors associated with, but not exclusive to, sole parenthood (Baker *et al* 2000, Landy and Kwan Tam 1998). Particular family structures are not themselves a problem—there are many diverse family structures that can function well for parents and children alike—but the instability of relationships, households and families that accompanies change is a great threat to the well-being of children (Pryor and Rogers 2001).

5.4 Family behaviour

For many individuals, the family is the domain in which they seek to fulfil innate drives and achieve many life goals. Membership of a family is more likely to enhance each individual's emotional, social and physical well-being when there is secure attachment and affection between family members; individuals have some autonomy; roles and responsibilities are clear; there is flexibility in roles and responsibilities; there is absence of chronic unresolved conflict; there is social support from external sources; and levels of stress on the family from external or internal sources are low.

Family systems comprise the ways families organise themselves and how their members interact with one another. Families typically have rules that determine the way they are organised and which help the family define and perform its functions (Minchin 1974). Family systems theory, also known as Bowen theory, provides a framework for examining family situations and behaviours in terms of past relationships and family histories (Bowen 1985). It offers a theory of family behaviour based on the premise that the family can be viewed as a single emotional unit made up of interlocking relationships existing over many generations (Kerr and Bowen 1988).

A key concept in family systems theory is that the family is an emotional system or an emotional unit. The family members are emotionally interdependent and function in reciprocal relationships with one another. Therefore, the functioning of one member cannot be completely understood if taken " ... out of the context of the functioning of the people closely involved with him" (Kerr 1988: 37).

Family systems theory argues that an individual's behaviour throughout the life course is closely related to the functioning in one's original family. One strength of family systems theory is that it conceptualises "family" as encompassing a variety of family forms, including the immediate family with whom the individual lives, the extended family of relatives and friends, and the community at large.

5.4.1 Sex/gender roles

Theories of gender/sex roles in psychology can be grouped into three broad categories: psychoanalytic theories, socialisation/social learning theories and cognitive theories.

Classical psychological theories of gender come from the psychoanalytic tradition, and find their roots in the work of Freud. For Freud, gender identity is the product of a child's resolution of an unconscious emotional conflict (the Oedipal conflict for boys and the Electra complex for girls) and involves the formation of identification with the same-sex

parent. These theories emphasise the internal psychological processes of children rather than any external factors.

In contrast, social learning theory argues that children acquire their gender identity and learn gender roles through reinforcement that begins at birth, and observing and modelling parental behaviour (Bandura, 1977). Gender identity is the result of the interpretation, evaluation, and internalisation of socially transmitted messages about appropriate gendered behaviour.

Another body of theories come from the cognitive tradition. They argue that once a child learns that he/she is a boy/girl, the child sorts information about behaviour by gender and acts accordingly, so that "children are almost inevitably led by their own cognitive processing to choose gender as the organizing principle for social rules that govern their own and their peers' behavior" (Bem 1993: 112). Children acquire gender in three stages. The "gender identity" stage occurs when the child is approximately two years old, and involves consistent labelling by physical characteristics and a categorization of people and behaviours by gender. However, understanding of male and female is limited, to the extent that a boy may believe he could become a girl if he wanted to by playing girls' games or wearing dresses or growing hair long, and vice versa. The second stage, "gender stability", occurs around four years old, and involves a child understanding that gender is constant across time (but not across different situations). This period is characterised by experimentation, as a child sets out to find out what the gender-concept means. The final stage, "gender constancy" occurs around six years of age, and involves an understanding of the constancy of gender across the life course (both time and situation). As such, in this stage, a child learns that gender does not change with age or size, or with different clothes or hairstyles. Gender schema theory accounts for children's socialisation into gender-specific roles by arguing that the process is mediated, like many other psychological processes, by cognitions (Bem 1993). The child organises information about what is appropriate for its sex on the basis of what society dictates, thus processing incoming information according to the definition of "male" and "female" behaviour current and active in that society at that time.

5.4.2 Child-rearing/Parenting

Classical psychoanalytic theories such as those of Freud and Erikson, and theories such as attachment theory and object relations theory highlight the importance of the roles of parents, particularly mothers, on infant development and subsequent adult relationships. However, there is also a significant body of more modern research and theory on child rearing and parenting.

Social psychology examines how becoming a parent and engaging in child rearing affects the identities of both men and women. Much of this work argues that becoming a parent involves identity conflicts, particularly for women who engage in paid work. This research has found that many women experience significant conflict between their paid work and family identities, and that as a result, women often use strategies to try to reduce the oppositional nature of these two roles (Garey 1999).

Cowan and Cowan (2000) argue that, in addition to the physical changes of pregnancy, motherhood may bring a change in identity as a woman moves from seeing herself first and foremost as a worker to seeing herself also as a mother. Although having a first baby involves changes in identity for both parents, this change is particularly pertinent for women. Men add "father" to their identity, but preserve the other central parts of themselves. When women add "mother" to their sense of self, other identities, such as

"worker" and "lover or partner," may become less primary (Cowan and Cowan 2000: 82). As "mother" begins to take up a bigger piece of their identity, there is less room for all other identities, including "worker." Similarly, Bailey (1999) found that for women who constructed employment as an opportunity for expression of the self, pregnancy operated as a potential challenge to their working identity.

Parenting styles appear to influence the development of children's social and instrumental competence, although specific parenting practices are less important in predicting child well-being than is the broad pattern of parenting (Baumrind 1991, Darling 1999, Darling and Steinberg 1993, Weiss and Schwarz 1996).

A typology of parenting styles includes four different categories: authoritative (high control/high warmth); authoritarian (high control/low warmth); permissive (low control/high warmth); and indifferent (low control/low warmth) (Baumrind 1991, Maccoby and Martin 1983). Parenting style has been found to predict child well-being in the domains of social competence, academic performance, psychosocial development, and problem behaviour (Darling 1999). There is general consensus that authoritative parenting is optimal for facilitating positive child development. In contrast, children and adolescents whose parents were indifferent perform most poorly in all domains (Baumrind 1991, Miller, Cowan, Cowan and Hetherington 1993, Weiss and Schwarz 1996). However, there some debate regarding the culture-specific nature of parenting styles (in some cultures an authoritarian parenting practices may vary according to the context in which they occur (eg, greater parental control may be more important in high crime neighbourhoods) and the characteristics and disposition of the individual child.⁶

Another, highly contentious, view is that it is peers, not parents, who are "...responsible for the transmission of culture and for environmental modification of children's personality characteristics." (Harris 1995) Harris contends that parents have no lasting effects on the personality, intelligence or mental health of their children, and that it is children's peers who have the greatest impact on children's personalities. Children adopt certain behaviours in social situations in order to win acceptance from their peers, and that it is these behaviours that remain constant into adulthood. She states "...children learn how to behave outside the home by becoming members of, and identifying with, a social group...It is within these groups...that the psychological characteristics a child is born with become permanently modified by the environment. ...The shared environment that leaves permanent marks on children's personalities is the environment they share with their peers." (Harris 1995: 50).

⁶ Darling (1999) notes "It is important to distinguish between differences in the distribution and the correlates of parenting style in different subpopulations. Although in the United States authoritative parenting is most common among intact, middle-class families of European descent, the relationship between authoritativeness and child outcomes is quite similar across groups. There are some exceptions to this general statement, however: (1) demandingness appears to be less critical to girls' than to boys' well-being (Weiss and Schwarz 1996), and (2) authoritative parenting predicts psychosocial outcomes and problem behaviours for adolescents in all ethnic groups studied (African-, Asian-, European-, and Hispanic Americans), but it is associated with academic performance only among European Americans and, to a lesser extent, Hispanic Americans (Steinberg, Dornbusch and Brown 1992, Steinberg, Darling and Fletcher 1995). Chao (1994) and others (Darling and Steinberg 1993) have argued that observed ethnic differences in the association of parenting style with child outcomes may be due to differences in social context, parenting practices, or the cultural meaning of specific dimensions of parenting style."

5.5 Family dissolution and reformation

5.5.1 Marital dissolution

Psychology contains a significant body of research on marriage and the nature and predictors of marital quality and stability or divorce. A number of theorists argue that marital quality generally declines over time, particularly in its early years (MacDermid, Huston and McHale 1990, Veroff, Douvan and Hatchett 1995). Kurdek (1998) studied 198 first-time married couples and concluded that marital quality declines steadily over the first four years of marriage, and that the nature of change in marital quality and the predictors of that change were very similar for husbands and wives.

Gottman's theories explore the causal processes that destroy marriages and lead to marital separation and divorce. The level of fondness, unity and "cognitive room" couples had for each other seems to be predictive of enduring marriage, with the ability to infuse marital interactions, especially conflict, with positive affect particularly important for ensuring the long-term success of the relationship (Carrere and Gottman 1999).

There appears to be a specific trajectory toward marital dissolution that involves a number of predicatory variables (Gottman 1993b). The trajectory suggests that couples who divorce typically remain unhappily married for some time, seriously consider dissolution, then actually separate and then divorce. The balance between positive and negative interactions over time can predict it. Stable couples had up to five times as many positive interactions as negative ones, while unstable couples tended to have equal numbers of positive and negative interactions.

Gottman developed a structural model of the "cascade" of behaviours and experiences leading to marital breakdown (Gottman 1993b, Gottman and Krokoff 1989). Based on these cascades, Gottman argues that there are three kinds of stable couples and two types of unstable couples. Stable couples include "volatile" couples (who display both positive and negative emotions frequently, but are generally warm and loving), "validating" couples (who value the "we-ness" of marriage, and tend to listen to each other's positions before trying to persuade and negotiate) and "conflict-avoiding" couples (who tend to avoid conflict, and minimise the importance of disagreements, creating a calm and somewhat passive marriage). Unstable marriages were termed "hostile" (characterised by frequent and bitter arguments that involved sarcasm and personal attacks) and "hostile/detached" (where the partners were generally emotionally detached, but experienced periodic interactions of attack and defensiveness) (Gottman 1993a).

5.5.2 The impacts of family conflict and dissolution on children

While some children suffer negative consequences from family conflict and marriage dissolution, most children are fine. The key issue is identifying the risk factors involved. Parental conflict, for example, is a critical risk factor for negative outcomes.

While family dissolution may contribute to children's difficulties, it is not possible to draw a conclusive causal relationship between divorce and the level of child well-being. International reviews and meta-analyses have shown that there are negative consequences for children experiencing parental separation that endure into adulthood (Amato 2000, 2001, Amato and Keith 1991). However, these effects may be due to disruption in children's attachments and living arrangements (such as, for instance, loss of social networks and changes in school), that also affect children in multiple successive

placements in foster care (Nechyba, McEwan and Older-Aguilar 1999). Similarly, as some children from intact families suffer the same difficulties as some children with divorced parents, Amato suggests that it is not divorce in and of itself that produces negative outcomes (Amato and Keith 1991).

Recent large-scale studies of children in the United States and Britain examined the negative effects of parental divorce on children, arguing that children whose parents had divorced displayed more behaviour problems and had lower school achievement than children from intact families. However, the research found that these problems usually appeared before the parents separated; that is, the problems were not due to the trauma of divorce itself but to conditions within troubled families (Smith 2000a). Parental conflict is a major predictor of poor outcomes for children.

Arguing that the children from intact and divorced families were more alike than different, Amato (1994) evaluated the impact of six characteristics commonly thought to cause difficulties for children whose parents were divorcing: parental loss, economic loss, life stress (such as changes in living situations), poor parental adjustment (psychological functioning), lack of parental competence, and exposure to inter-parental conflict. Amato argues that while five of the six factors were associated with children's difficulties, economic loss was less predictive of children's well-being. Furthermore, Amato argues that children from intact families could also be exposed to these factors.

Rodgers and Pryor (1998) find that short-term distress at the time of separation is common, but that this usually fades with time and long-term adverse outcomes typically apply only to a minority of children experiencing the separation of their parents. Parental separation can exacerbate existing risk factors through such effects as household income, parenting behaviour, geographical location and parental psychological distress, and can contribute to adverse outcomes through the relationships between parents and children. On the other hand, in a highly conflicted family, separation may lead to an improvement in children's outcomes (Booth and Amato 2001).

The literature highlights the importance of distinguishing between transitional problems and chronic problems—the former potentially having less impact on children than the latter. On balance, leaving a damaged marriage can potentially lead to better outcomes for children, even though the adjustment is painful, than if children remain in a poorly functioning family situation for a long period. Many families successfully transition from the loss of their original family to a new set of arrangements (Pryor and Rodgers 1998).

5.5.3 The formation of step-families

Entry into blended families leads to a complex set of new relationships, and adjustment difficulties are common. Children in step-families have been found to experience more behavioural problems, higher rates of accidents, more contact with the police, lower self esteem, and early school leaving than children with two biological parents present (Baker *et al* 2000). Children whose biological mother is cohabiting with a non-biological father do worse on average than children in sole parent families in terms of cognitive, behavioural and psychological outcomes (McLanahan 1997, Nechyba *et al* 1999).

A significant factor in positive adjustment following any significant family change (such as divorce or the formation of a step-family) is effective parenting (Nicholson 1998). Parenting roles are central to step-family functioning and the adjustment of individual family members (Hobart 1991, Hoge, Andrews and Robinson 1990). Conflicts between parents over child-rearing and parenting problems more generally occur at a higher rate in

blended families (Hoge *et al* 1990). However, if the biological parent and step-parent adopt a consistent and authoritative style of parenting, and if there are few conflicts with the other biological parent (or other family members) then adjustment difficulties are more likely to be short-lived.

Conflict within blended families is not confined to parenting. Remarried couples report relationship difficulties related to finances more than first-time married couples, and are more likely to say that they would marry a different person if they could re-live their lives However, conflict within blended families differs with the presence of children from previous relationships. The presence of the husband's from a previous relationship seen as "particularly adversive for the spousal relationship" (Hobart 1991: 83).

Girls tend to have more difficulty getting along with step-parents than boys, particularly with step-mothers. This is particularly the case when a girl's contact with her father is substantially reduced following his remarriage (particularly if the father does not have custody). In addition, girls are more likely than boys to become entangled in loyalty conflicts between their two mother figures. In general the longer a girl lives in a father-step-mother household, the more positive the interaction with the step-mother becomes (Berk 2001).

However, the formation of a step-family can be positive for children if it brings greater adult attention from the addition of caring and effective step-parents or from the child's social network. How well children adapt is related to the overall quality of family functioning and child-rearing style, factors more critical than the structure of the new family.

5.6 Family pathology

Psychology offers number of theories of psychopathologies, aggression and deviance, with a number of these placing the root cause of violence within family relationships during infancy and childhood.

Social learning theory offers insights into aggression and deviance, not only within the family but also on a societal level. Bandura (1973) argues that aggression is a response learned though behaviour modelling, and theorises that children learn aggressive responses from observing others, either in the family or through the media and their wider environment. However, the aggression reinforced by family members is the most prominent source of behaviour learning. Children use the same aggressive tactics that their parents illustrate when dealing with others, thus the child who witnesses his father repeatedly strike his mother would be more likely to become an abusive parent and husband (Bandura and Ribes-Inesta 1976).

Object-relations theory and family systems theory argue that aggression stems from the family. Object-relations theorists view psychopathologies as expressions of traumatic self-object internalisations during childhood. Psychological dysfunction is seen as a manifestation of an attempt to resolve early traumas internalised during infancy. As such, psychotherapy is the only way to address the resulting problems. In contrast, family systems theory argues that individuals can change their behaviour patterns by becoming aware of the impact current and historical family behaviours have had on the definition of their choices (Bowen 1985).

Cognitive neoassociation theory argues that "negative affect produced by unpleasant experiences automatically stimulates various thought, memories, expressive motor

reactions, and physiological responses associated with both fight and flight tendencies" Anderson and Bushman (2002: 30). Cues that are present during the negative event become associated with the event, and with the cognitive and emotional responses triggered by the event, such that in later situations, these cues are enough to trigger similar responses, even in the absence of the actual event itself (Berkowitz 1989, 1990). Aggressive thoughts, emotions and behavioural tendencies are linked together in people's memories, and concepts with similar meanings (eg, hurt, harm) or that are frequently activated simultaneously (eg, shoot, gun) develop strong associations with each other. Similarly, Crick and Dodge (1996) argue that children who experience harsh physical or psychosocial treatment become hyper-vigilant to hostile cues and are biased to perceiving hostile intent in others actions. Abuse during childhood increases the sensitivity of cue interpretation such that individuals may interpret a non-threatening cue as hostile.

5.6.1 Child abuse and domestic violence

The maltreatment of children in the form of sexual or physical abuse and neglect can have short and long-term consequences for well-being. Children who suffer maltreatment during infancy and early childhood can develop emotional, behavioural and cognitive problems, with evidence suggesting that children from difficult or severely dysfunctional families disproportionately suffer severe substance abuse, high levels of depression and anxiety and suicide and run away from home (CSR Incorporated 1997, Hider 1998).

New Zealand research, replicated in many international studies, suggests that children who experienced severe or harsh parental punishment practices had one-and-a-half to four times higher rates of conduct problems, substance abuse, depression, anxiety and violent crime in early adulthood, than those whose parents did not use physical punishment (Fergusson 1998, Jenkins and Keating 1998, Kelley, Thornberry and Smith 1997). The higher rates of problems among abused children appear to reflect the consequences of generally compromised childhoods rather than the specific effects of the abusive treatment (Fergusson 1998).

Children who have been sexually abused exhibit a variety of problems both in the short term and later on as adults (Briere and Elliott 1994, Oddone, Genuis and Violato n.d.). The CHDS findings on sexual abuse suggest that, independently of the socio-economic context, exposure to child sexual abuse is causally linked to later mental health and adjustment problems in some children (Fergusson 1998). This conclusion accords with recent research in basic brain science that brains are sculpted by experiences (Teicher 2002).

The theory of cognitive dissonance provides an explanation of how such abuse contributes to emotional instability (Festinger, 1957). Cognitive dissonance refers to the emotional and intellectual tension that people experience when faced with a set of conflicting "messages" from their social environment, such as when they experience behaviours that are at odds with their prior knowledge or beliefs. (So, for example, a child who is abused may experience tension between the messages "my parent cares about me" and "my parent is hurting me".)

Festinger considered the human need to avoid dissonance to be as basic as the need for safety or the need to satisfy hunger. Arguing that the greater the discrepancy between behaviour and belief, the higher the magnitude of dissonance, Festinger believed that the tensions of dissonance acted as a driver to motivate either a change in behaviour or a change in beliefs (Aronson 1969, Festinger 1957). Sometimes adult victims of child abuse will reconcile the conflict by deciding that they deserved the abuse (this is

associated with poor self-esteem). Sometimes they will decide that their parent did not really hurt them (ie, they will minimise the abuse in their mind, and in extreme cases memory of the abuse may be suppressed). Sometimes the rationalisation can be elaborate: they may decide that the parent was driven to abuse them by external circumstances or by another relative.

It is common for adult victims of abuse to have ongoing problems reconciling this conflict, because any particular rationalisation will tend to be unstable. As a result they may experience ongoing emotional and intellectual stress, resulting in emotional instability and impeded ability to function socially.

Although maltreatment is a serious threat to the short and long term well-being and development of children and adolescents, in some cases children do not appear to suffer significant effects (Masten and Coatsworth 1998). Research on resilient children indicates that 3 broad factors can protect children against lasting impacts from childhood psychological stress: the child's personal characteristics, including an easy temperament and a mastery-oriented approach to new situations (ie, a belief that the new situation can be mastered, which fosters competence); a warm, well-organised family life combined with an authoritative parenting style; and an adult outside the immediate family (perhaps a teacher) who offers the child an alternative support system (someone to turn to, say during periods of conflict within the family) and a positive coping model.

The factors that contribute to domestic violence are in some respects very similar to the factors that lead to child maltreatment. The factors that contribute to other forms of psychopathology are often present where there is chronic and/or serious violence in the home.

In extreme forms of partner abuse a constant terrorizing and domination may occur: the *battering syndrome*. This syndrome is well documented and has been found to have three distinct phases: First, a build-up of stress and tension in the relationship; the explosion (ie, the assault) and finally expressions of contrition and asking for forgiveness.

Perpetrators of this type of abuse are almost exclusively male. The typical batterer has a drive to exert control and focuses this drive on his partner. He tries to establish control through isolation, enforced dependence, jealous surveillance, threats, verbal abuse, meticulous enforcement of petty rules, and even physical exhaustion (Urdang 2002).

5.6.2 Loyalty to an abuser

Attachment theory provides a mechanism for understanding the emotional draw of abusive relationships, and a basis for understanding why people continue to live with or deny abusive behaviour from a parent or spouse. Morgan and Shaver (1999) argue that the tendency to desire contact with a violent or frightening attachment figure is a natural outcome of the attachment system that, under normal circumstances, serves a protection function.

However, the attachment system was not "designed" for situations in which the attachment figures themselves are the source of danger. Loyalty to an abuser is the dysfunction of a system operating under unusual circumstances. When attachment figures are repeatedly abusive, the children or romantic partners will experience heightened feelings of attachment and will be confronted with the paradoxical dilemma of longing for the comfort of the attachment figure while also experiencing a desire to flee from him or her... This paradox is perfectly understandable when one considers that

attachment bonds are non-rational, enduring, and largely uncontrollable." (Morgan and Shaver 1999: 120). The links between evolutionary biology, discussed below, and attachment theory become clear.

Victims of abuse may know rationally that their relationships are destructive, but may still continue to love and long for their abuser. Fairbairn (1952) theorised that people experiencing the discrepancy between their loving feelings and their knowledge that the people they love are not deserving may experience "splitting," a dissociative defense whereby tension and confusion are bypassed through the formation of two separate models of the attachment figure, one positive and one negative. Once the models have formed, people will be able to draw on an "all good" model of their attachment figure to justify their current involvement.

Object relations theorists also offer some insight into why battered women stay with their abusers. Celani asserts that battered women stay with their abusers because they are drawn to "bad objects"-partners "who hold out the promise of gratification, yet fail time after time to satisfy the needs of the dependent individual" (Celani 1994: 137) Celani argued that people who were deprived or neglected in childhood may feel drawn into a relationship with a "bad object". Specifically, adults who did not receive adequate positive experiences with their caregivers in childhood may seek to re-create the dynamics of those early experiences by entering relationships with people like their parents.

Other psychological theories offering explanations for victim loyalty include post-traumatic stress disorder and learned helplessness. Women who have been chronically battered develop signs of post-traumatic stress disorder. The disorder commonly involves severe depression and mental and physical exhaustion, and sufferers may experience dissociation, a process or experience in which the "unity of consciousness" is disrupted. People suffering dissociation become alienated from their own emotions, thoughts and behaviours. In some cases, people cease to have emotional reactions to events that would normally trigger such a response, they have memory lapses and cannot account for some of their actions, and they have difficulty "gathering their thoughts" and communicating these to other people. The causes of dissociation are not well understood but it is thought to be partly a defence mechanism.

Seligman's theory of learned helplessness contends that when a person is prevented from avoiding some repeated aversive stimulus, they will become passive and depressed, believing that any actions to avoid this aversive stimulus are ineffective. As such, women experiencing repeated abuse tend to develop a strong sense of powerlessness, believing that their lives are controlled by external influences, and that they have no ability to influence their future life course (Urdang 2002).

5.7 The family, policy and the state

Family functioning appears to have a greater impact than family structure on individual well-being and child development. What really matters for adult well-being and child outcomes is a set of conditions within the family, including the quality of relationships, parenting style and the quality of child care, rather than how the family is configured.

The state's ability to influence the way that families function is constrained: the domain of the family is private, and the state has limited opportunities to observe family functioning. In practice the state tends to only intervene *directly* when problems are serious, evident and probably entrenched—for example, when a child's safety is at risk or there has been a violent incident.

The question of state intervention in this area raises fundamental issues about the rights of individuals versus the rights of the state. The role and capacity of the state to influence behaviour within families, other than in extreme circumstances such as these is not clear.

Security of attachment is of vital importance to a child's successful development. If children are removed from their homes in an effort to protect them, this can cause further harm arising from a lack of continuity or permanency. "Continuity of care" has been postulated as a guiding principle in working with children who need fostering (Urdang 2002).

6 Economics

6.1 Explanatory framework

The economic approach stresses the concept of scarcity and the need to consider the costs and benefits of alternatives, since choices must always be made. Individuals are assumed to have stable goals and preferences and will strive consistently to achieve them, using all the information available, subject to the scarcity of resources.

The economic theory of the family is closely associated with Becker, who extended the applicability of economic theory in his analysis of relations among individuals outside of the market system (Becker 1991). The theory of the family covers decisions not only about the distribution of work and the allocation of time in the family, but also marriage, divorce, fertility and children. These activities are economic in that they confer benefits, but also involve costs and tradeoffs. The interpretation of behaviours such as childbearing, marriage and divorce as active choices by maximising agents rather than passive responses to social or cultural forces epitomises the economic approach (Pollak 2002).

This model provides a general theory for the household's allocation of time (Becker 1965). Becker's theory is that a household can be regarded as a "small factory" which produces basic goods, such as meals, housing and entertainment, using time and goods bought on the market. The prices of goods include the direct costs of purchase in the market and the opportunity cost, wages multiplied by the time spent per unit of the good produced in the household. An increase in the wages of one family member changes the payoff to working at home or in the market. Furthermore, it becomes uneconomical for one member of the family to specialise in household production (for instance, child care) and some of the family's functions are shifted to other institutions such as schools. These factors explain not only the increase in the labour force participation of married women but also decreasing fertility and rising divorce rates (Becker and Tomes 1986).

The economic approach to human fertility emphasises parents' income and the costs of bringing up children. Parents are assumed to have preferences regarding both the number and educational level of their children, where the educational level is affected by the amount of time and other resources that parents invest in their children. As wages rise, parents increase their investment in each child, but decrease the number of children. Becker uses this theory to explain the decline in fertility in industrialised countries.

Decisions to mate, form families and have children occur within a framework of laws and rules that cause behaviour to change in predictable directions. Legal and other policy

instruments that affect incentives can influence behaviour and thus the formation, operation and dissolution of families (Cohen 2002, Dnes and Rowthorn 2002).

6.2 Family formation

People prefer to marry if their benefits of marriage are greater than the benefits remaining single. However, there are costs to marriage—personal freedom is restricted and future options are closed off—that must be considered. Despite this, the vast majority of adults across many societies do marry—marriage therefore must, at least *ex ante*, confer net benefits.

The theory of marriage associated with Becker (Becker 1973, 1974, 1985, 1991) postulates several benefits from marriage. They include specialisation and exchange, the production of household public goods, economies of scale, risk sharing (insurance).

These benefits may also be realised through other relationships such as co-habitation, sharing accommodation or through the market. However, marriage reduces the transaction costs involved in exchange, since spouses care for one another (Pollak 1985). In addition, the contractual nature of marriage provides a greater ability to monitor and enforce agreements than other, less formal arrangements (Lundberg and Pollak 1996). Formal marriage contracts also protect the specific assets of the marriage, notably the investment in children (Cohen 1987, 2002).

The family is like a firm, in which time and market goods are combined to produce services that confer utility to the members of the family (Becker 1991). These outputs include self-esteem, health, leisure, companionship and children.

Family members maximise production by specialising in duties according to their comparative advantage. When one partner has a comparative advantage in market work relative to home production, the couple can produce more total output through specialisation and exchange. Even with two intrinsically identical individuals, there are gains from household division of labour, through increasing returns to investment in specialised human capital. Typically, it is the husband who has the comparative advantage in the labour market. Even small differences in labour productivity (arising for example from gender discrimination, or when mothers have babies) can reinforce these differences. In the same way, human capital investments after marriage and investments in anticipation of household roles can reinforce the initial differences in productivity and gender specific returns.

A second source of benefits from marriage is the production of household public goods. These are goods where one spouse's enjoyment of the good does not decrease the amount available for the other spouse to enjoy. They include goods such as a tidy house or pleasant garden, as well as other items such as children.

Marriage also confers benefits from the economies of scale in household production—the "two can live as cheaply as one" phenomenon. Joint consumption also confers benefits where the consumption by one spouse, of say a meal or television programme, enhances the consumption of the other.

Families also fulfil the function of insurance—risk can be spread across a wider group. In traditional societies food sharing across the kin group afforded some protection against the ever-present chance of any one individual's failure to kill or locate food. In modern societies the state has adopted many of the functions fulfilled by traditional families.

Nevertheless, marriage can still be seen as a pooling of risk in the form of provision of substitute services. If one income earner fails, there is another; if one party becomes ill and cannot undertake domestic work, there is another.

From a law and economics perspective, a fundamental reason to enter into a marriage contract is to allow for optimal investment in assets of peculiar value to the relationship—assets that would be diminished in value if the relationship comes to a premature end. Insuring the investments by contracting is in the interests of both marriage partners (Cohen 1987, 2002).

The most significant marital-specific assets are children. Children are long-term investments: their costs and benefits span a lifetime. Whereas in the past children may have been something of an investment good, (in terms of their contribution to the family labour force) they are now a costly consumption good. Children are particularly valued by their natural parents, and are often seen as a cost to prospective new mates. Although parents still love their children after divorce, the extra value in terms of "being a family unit" is lost.

If both parents value children why is a contract necessary? First, the value of children can vary systematically across individuals, between sexes and over lifetimes. For example, men may find children a burden, or may find them a benefit without requiring their presence, and therefore suffer no loss from not living with them. These differences remove the reliability that self-interest of one's mate will ensure their performance of the contract.

Furthermore, women as a rule face greater difficulties in mitigating damages by finding a replacement spouse than men do. Women generally gain custody of children and this makes searching challenging for two reasons: the presence of children makes it logistically more difficult for women to search and advertise; and children represent a liability to a potential replacement spouse.

Women also tend to be less highly valued on the remarriage market, as time goes by and men and women age. There are a number of observations that support this assertion: divorced men remarry at a faster rate than divorced women for every age but 14-24; divorced women with children remarry at a slower rate than divorced women without children. Further, higher male mortality rates raise the female/male ratio significantly. This ratio, combined with the fact that women tend to marry men who are older, and the gap increases as they age, mean women have significantly greater competition for potential spouses the second time around.

The most important reason for the marriage contract is to protect the asymmetric investments of men and women in the relationship. The contribution of women to marriage-specific assets is generally more substantial, in terms of procreation and child rearing. Women typically invest more in the early stages of a marriage when they are most fertile; men invest more in the later stages when they are likely to be in a stronger financial position. Women are therefore unwilling to undertake the investment of bearing children without some security. The long term imbalance gives rise to opportunities for a man to act strategically—to perform his obligations under the marriage contract only as long as he is receiving a net positive marginal benefit, and then breach the contract once the marginal benefit falls below his opportunity cost.

The function of the marriage contract is to constrain this sort of opportunistic behaviour.⁷ Without such a contract, women would predict the imbalance, marry less frequently and invest less. A contract with penalties for breach makes investment in relationship-specific assets possible by protecting partners" investment, particularly women's because they are more vulnerable to a breach and suffer more from divorce.

Typically then, it is women who are most anxious to obtain the contractual guarantee of marriage: they invest more in marriage specific assets, they have more to lose from divorce as they cannot mitigate damages as easily, and the temporal asymmetry in investment gives rise to opportunities for breach.

6.2.1 Mate selection

The economic theory of marriage suggests that individuals search for mates within a "marriage market" where there is a supply of and demand for, mates. Individuals have different traits and qualities. Each individual has a "value" (conferred for example by qualities such as looks, status, income, wealth, education, age or personalty) that allows them to attract a mate of equivalent "value" (Becker 1973, 1974).

An efficient marriage market is generally characterised by positive assortative mating, where people select mates in a non-random fashion—they marry people similar to and of equivalent "value" to themselves. Traits such as education, IQ, race, religion, income, family background, and height tend to be correlated. The correlation between spouses by intelligence is especially interesting, since it is as high as that between siblings (Alstrom 1961).

There are advantages to positive assortative mating. Two individuals with similar tastes are more likely to benefit from each other's company, with lower transaction costs, fewer conflicts and more positive externalities. Furthermore, it maximises output. A superior woman raises the productivity of a superior man and *vice versa*. Positive qualities of spouses are related multiplicatively, not just additively, so that positive sorting promotes, for instance, children of superior intelligence or beauty (Posner 1998). Also, it reduces the benefits breaking up the marriage. "Well-paired" individuals are those least likely to be made better off by searching for another, higher value mate.

Some traits work best when complements are paired together. In Becker's model, negative assortative mating is most likely to occur around those traits or activities that are easy to substitute between one mate and the other. For example, if one mate likes cooking and the other does not, the traits are complementary.

Negative assortative mating of wage rates can sometimes be important, particularly in terms of maximising the gains from division of labour. By mating a low wage mate with a higher waged mate, the mate with cheaper time can be used more extensively in household production. But in terms of traits other than wage rates positive assortative mating is optimal in maximising aggregate output.

Marriage markets are not perfectly assortative or perfectly efficient. First, the marriage market is a barter market requiring a double coincidence of wants ie, a person needs to find someone he or she wants want who also wants him or her. Secondly, the presence of search costs means that there are trade-offs between the advantages of continued

⁷ Note that, with the advent of no-fault divorce marriage is not the binding contract it was. The contracting approach fits best with an historical model of marriage.

search in terms of the expected benefits from better prospects, and the costs of additional search. This explains why people might end the search and rationally "settle".

Much search behaviour can be understood as a means to improve information about the qualities of marriage candidates prior to marriage. Quality is difficult to assess, and many traits are proxies for others (eg, education for intelligence, family reputation for character). Marriages frequently occur with erroneous assessments, which are revised early in marriage, accounting for the high frequency of divorce early in marriage (Becker 1991).

The search process involves the complex problem of signalling one's availability appropriately. In Western cultures marriage helps individuals to signal to each other and to the outside world their desire for a sexually exclusive, permanent union. Modern trends have reduced the credibility of this signal, representing a major loss of information that makes it much more difficult to sort out the committed from the uncommitted (Rowthorn 2002).

Also complex is the challenge of moving from the status of stranger to acquaintance. Historically the process was often well known and highly ritualised. The flexibility of signalling in the modern world, and the abundance of possible channels for approaching candidates, raises the cost and confusion (and often embarrassment) of finding a mate rather than lowering it. A common strategy, to avoid the embarrassment of obvious refusal, is for initial acquaintance to occur in an environment in which mate search is not the principle purpose. The educational institution and workplace are excellent mating grounds in this regard, and an interesting side effect of the move to tighter sexual harassment regulations may be the further complication of mate search (Cohen 2002).⁸

The "inter-temporal lemons model" as a predictor of age at marriage is an example of rational maximisation in a world of imperfect information (Bergstrom 1997). Because information about how a man will perform economically becomes available at a later stage than information about how a woman will perform in the household, men with bad prospects will marry young before the women have a chance to find out; men with good prospects will wait and attract a better wife (Bergstrom and Bagnoli 1993). More successful males will tend to marry later as their careers develop and earnings peak later.

6.3 Family structure

Most economic analysis is concerned with either single-person households or monogamous couples, with or without children.

Alternative family structures are occasionally discussed in the economic literature. Polygyny (men having multiple wives), although rare in the West, is common around the world⁹. Becker extends an economic perspective to polygynous societies, arguing that its existence can improve the lot of married women (Becker 1991). Just as, in a goods market, excess supply tends to lower price, so too, in a monogamous marriage market, an excess of women over men means division of output within marriage favours men and the gains to women of marriage are lower. Under polygyny, Becker predicts higher incomes for women because of increased demand for wives. Even without a sex ratio imbalance, women might prefer only part of the attention of "successful" men to the full attention of

⁸ While the regulations may deter sexual harassment, they may also deter other behaviours typically involved in searching for a mate. ⁹ In 850 of the 1170 societies recorded in Murdock's *Ethnographic Atlas* (Bergstrom 1997, Hartung 1982). Polyandry (women having multiple husbands) occurs in only a few societies. Note, however, that most *marriages* in polygynous societies are monogamous, as men must be able to afford multiple wives.

"failures". He also notes that low-status men do worse: "less efficient men are often forced to remain bachelors because they cannot offer women as much as other men can" (Becker 1991).

Unwed, non-cohabitating parents are increasingly prevalent in the West, leading some to describe the rising trend in single parent households as "serial polygyny". One explanation for this phenomenon is an imbalance in numbers of "marriageable women" and "marriageable men" (men who are employed and not in prison) (Bergstrom 1997, Willis 1999, Wilson 1987). Because more women want to have children than there are marriageable men, some men will benefit from unofficial polygyny—fathering children by several women and marrying none (Willis 1999). Single women gain by having children rather than remaining childless. Having children outside marriage may therefore be a rational choice among the poor and unskilled where men's wages are not much higher than women's. Historically non-marital childbearing has occurred disproportionately among the poor (Ermisch 2003).

6.4 Family behaviour

Until recently much empirical work on households assumed that the family acted as if it were maximising a "family utility function" (Bergstrom 1997). However, to understand the family more fully it is necessary to get beneath this assumption and distinguish the incomes and consumption of different family members. Families make decisions about inputs (division of labour, energy, time), investment (in human capital and children) and consumption (how outputs and resources are distributed amongst family members) both contemporaneously and intertemporally (forgoing current consumption for retirement saving).

6.4.1 Sex/gender roles

Increasing returns from specialisation are a powerful force creating a division of labour in the allocation of time and investments. However, economics is agnostic *in principle* about comparative advantage: increasing returns alone do not imply the traditional sexual division of labour.

However, Becker's view is that there are intrinsic differences in comparative advantage between men and women, not just in the production of children, but also in contribution to childcare. This determines the direction of subsequent investment and accumulation of human capital. Although there is no necessity that men specialise in market activities and women in household activities, women's initial advantage in childrearing means that a division of labour based on sex is often the result. Small biological differences result in huge differences in activities as investments are channelled differently (Becker 1991).

6.4.2 Fertility

Decisions about fertility are central to family behaviour. They interact with, and shape, division of labour and differences in specific investments between men and women.

Outside the modern welfare state children can be seen as an investment, providing family labour and care for aged parents. During the nineteenth century fertility and wealth became negatively related among Western urban families. There has been a sharp decline in fertility in developed countries since the late 19th century.

This reduction in fertility may reflect the growing importance to the economy of welltrained workers, which persuaded parents to substitute fewer, better educated children for traditional large families (Becker 1991). Parents choose to have fewer, high quality children. "A reduction in the number of children born to a couple can increase the representation of their children in the next generation if this enables the couple to invest sufficiently more in the education, training, and "attractiveness" of each child to increase markedly their probability of survival to reproductive ages and the reproduction of each survivor" (Becker 1991: 137).

The cost of children is also significantly affected by the value of the time of married women: as the wage rate for women has risen, the opportunity cost of raising children has also risen. Becker argues that the "contraceptive revolution" was a smaller factor than is often postulated, and was more a response to a decrease in the demand for children, than a cause.

6.4.3 Allocation of resources within families

Individuals within households are not identical, and their differing preferences mean that bargaining is likely to play an important role in household decision-making about such things as expenditure and the household division of labour.

Becker proposed the first model of household collective choice, arguing for efficient allocation and resource pooling¹⁰. Inspired by game theory, subsequent models have experimented with different assumptions and degrees of complexity, including cooperative bargaining solutions applied to marriages, equilibrium in non-cooperative games and the inclusion of household public goods. For a survey of this literature see Bergstrom (1997) and Zelder (2002).

However, there is evidence to suggest that the distribution of earnings within families determines the distribution of expenditure, directly challenging the resource-pooling hypothesis. Children do better (in terms of mortality and morbidity) when their mothers control a larger fraction of the family resources (Thomas 1990). An increase in a woman's non-earned income increases her fertility whereas an increase in a man's non-earned income does not (Bergstrom 1997). A restructuring of the child benefit payments in the UK from tax rebate (generally received by the father) to direct payment (generally collected by the mother) was correlated with a substantial and statistically significant increase in expenditure on children's and women's items relative to men's (Lundberg 1997, Ward-Batts 2000). Control over household resources affects household expenditure and consumption patterns.

The utility of family members is interdependent—the welfare of one individual affects that of the others. Becker suggests that parents have altruistic, or deferential preferences to account for parental investment in children, However, others argue this is not necessary to explain such behaviour and that paternalism is all that is required (Pollak 2002). Posner (1998) argues that love, or altruism, is an emotion that is an efficient control mechanism in families. It facilitates cooperation and is a cheap substitute for formal contracting and monitoring (although does not solve every instance of conflict and exploitation).

¹⁰ Becker's "Rotten Kid Theorem", which has been hotly contested.

6.5 Family dissolution and reformation

The dissolution of marriage is consistent with the economic model of marriage. Just as people will prefer to marry if their utility from marriage is greater than their utility from remaining single, so a couple will stay married while the gains from marriage outweigh the gains from divorce.

The key source of change in the nature and role of marriage is, arguably, the increase in female labor force participation and human capital accumulation. As women's labour market participation and human capital investment have risen, the gains from specialisation within a marriage have fallen. More similar market incomes between spouses reduce the gains from specialisation and hence from marriage. The higher the woman's income is relative to the man, the greater the probability of divorce (Becker, Landes and Michael 1977). Furthermore, increases in a woman's income increase the opportunity costs of having children and caring for them at home. Therefore, a woman with a higher income is likely to have fewer children. The economic cost of divorce for a woman is lower the fewer the children and the higher her earning capacity.

Divorce behaviour reflects the thesis that a function of marriage is the protection of marriage-specific investments. The presence of children from the current marriage reduces the incidence of divorce for first and subsequent marriages, while the presence of children from former marriages increases it. Becker (Becker *et al* 1977) inferred that genetic children have a utility in their own right, while step-children have negative utility. Furthermore, divorce is less likely as the duration of the marriage increases and investments accumulate. Conversely, a higher expected probability of divorce (Becker 1991).

Divorce behaviour also supports the thesis of assortative mating. Marriages are more likely to dissolve when realised earnings, health and fecundity exceed as well as fall short of expectations. Unexpected events mean that one party would now be able to match with a "better" person. Big differences in trait sorting (for example, intelligence, family background, religion, race) also increase the probability of divorce (Becker *et al* 1977).

6.5.1 Opportunity cost and "better offers"

Both parties suffer costs from divorce. These include loss of the benefits of marriage, direct financial costs, and transaction costs of finding another marriage partner. Until recently there were significant psychological and social costs to breaching the marriage contract due to its religious nature—with a decline in religious consciousness these informal enforcement mechanisms have declined in importance.

As noted earlier in the discussion of contracting to protect marital-specific investment, the costs of divorce are particularly high for women. Women remarry more slowly than men, partly because child custody reduces net resources and makes searching more difficult (Becker 1991). Women's "capital value" on the marriage market depreciates faster over time than men's, since women make their greatest investment earlier than men do (Cohen 1987).

However, the position of women is not as vulnerable as it was. With an increase in the earning power of women the costs to women of divorce have reduced. (Becker 1991) Higher earnings reduce the demand for children by increasing their opportunity cost. This allows for less marital-specific investment and more market participation. With less

specialisation, some of the advantages of sexual division of labour, and hence the gains from marriage, are reduced. Further, as divorce has become more frequent, stigma has also reduced, further reducing the costs of divorce.

6.5.2 Incentives and the legal environment

The law and economics literature is, for obvious reasons, interested in the effect of family law on family behaviour. The presumption is that it has a significant effect, as individuals respond to incentives.

Under a system of dissolution by mutual consent, both parties would consent to a divorce if *both* expected to be better off divorced than married. According to the Coase theorem, the party keenest to end the contract would bribe the other until equilibrium was reached. With the move to "no fault" divorce law¹¹ divorce can occur if only *one* party expects to be better off. A number of commentators speculate about the effect that this change has had.

Becker argues that, in line with the Coase theorem, the primary change will be to the distribution of gains (since the departing party no longer has to bribe the other to obtain their consent) but not to the outcome (Becker 1991). However recent statistical work provides compelling evidence that in the case of North America the liberalisation of divorce law had a permanent impact on divorce rates (Allen 2002). In the case of Europe there is less evidence, and the statistical results are less clear-cut (Smith 2002).

Many have postulated that you would expect to see men instigating divorce more often (Brinig and Crafton 1994, Cohen 1987) since costs of divorce are greater for women and their greater investment in marriage-specific activities makes them vulnerable. However, US evidence shows that women file for divorce more than men, and that this has increased with the introduction of no-fault divorce. Further investigation reveals that filing corresponds closely with eventual child custody (Brinig and Allen 2000). This disjunction between theory and observation remains a puzzle and further work is required to understand what is going on. It appears, however, that both divorce law and custody law have a large impact on divorce behaviour.

Another factor raising scope for opportunism is asymmetric investment in income earning assets such as education. Often the principal asset is the husband's earning capacity, to which the wife will have contributed by her labour in the household. "For example, a medical doctor or other professional has an incentive to leave after a spouse had financed a medical or professional degree if the local courts do not recognise the degree as marital property" (Allen and Brinig 1998: 10). Many US states treat the acquisition of a degree or earning capacity as a factor in awarding alimony precisely because this type of opportunism occurs. The "clean break" principle in New Zealand means alimony is uncommon, although recent legislation now allows for departure from a 50/50 division of marital assets.

In NZ the law regulates not only marriage, but also cohabitation. After three years of cohabitation couples acquire the legal status of marriage, following a modern legal trend of imposing rights and responsibilities on couples irrespective of their wishes. It may be the case that couples deliberately choose to cohabit because they do not want the legal commitments traditionally associated with marriage—in this case regulation of

¹¹ New Zealand adopted this in 1981 – Family Proceedings Act

cohabitation amounts to compulsory marriage for people who would prefer not to be married (Dnes 2002).

6.6 Family pathology

Brinig and Crafton (1994) argue that the increase in spousal and child abuse is a consequence of the unenforceability of the marriage contract. In genuine contracts one would expect investments to be protected, dealings to be governed, and damages paid for breach of contract. The marriage contract, between approximately 1800 and the 1960s, used to have these characteristics—there was clear understanding of the terms of the contract and clear consequences for breach.

The introduction of no-fault divorce has rendered marriage an unenforceable and therefore illusory contract—parties can now terminate the contract at will and without penalties for breach. This has reduced the cost of opportunistic behaviour such as abuse—there is now no incentive other than moral obligation or feelings of affection to prevent post contractual opportunism by either party. This has resulted in fewer marriages, fewer children (less investment) and more opportunism (abuse), particularly of wives and children, since women lose more in divorce, so men have more bargaining power.

From this law and economics approach, the remedy would be legislative change to introduce incentives to abide in the marriage contract. Brinig and Crafton argue for reinstating damages for breach in awarding alimony (although not necessarily as grounds for divorce).

6.7 The changing family

The forces and incentives shaping the drive for family formation have changed over time, resulting in changes to family structure. In traditional societies characterised by uncertainty and limited information, the extended family or kin grouping was a source of insurance in the form of food, a source of valuable knowledge of older members, and a source of reputation as families were held accountable for their members. Becker argues that the market in modern societies now better handles many functions handled by families in traditional societies. "Kinship is less important in modern than traditional societies because market insurance is used instead of kin insurance, market schools instead of family schools, and examinations and contracts instead of family certification" (Becker 1991: 348).

Becker attributes the changes to the Western family after the Second World War to an increase in the earning power of women as Western economies developed. This led to an increase in labour force participation of women and raised the forgone value of time spent in childcare and other household activities. Higher relative price of children resulted in reduced demand for children and a drop in fertility. Higher female income and fewer dependent children reduced the gains from marriage for women and the advantages of sexual division of labour, leading to increases in the divorce rate.

6.8 Critiques

The rationality assumption of economics is the aspect of economics that has perhaps, been most subject to criticism. It is argued not only that this not a good description of

human behaviour, but also that a world with only rational, selfish people would be a bad place to live. A response to this critique is that economics does not imply that all decisions of every individual are the result of cold calculation of advantage. Rather, rationality simply supposes that, in general, people will seek to act in ways that benefit them. Furthermore, the simple models and parsimonious assumptions of economics are not intended to fully describe the world but to capture the most powerful explanatory variables.

A further critique of economics is that it is imperialist—taking over the study of other disciples (Lazear 2000). While it is true that the economic way of thinking has increasingly been applied to non-traditional issue, the application of the rational choice paradigm has offered new insights in other disciplines.

One example of economic imperialism is Becker's economic approach to the family involving maximising behaviour, household production and interdependent preferences. It is now widely accepted not only by economists but also by others who study the family. Subsequent writers have challenged aspects of his work, and some is still contested, but the discipline is still evolving.

Becker argues that a family can often maximize efficiency of labour by having the woman stay at home. Feminists have criticised Becker on this point, although he never advocates that women should stay home and make babies. Feminist critiques of Becker contend that the division of labour is determined not by comparative advantage, but is imposed by men and that discrimination forces female wages down, perpetuating female subordination at home and work.

6.9 The family, policy and the state

Marriage occurs in all societies. A wedding is typically a publicly acknowledged union, and is often accompanied by considerable ceremony and expenditure. Religious vows are often taken. Bride prices or dowries may be paid. All of these features of marriage can be viewed as mechanisms for ensuring that the spouses will fulfil the marriage contract. The public nature of marriage can also be seen as a mechanism for identifying the ancestry of and primary responsibility for children. Private arrangements for marriage pre-date the state and its role in regulating marriage and families by millennia.

The economic model addresses the way that people make decisions on selecting mates, forming families, having children and running households. The law and economics literature examines the rationale and effects of different norms, rules and laws about marriage and the family. An extension of these perspectives is the analysis of the rationale and effects of state intervention in family decisions.

Becker and Murphy (1988) argue that much state intervention can be seen as improving the efficiency of familial contracting. Many public actions achieve more efficient arrangements between parents and children by, for example, acting as proxies for children's interests because children are incapable of acting for themselves. For example, the state provides education in part because even altruistic parents will under-invest in the human capital of their children, because children cannot commit to compensating their parents for their investment in the future.

The law and economics perspective emphasises the role of the state in enforcement of contracts. For example, there is an "efficient level of divorce". The wrong set of divorce laws will lead to too many divorces, or too few for society's perspective—they may induce

divorce when parties might prefer to remain married, or prevent divorce when it would be in their mutual interests and conceivably that of the children. The legislative, and ideally socio-moral, environments should aim to prevent opportunistic appropriation of quasi rents, while allowing contract dissolution on a more equal basis (Cohen 1987).

The economic approach emphasises the substitution effects, incentive effects and unintended consequences of state intervention. Government policies may have little effect because they are neutralised by individuals' responses (Pollak 2002: 39). For example, attempts to redistribute resources to handicapped children in poor families are often thwarted as parents compensate by spending more time and resources on their other children. As a result the target group receives only a fraction of the intended benefits.

The economic approach also focuses of the inter-relationship of interventions. One area of policy can affect family behaviour in other, unexpected ways. For example, laws about child custody are likely to significantly affect family dissolution behaviour, possibly more than laws directly regulating divorce.

A particular issue is how state intervention can lead to efficient and equitable outcomes. Overall, the literature is not optimistic about the ability of family law to provide a perfect legal framework. "Rather than the formal legal constraints, which prove to be tenuous and imperfect, it was the informal social and psychological constraints that by and large protected marriages" (Cohen 2002: 26).

The economic approach illustrates the economic realities behind the institutions of the family. It explains human behaviour not as the result of the cold, conscious calculation of costs and benefits, but as if people in general are aware of the tradeoffs that they face and respond to them in predictable ways. In other words, people make rational decisions in their family and personal lives, just as they do when buying goods and services in the market. The strength of the economic view of the family is that it highlights the fact that all policies have both benefits and costs, and that people will respond rationally to them. The question when considering policy is whether the benefits overall outweigh the costs and results in better outcomes than all other arrangements.

7 Biology

7.1 Explanatory framework

The biological view of the family is based on evolution and the implications of natural selection for human behaviour. It includes evolutionary psychology, which focuses on the development of the human mind, human behavioural ecology, which traces linkages between ecological factors and behaviour, memetics, the idea that culture evolves, and dual transmission theory, which views cultures and genes as co-evolving in separate but linked systems of inheritance, variation and fitness (Laland and Brown 2002, Smith 2000b).

All these approaches to the evolutionary analysis of human behaviour are complementary and have at their core the idea that human behaviour is biologically driven and derived from genetic selection that conferred adaptive advantages in the prehistoric past. It postulates that over generations, humans encountered obstacles to genetic success, and that selection favoured those with brains suited to overcoming these problems (Alcock 2001). Yet while the human brain is the product of evolution, the human condition has changed immeasurably over time.

Since most of human evolution occurred in the Pleistocene on the African savannah, and modern environments are too recent to have permitted rapid evolutionary change among humans, evolutionary approaches look to the prehistoric and not the modern environment for adaptive explanations. The hypotheses generated by the approach are typically tested in environments that are surmised to resemble the prehistoric context—contemporary pre-industrial societies.

Evolutionary biologists consider that some human traits are universal, that they are likely to have genetic causes and that it should be possible to find evolutionary explanations for them (Morris 2001). The evolutionary approach tries to explain ubiquitous behavioural inclinations in terms of their adaptive functions ie, to explain how they could contribute to fitness. It is not easy to determine what complex physical and mental traits were adaptations. An adaptive trait is one that directly or indirectly promoted reproductive success when it originated. But not all traits are adaptive—some may be accidental or simply be by-products of adaptations rather than adaptations themselves.

Evolutionary theory suggests that there are real differences between men and women that developed in the past to enhance survival in past environments. Choosing a partner, achieving and assessing status, cementing relationships and identifying offspring as their own are recurrent adaptive problems faced in human evolutionary history. Individuals who best solved these problems left more descendants than the less well fitted. The differences between men and women, consequence of the human system of reproduction, mean that humans carry genetic predispositions that may not confer an evolutionary advantage in today's world.

A core idea of the evolutionary approach is that almost all the main differences between males and females stem from differences in their investment in offspring (Trivers 1985). Females start with a bigger investment (the egg) and make further investment in feeding and caring for infants. Males make a smaller investment, contributing sperm and become devoted fathers when the benefits exceed the costs—when the offspring need his care; are easy to protect and when he can provide for them (Pinker 1998). Females thus produce few, large, expensive eggs, while males produce many small cheap sperm. The return on effort is different, too. While there may be a high fixed cost for males in establishing status and acquiring resources that procure access to females, the marginal cost of each additional offspring is low. For females, each additional offspring requires about as much resources as the first as there are few economies of scale in childbirth.

Since each offspring needs an egg and sperm, the number of eggs the female can produce and nurture limits their number. A single male can fertilise many females, creating competition between males for females. On the other hand the reproductive success of females does not depend on how many males they mate with, but on choosing the "best" male. The level of parental investment leads the greater-investing sex to choose and the lesser-investing sex to compete to be chosen.

Evolutionary theory therefore predicts that because men and men have different levels of investment in children, leading to different evolved psychologies, their priorities and behaviours are not identical. These differences have profound consequences for how individuals make decisions and how they behave within families.

7.2 Family formation

Evolutionary theory suggests that the relative investments of men and women in children mean that they have different mating strategies that can have profound implications for the formation of families. Since there is little or no male parental investment in most mammalian species, female mammals typically chose mates on indicators of their genetic quality such as strength, size and aggressiveness. However, human infants are helpless and need intensive and prolonged parental investment—more than the mother alone can provide. Sexual selection is thus likely to have favoured human males able to provide extra investment and females who choose males not only on indicators of their genetic fitness, but also on their ability to provide parental investment (Chisholm 1999). Males compete not only for the role of mate, but also for the role of father—the ability and willingness to provide resources to raise children that will pass on their genes. Women select males with the ability to invest in their offspring, as demonstrated by their age, wealth and status. Women who marry successful older men are likely to leave more descendants than those who marry younger unproven men.

The theory suggests that men have thus developed a predisposition to seek status, for example through hunting prowess, or the acquisition of wealth, that signals to prospective mates their ability to provide for children. This tendency includes competing with other males for domination. Competitive risk-taking and social display (showing off) are likely to be an evolved male trait to honestly signal personal qualities (Zahavi 1977). Successful risk-taking is accorded generalised prestige and status, based on an implicit assumption that it reflects enduring personal qualities that will ensure ongoing success in other endeavours. The respect of peers is a major determinant of social status, and the respect that status affords reduces the likelihood of challenges from other men and increases attractiveness to women (Winterhalder and Smith 2000). The risky competitive inclinations of men are manifested in various ways, from fast cars, to sports, gambling, drug taking and work, as well as in direct confrontations, often involving the threat of or actual violence, with other men.

A key insight of the evolutionary approach is that low-status men who face reproductive failure (in contemporary society typically unemployed, disadvantaged, single and young) compete most strongly for access to women and have the least to lose in conflicts with one another. Young single adult males, with few resources and poor prospects are most likely to engage in risk-taking behaviours and in dangerous, competitive altercations with other men—this has been termed the "young male syndrome" (Wilson and Daly 1985). Men who lack demonstrable status and wealth that could induce women to choose them may fall back on coercion—the threat or use of force—of women to have sex with them (rape), of others to give up resources (robbery) and of other males to give them power and respect (aggression, violence and risk-taking behaviour) (Chisholm 1999). These predispositions are likely to be have been adaptive—men exhibiting them are likely to have left more descendents carrying these genes than those in similar circumstances who did not.

Buss (1994) identified that differences in the taste for mates is universal among men and women. For example, men typically seek women who are young and beautiful, whereas women seek men who are older and wealthier. Evolutionary theory suggests that a man's reproductive success depends on the fertility of a wife, and the younger the wife, the more children she can bear and rear, so men have developed a taste for nubile women (Buss 1994). Younger women are also unlikely to have children fathered by other men. Female beauty reflects a woman's reproductive virtues, including health, youthfulness and not having been pregnant, and acts as a signal of genetic fitness

(Symons 1995). Women try to make themselves more beautiful to increase their ability to compete for husbands.

These preferences have been confirmed (and replicated elsewhere) in a study of people in 37 countries, which showed that people everywhere value intelligence, kindness and understanding most highly, but that men and women differ in the other qualities they seek in a mate (Buss 1994). Women value earning capacity, status, ambition and industriousness in a man, while men value youth and beauty. Women prefer older men, while men prefer younger women. As a result, older, prestigious men can attract young and beautiful women. At the same time, very successful, high status women prefer men who are even more successful. The standing of men relative to women is importantwomen everywhere prefer to marry men of higher status than themselves (Buss 1994). They find cues to men's status attractive, and men, in turn signal their status to women. Women's preferences mean that they trade off physical attractiveness of men for resources in seeking long-term partners (Gangestad and Simpson 2000, Waynforth 2001). People tend to find marriage partners they see most often and that are most like them in terms of intelligence, status and appearance (Buss 1994). This assortative mating tends to reinforce characteristics and reduce variability in a population.

7.3 Family structure

Evolutionary theory suggests that the differential strategies of men and women influence family structure. Biological differences, for example in the size of men and women, can provide clues about the structure of pairing bonds. Human males are around 1.15 times bigger than females, suggesting that males have competed for females in evolutionary history. Biologists also suggest that there is a correlation between the size of testes and the level of promiscuity of a species—the larger the testes, the more promiscuous the species is likely to be. Human males have relatively small testes relative to body size (bigger than monogamous gibbons, but smaller than promiscuous chimpanzees), indicating that in the evolutionary past females were not promiscuous, but not wholly monogamous either (Ridley 1993).

While polygyny is the most common evolutionary strategy for mammals, humans are exceptional among mammals and are more like most birds in typically, but not always, adopting monogamy. This is related to the enormous effort that is required in rearing a human infant. Human children are very dependent for a long time and need the full time care and attention of both parents. The evolution of prolonged helplessness in human infants that required more resources and attention than the mother alone could provide is likely to be the origin of the two-parent family and the caring role of the father (Chisholm 1999).

The prolonged dependency of human children requires parental care for a long time, and parents who cared for their children are likely to have had more descendants than those who did not. Natural selection, therefore, is likely to have endowed parents with emotions such as love, solicitude and commitment to invest resources and attention in their children (MacDonald 1992). Men invest in their offspring, providing more than genes—they love, feed, protect and teach their children. This pattern is likely to have evolved in egalitarian hunter-gatherer societies, and when males are relatively equal in status, monogamy is the norm.

However, when some males can monopolise sufficient resources to allow a female to survive and reproduce, they can use this control to attract mates and compete with other

males for dominance. Polygyny and an increase in the variance of male mating success will result (Winterhalder and Smith 2000). Unlike the monogamy likely to have been the norm in hunter-gather societies, the development of agriculture allowed men, predisposed to compete for status, to accumulate wealth, power and wives—resulting in polygyny (Hrdy 1999). Male coercion arising from wealth power and can severely constrain female choice, since most women seek monogamous marriage, even in societies that permit polygamy. They want to choose a man carefully, get his help in rearing children and monopolise him for life (Ridley 1993). In polygynous societies, it is only the wealthiest and powerful men who can afford more than one wife at a time, so most marriages are monogamous, but there are more (low status) bachelors than spinsters.

Most human societies practice effective polygyny—women are a contested resource and successful men routinely convert their status and power into monopolising their access to multiple women. Even in monogamous societies, infidelity, divorce and remarriage biased towards wealthier and higher-status males create a situation of effective polygyny. At the same time, many men may not be able to attract and support several women, so monogamy may be the norm for most people. Men with low status and few resources face strong competition and may not be able to attract female favour. Men at this end of the scale may face complete reproductive failure.

The "young male syndrome" (involving behaviours such as risk-taking, stealing, violence, egotism and sexual misdemeanours) can be seen as an adaptive response to uncertain and risky environments to maximise reproductive success. Early stress and poor attachment as an infant can lead to subjective experiences of insecurity that contribute to the "young male syndrome" (Chisholm 1999). The evolutionarily rational risk-taking behaviour of disadvantaged young men with poor education and few prospects is mirrored in contemporary society by their disproportionate involvement in illegal activities such as drug-taking and crime.

It can also be evolutionarily rational for young women in uncertain and risky environments to take risks. Early childbearing and/or a high rate of reproduction may thus be an adaptive response. Sole motherhood may also be a rational response to risk and uncertainty in women's lives where men do not have reasonable and predictable access to the resources that women require to bear and raise their children (Geronimus 1997). In these circumstances it may be an adaptive response to maximise current reproduction to choose a man for genetic rather than parenting fitness—selecting on the basis of his current contribution (genes) rather than future investment (parenting resources). The payoff to seeking a man who will be a good and secure provider in the future in these circumstances may be low and take time (Chisholm 1999).

This "young female strategy" is a counterpoint to the "young male strategy" in chronically risky and uncertain environments. Like the "young male strategy" the "young female strategy" undermines long-term monogamy. In environments with many poor, low status men with little ability to support a family, women may become accustomed to sex without commitment and to bringing up children on their own (Wright 1994a). The focus on current reproduction rather than long-term parenting means that emotional attachment may be short-lived and non-exclusive. Maintaining a monogamous relationship with a low-status man with few resources to offer may also disadvantage a woman. Not only may he fail to provide for the woman and her children, but he may also compete with the children for available resources and preclude her choosing another "better" man. Furthermore, she may be subjected to violence as the result of sexual jealously that is part of the "young male syndrome".

By maintaining relationships with a number of men, especially men who are the fathers of her children, a woman can spread the risk of unpredictable resources among many men (see for example Shotak 1981). By not allowing any one man to live long with her and her children, she can limit sexual jealously. She can also maintain links with the relatives of each man—adding to the potential sources of resources for her children. Sole motherhood often occurs in the context of several generations of women in an extended family, allowing access to the wider family's resources. This "facultative polyandry" can be an adaptive reproductive strategy under conditions of risk and uncertainty that can improve the resources available for the children and increase their chances of survival to adulthood (Hrdy 2000). The "young female strategy" is reflected in contemporary society by a large number of single mothers with poor education and few job prospects.

7.4 Family behaviour

A number of aspects of human behaviour as individuals and within families have an evolutionary explanation. These behaviours are seen as being adaptive in the evolutionary past, leading to grater reproductive success. However, some predispositions are not necessarily appropropriate in contemporary society, and may indeed be positively undesirable as discussed in Section 7.6. Importantly, the behaviours are not necessarily inevitable or pre-determined—they are predispositions that can be consciously controlled, and the laws, norms, values and culture of societies are important in channelling them in more desirable directions. Nevertheless, an appreciation of the biological imperatives underlying behaviours, such as a preference for caring for relatives rather than strangers, can help both in devising policy and understanding its limitations.

7.4.1 Altruism

Relatives share genes, so a gene for altruism towards kin can benefit a copy of itself. Cooperation and altruism are thus explained by the success of genes that cause relatives to look after each other because they share the same genes.

Both cognition and emotion foster the reproduction of genes. People in all societies define themselves in terms of their kinship—their parentage, family ties and ancestry. People also have emotional bonds with their kin, showing them more tolerance, trust and goodwill than towards strangers.

But the level of altruism directed at kin depends on the nearness of the relationship, and the probability that the kindness will help to reproduce one's own genes. In evolutionary terms, familial love is correlated with the probability that loving acts would enhance the probability of benefiting copies of one's genes. A genetic predisposition to help other people will spread because altruists will be helped when needed, while selfish individuals who do not help others will not be helped when they need it. Altruism has thus been described the mechanism by which DNA multiplies itself through a network of relatives.

7.4.2 Sex/gender roles

Differences in the roles of the sexes are persistent and universal. Some of these are likely be very ancient and shared with many birds and mammals—females nurture babies while males are concerned with status and dominance hierarchies and compete for access to females. Others are likely to be related to historical roles—males hunted and women gathered—and the environmental context.

Dimorphism in labour may be due to male-female complementarity in household provisioning and child-rearing. A mother is typically the primary care-giver and protector of a baby—she is present, hormonally primed, capable of lactation, sensitive to infant signals, related to the baby and has a big stake in the baby's survival (Hrdy 2000). Maternal responsiveness to its needs attaches the infant to its mother and *vice versa*. The closer connection of women to their babies is likely to be an evolved response, since indifference would have been disadvantageous in reproductive terms. The very experience of carrying and giving birth is likely to trigger nurturing feelings in mothers, while other factors trigger these feelings in fathers (Miller 2001).

Evolution has provided a limited role for a father to care for an unweaned baby. In all societies women take primary responsibility for infant care and continue to provide solid food beyond weaning. Infants show greater fear of strange males than strange females. Mothers abandon children less frequently than fathers and display more grief than fathers at the loss of a child (Campbell 1999). However, it is not inevitable that mothers alone should care for babies—where safe child-care is available from benign, committed and interested caretakers (usually female kin), mothers will use it. They will even use less-than-ideal carers when it is better than the available alternatives.

Evolutionary theory suggests that part of the gender gap in the modern work environment might be the result of differential reproductive strategies followed by men and women over the course of human evolution and may thus be a product of natural selection (Winterhalder and Smith 2000). The evolutionary view suggests not that men and women have different abilities but that they have different ambitions. Whereas men's reproductive success depended on competing politically for status and economically for wealth, women's reproductive success depended on selecting the right mates and nurturing children.

Evolutionary theory predicts that men will tend to be more status-seeking, risk-taking, aggressive, dominance-seeking, achievement-oriented, persistent, single-minded, goaloriented and competitive than women, since men's work evolved and continues to be shaped by showing off to signal information about the individual (Hawkes and Bird 2002). The tendency towards risk-taking at work may mean that men typically achieve higher positions with higher pay than women in the labour market (Browne 1999, Browne 1995, 2002).

Men and women also value different aspects of jobs—men typically stress financial aspects, whereas women stress interpersonal aspects. Women will tend to be more nurturing, empathetic, co-operative and concerned with maintaining a web of relationships, as these traits would have been valuable in reproductive strategies in an ancestral environment.

Although evolutionary biology suggests women's agendas do not often include climbing political or business ladders, it says nothing about how good they would be if they did (Ridley 1993). The similarities between men and women suggest that there are few occupations that will be the exclusive domain of one sex. However, many occupations are likely to be dominated by one sex or another if they are selected on the basis of individual preferences and abilities.

7.4.3 Fertility and child-rearing

Since fertility and child-rearing are at the heart of reproduction, evolutionary theory explains parental behaviours as adaptations. Parents try to maximise their reproductive

success by investing time, energy, care and resources that increase the chances of survival of their offspring. Since decisions about child rearing are essentially about how to allocate parental resources between children and parents, the payoffs depend on the relatedness of the child and the effect of the investment on the future reproductive value of the offspring and the effect of investment on the parent's own reproductive value (Winterhalder and Smith 2000).

Increased fertility can reduce investment per child and reduce the overall reproductive success of the parents. Humans, like other mammals, typically follow a genetic strategy of producing relatively few offspring and caring for them until they can fend for themselves. People have evolved, not to produce as many children as possible, but to trade off quantity for quality, for example by achieving food security that will increase the chance that at least a few children will survive and prosper (Hrdy 2000).

Parental investment generates a conflict of interest between the parent and the child since their genetic interests only partly overlap. From a genetic perspective, parents are interested in all their children equally, because they each carry half a parent's genes, but a child is concerned for its own welfare and discounts the welfare of its siblings, who share only half its genes (Dawkins 1989, Trivers 1985). Children get more from their parents than the parents are willing to give, but less than they would like to receive.). Parent-child conflicts arise typically at weaning and adolescence when interests are most at odds.

Parental decisions about the allocation of resources among children are also driven by the imperative of reproductive success. To raise even a few children to adulthood, parents may face a choice between children. They thus typically wean an older child and prepare for a younger one when the benefits to the younger exceed the costs to the older. However, the older a child gets, the more likely it is to survive and reproduce, so when circumstances demand it, parents may sacrifice a younger child in favour of an older one (Daly and Wilson 1988).

The acquisition of wealth and status by parents can affect the reproductive success of their children. Wealth and status that is transmitted to children can permit them to find "better" mates (through assortative mating) than poorer, low status individuals. For example, rules of inheritance typically favour sons over daughters, particularly among the wealthy, and confer a genetic advantage, providing the son with the means not only to attract a high quality mate, but also to become a successful adulterer.

Children themselves have strategies to ensure the successful reproduction of their genes. Children have a psychological armoury to induce their parents to care for them, matched by the emotional responsiveness of parents. Babies and children manipulate their parents by being cute and responsive or by crying and temper tantrums. Parents who respond to these signals are likely to rear their children to adulthood than those who do not.

Children develop other strategies to improve their chances of survival within a family with other siblings who compete for resources and parental care and attention. They are sensitive to favouritism and try to ensure that they get their "fair share" of resources (Landsberg 1997). There is some evidence that personality is not wholly endogenous, but is affected by birth order since personality may be an adaptive strategy for competing with siblings for parental investment (Sulloway 1995).

The behaviour of men in relation to fertility and childrearing is also explained in terms of implicit strategies to increase their reproductive success. Because women have concealed ovulation (unlike other primates) and are not only sexually receptive during

ovulation, men cannot be sure of the paternity of any children. According to evolutionary theory, uncertainty about paternity is a fundamental driver of male behaviour ranging from mate selection to sexual jealously and childcare. For example, since men cannot be sure of their paternity, they are predisposed to seek faithful women as wives, but also tend to seek liaisons with other women to increase their reproductive capacity (Wright 1994a).

The more confident men are of paternity, the more time, emotional involvement and resources they tend to invest in bringing up children (Gaulin and Schlegel 1980). Men have tried to increase the certainty of paternity by a variety of means, ranging from chastity belts to DNA testing. In societies where confidence in paternity is low, men invest not in their wives' children, but in their sister's (Alexander 1995). Certainty of paternity also affects the investment of grandparents—maternal grandparents invest more than parental grandparents, with the mother's mother investing most and the father's father investing least (Buss 1999).

The interests of kin in rearing children are also reflected in the preferences of mothers for entrusting childcare to relatives (notably grandmothers) rather than strangers, even professionals (Cabinet Office 1999). Human females have lived for decades past the time where they are fertile—in contrast, men remain fertile into old age. It is possible that humans have evolved to live long enough to get their last children to independence, and to become increasingly altruistic with age. The grandmother hypothesis suggests that postmenopausal women can increase their own genetic fitness by providing or caring for grandchildren, especially the offspring of daughters, since they have less to lose by assisting kin as their own reproductive capacity declines. This altruism could increase the survival of close kin, and increase the spread of genes for longevity (Hrdy 2000).

7.4.4 Infidelity

While humans, as discussed above, typically practise monogamy, both males and females are often unfaithful to their spouses. Evolutionary theory suggests that a predisposition towards infidelity is adaptive, enhancing reproductive success. Infidelity by both males and females within a monogamous marriage can confer advantages—males beget more young and females better young (Symons 1980).

There are obvious benefits for males. They father more children but do not incur the expense of rearing the offspring. In evolutionary terms, infidelity is rewarded, and a taste for sexual variety can thus be seen as an adaptation. Yet, although men may have taste for multiple sexual partners, adultery is not inevitable. Self-control, the availability of potential partners, the man's attractiveness and the expected costs of infidelity can act as a brake on desire.

Evolutionary theory also suggests that infidelity benefits females. Evidence from studies of birds suggests that by marrying a mediocre male (who invests in her children) but mating with a better male, females can produce better offspring—when women have an affair they tend to choose a man of higher status than their husbands (Ridley 1993). Women can also obtain gifts in return for sex. Hunting of large animals is generally a specialty of men, and is typically communally shared. While the meat provides nutritional benefits, it also credibly enhances the status of the hunter and provides access to women (Hawkes and Bird 2002).

Buss (2000a) has found that male sexual jealously is universal. Evolutionary theory suggests that it may be an adaptive defence against cuckoldry. A cuckolded male cannot be certain of his paternity of his wife's children and may invest in rearing children that are

not his own, so female infidelity is a threat. Male infidelity is less of a threat to the genetic interest of a woman, since someone else will rear any child, although it might divert the male's resources. Men are therefore jealous of the infidelity of their wives, whereas wives are jealous of their husbands giving time, resources and attention to another woman (Buss 1994). As Pinker (1998: 488) notes "men may be upset about affection because it could lead to sex; women might be upset about sex because it could lead to affection".

In contemporary society, a predisposition towards male sexual jealously may help to explain domestic violence where women are hurt by men. Evolutionary theory explains the tendency of men to seek to control the reproductive capacity of their daughters, wives and girlfriends in a variety of ways as adapative. Jealous men may confine women in their homes, segregate them from contact with men (purdah), cover them up (veils, chador), incapacitate them (foot-binding) or follow or guard them to prevent infidelity. Language can also help absent men monitor the behaviour of their wives through gossip (Ridley 1993).

The differences in the genetic consequences of infidelity are mirrored in the "double standard" by which adultery by a married woman is punished more severely than adultery by a married man. This double standard has historically been reflected in the law— adultery was a tort and rape an offence against the husband (Daly and Wilson 1988).

As noted above, human ovulation is hidden, and is an underlying driver of many male behaviours. Yet the evolutionary advantage of cryptic ovulation itself is not clear (Ridley 1993). It may induce faithfulness by husbands who must remain close to a woman and have sex often to be sure of fathering her children, or it may allow a woman to be unfaithful, allowing her to mate with a superior man by stealth.

7.5 Family dissolution and reformation

Evolutionary theory has particularly powerful explanations of the behaviour of step-parents in re-formed families—the "Cinderella" hypothesis. This suggests that step-parents, who have no genetic investment in step-children differentiate between them and their own children. This explanation of the behaviour of step-parents can assist in understanding the biological drivers underlying child abuse in re-formed families (discussed in Section 0), and perhaps in devising policies that prevent or ameliorate it.

7.5.1 Divorce

The evolutionary explanation of divorce is closely linked to that of infidelity in terms of providing husbands with increased opportunities to pass on their genes. The longer he is married, the greater the temptation for a husband to desert his wife, since his reproductive success can be enhanced by finding another, younger woman. Older men, who can command status and resources, can start new families, typically with a younger wife.

In some societies rich men have many wives and families simultaneously (polygyny). In monogamous societies rich men start new families and abandon former ones. Male discontent is a strong predictor of divorce, and men are more likely than women to remarry after divorce (Wright 1994b). Men do not prefer to marry higher-status women. In the US, the divorce rate among couples where the wife earns more than the husband are 50% higher than among couples where the husband earns more (Cronin and Curry 2000: 3).

In contrast, seeking another husband cannot increase the wife's inherently limited reproductive capacity. In any case, she becomes less attractive as a potential mate as she ages and her fertility declines. Her children (who would impose costs on a new husband) may also make her unattractive. But a woman married to a low-status man who cannot provide adequately for the family may be better off on her own or with another man, so a husband's failure to provide for his family is a major cause of divorce (Buss 1994). However, an absent father may have negative consequences for offspring (see Belsky 1997, Chisholm 1999, Draper and Harpending 1988, Moffitt, Crespi, Belsky and Silva 1992, Waynforth 2002).

7.5.2 Step-families

The evolutionary explanation of parental solicitude is that it is designed to allocate investment towards the parent's own young in order to promote reproductive success. However, step-parents are not, and know they are not, related to the children of their spouse, and so are predisposed to be less solicitous to their step-children than to their own children (Daly and Wilson 1998). In evolutionary terms it makes sense that the welfare of one's own child is more important the welfare of a step-child. At the same time, investing in a predecessor's offspring can be the price paid for future opportunities to mate with the genetic parent. Step-parents are primarily replacement mates and only secondarily replacement parents.

There is a large folklore about cruel step-parents that suggests that the tensions in stepfamilies and concern about the effect on the well-being of children are universal. However, although most step-families function reasonably well, a number of studies show that step-parents invest less emotionally and materially than genetic parents. Daly and Wilson (1998) suggest that the presence of a step-parent is the single most powerful riskfactor for child abuse. Moreover, martial happiness is less in step-families and stepparents and step-children both view the relationship as less loving and dependable than relationships between genetic parents and children. Less is expected of step-children academically, and they leave home at a younger age than genetic children.

7.6 Family pathology

Although the evolutionary explanations of behaviour are postulated to be adaptive responses to challenges in Pleistocene environments, those behaviours are not necessarily beneficial in modern society. Indeed, some behaviours, such as aggression, violence and sexual coercion are seen as socially harmful and thus undesirable and are therefore controlled by social norms and laws. At the same time, while individuals may have these predispositions, they have the capacity for self-control and the ability to change their behaviour to suit different environments. This ability in itself is likely to have been adaptive, allowing people to adopt different strategies to maximise their reproductive fitness in different situations. The tension between predisposition and self control provides insights that can be useful not only in understanding the underlying reasons for certain types of undesirable behaviour, but also in devising effective policies to limit them.

7.6.1 Aggression and violence

Violence and aggression are likely to have been behaviours that promoted reproductive success in the distant past—simply put, individuals who were prepared to be violent or aggressive left more descendants than those who did not. However, these behaviours

may not confer such benefits in the modern world, and their effects on others make then socially unacceptable.

Infanticide, for example, may be an evolved behaviour, an adaptive way for mothers to resolve the problem of rearing an infant in unfavourable circumstances or when it is unlikely to survive. In modern Western societies for instance, young, poor and unmarried mothers are at higher risk of committing infanticide (Pinker 1998). The incidence of Sudden Infant Death Syndrome (SIDS) may include a proportion of deaths by infanticide. The emotions of mothers may have been shaped by the necessity of the decision to let a newborn baby live or die. Postnatal depression seems to be most severe in circumstances correlated with infanticide such as poverty, marital conflict and sole motherhood. The gradual process "bonding" with a newborn baby may play a part.

Male sexual jealousy and aggression towards unfaithful wives or girlfriends and their lovers is likely to reflect the different genetic consequences of infidelity by men and women. It is the biggest cause of domestic violence and homicide, generally by men (Pinker 1998). The differential effects of infidelity are reflected in the lesser punishments for men who kill their adulterous wives and their lovers in "crimes of passion". Women are typically only violent towards their husbands in self-defence or after years of abuse.

Male aggression is a "high stakes, high risk" activity that is postulated to be an evolutionary adaptation to competing for a scarce resource—female reproductive capacity. Males engage in dangerous behaviour and risky confrontations where the reward is increased status and respect (Wilson and Daly 1985). Men have powerful motives to compete for status, since women select mates on signals of status that reflect genetic superiority (Buss 1994). Rivalry between men results in arguments, insults, fights and murder—duels are a formalised example. Being male is the biggest risk factor for violence—and men kill 26 times more often than women (Daly and Wilson 1988). Men and boys are also more aggressive and more frequently aggressive than women and girls. The fiercest rivalry is typically among low status males whose prospects of attracting women are low. Young, poor men with nothing to lose discount the future steeply and are reckless (driving too fast, taking drugs, committing crimes, for example) in defending their reputations (Rogers 1994).

Among hunter-gatherer societies, war allows men greater access to women, both from the conquered group, and as being a warrior confers status, from their own group (Pinker 1998). The genetic payoff may have allowed the evolution of a willingness to fight. Brownmiller (1975) suggests that while modern warfare differs, it is similar in that soldiers abduct and rape women. In contrast, women's reproductive success is not increased by warfare that adds available males and involves a risk of death. Evolutionary theory suggests that it is not surprising that women have not evolved an appetite for warfare.

In evolutionary terms, females have little to gain and much to lose from aggression, and are less aggressive than men. The need to care for infants (whom they are sure carry their genes) makes women concerned about staying alive and adopt low-risk strategies in conflicts. Females exhibit greater concern for their own survival than males and display more fear than males. Female aggression is likely to occur around scarce resources (necessary for her survival and that of her offspring) rather than status, and to be low-key and indirect (Campbell 1999).

When violence and homicide in families does occur, it is typically not directed against blood relatives, but against spouses, in-laws and step-relatives. The risk of being killed by a non-relative is at least 11 times higher than being killed by a blood-relative, even focusing on people who live together (Pinker 1998). Conflict among blood kin occurs less often and is resolved without killing more often, than among non-kin. Reciprocity between kin is part of conflict resolution.

7.6.2 Sexual coercion

Evolutionary theory suggests that sexual coercion may be an obvious mechanism by which men (who are bigger and more powerful than women) can enhance their reproductive success. Nonconsensual sexual intercourse (for example in rape or incest) may thus have an adaptive explanation, but different genetic payoffs for the males and females involved.

Incest avoidance is universal. Because close relatives share genes, mating increases the risk that defective recessive genes will result in compromised offspring. Natural selection will favour individuals who do not mate with close relatives (Thornhill 1991).

The evolutionary explanation for incest avoidance is that people have evolved emotions that make mating with a close relative repugnant, since they cannot directly determine relatedness (Pinker 1998). Children that are reared together, even if they are unrelated, do not tend to marry or mate. The most commonly cited example is that of Israeli kibbutzim, where unrelated children were reared communally but when sexually mature did not pair up. In another example, in Taiwan infant girls were brought up in the families of their future husbands, but the eventual marriages were typically infertile and unhappy. People become sexually averse to people they grow up with—closeness in the early years induces perceptions of kinship that negate sexual desire. People who do commit incest have often been reared apart. Fathers who sexually abuse their daughters may not have had much contact with them as small children.

The evolutionary explanation for differing emotions towards incest is that different incestuous pairings have different genetic costs and benefits for the parties (Tooby 1976a, b). Mother-son incest is rare, since there is no genetic advantage to either, and men in any case are not generally attracted to older women. For daughters and sisters pregnancy would be potentially very costly and repugnance strong—precluding other opportunities for pregnancy and involving years of breastfeeding and the possibility that the child will be deformed and require additional and long term care. Mothers get no genetic benefit and suffer the costs of defective grandchildren, and so oppose incest between the daughters and fathers or sons. For fathers and brothers, mating with a daughter or sister can increase the number of offspring sired, even if there is a genetic cost—the risk that the child will be compromised. Also, the father may not be certain that the daughter is his, reducing aversion to incest. For step-fathers and step-brothers there is no genetic cost. Most reported cases of incest are between step-fathers and step-daughters and step-daughters are coerced.

Thornhill and Palmer (2000) argue that rape arises from men's evolved preference for a large number of mates in an environment where women choose their mates. The evolutionary hypotheses for rape are (1) that rape is a by-product of male evolutionary adaptation for multiple sex partners and (2) that rape itself is an adaptation. They conclude that although existing evidence is insufficient to determine which hypothesis is correct, it is clear that rape is centred in men's evolved sexuality. As discussed below, this conclusion has been subject to criticism by feminists who argue that rape is about control. Thornhill and Palmer also suggest that the severe emotional and psychological

responses of women who are raped may be an adaptive response to the differential genetic consequences of rape for women.

7.7 The changing family

The crucial lesson of the evolutionary approach is that our prehistoric past shaped behaviour in ways that strongly influence us today. However, today's environment is vastly different from the Pleistocene. These changes include greater population density and larger communities, more anonymity and a less egalitarian society.

Behaviours that might have conferred adaptive advantages in the evolutionary past may no longer be appropriate in modern society, and may indeed be seen as pathological. Nevertheless, the underlying drivers of such behaviours remain. However, although the underlying forces underlying these behaviours can be explained, they cannot be justified. The human brain has adapted to be able to adjust behaviour to different circumstances. Behaviour is therefore not biologically determined—although there may be predispositions towards certain behaviours, those predispositions can be controlled.

7.8 Critiques

The evolutionary thinking about human behaviour that emerged in the 1970s was attacked vigorously, by social scientists in particular. The principal grounds were that it was simplistic and prejudicial. Adaptive explanations were dismissed as "just-so stories" and *post hoc* rationalisations. Evolutionary biologists, however, counter that the natural selection is the principal explanation for the design of adaptive traits. Cosmides and Tooby (1992) defend adaptationist thinking by pointing out that theories in evolutionary psychology have revealed previously unknown facts and reminding critics that questions about the function of a given structure of organs have been the basis for every advance in physiology.

While both the economic and evolutionary approaches to the family involve postulates about human behaviour it is recognised that economic explanations of how people behave may not necessarily be true, and that they are only useful if they can predict human behaviour. In contrast, adaptionist explanations in the evolutionary biology literature are often presented as if they were indeed true. However, the theories produced by evolutionary thinking, like economics, should be assessed in terms of their predictive usefulness.

Sociobiologists also were accused of abusing science to reinforce undesirable values, and critics dismissed their views on the grounds that they could be used to justify oppression by encouraging racism, sexism, elitism and imperialism (Irons and Cronk 2000). However, perhaps in response to this criticism, modern evolutionary theory emphasises that no argument about the nature of behaviour can be used as a justification of that behaviour.

Nor are evolutionary explanations equated with a deterministic view of human behaviour. While they can predict tendencies, it cannot predict how a particular individual will behave. They do not imply that there is a single gene that is responsible for a particular aspect of behaviour. Nor does it mean that behaviour is wholly determined by genetic influences, but that a range of environmental influences plays a part in development and behavioural choices. Wilson (1978) postulated that genetic diversity underlies differences between cultures This was one of the most controversial aspects of socio-biology and was heavily criticised. Modern approaches however, concur that culture can evolve without genetic change and that individuals from different cultures can acquire cultural traits with ease. Human behavioural ecologists emphasise that culture is an evoked behavioural adaptation while evolutionary psychologists emphasise the common human nature that underlie cultural universals (Buss 2001, Laland and Brown 2002, Tooby and Cosmides 1992).

The most recent topic to evoke strong criticism is the adaptive explanation of rape by Thornhill and Palmer (2000). The idea that rape is genetic is one that critics found objectionable, running counter to the prevailing feminist theory that rape is a crime of violence against women, and not sexual. However, evolutionary biologists counter that understanding the genetic basis of rape could help to reduce it and the adaptive harm that it imposes on victims (Alcock 2001).

Darwin's theory of evolution is widely accepted among biologists. However, it is not a single idea, and biologists can and do disagree on many of the details while agreeing that natural selection is the main cause of evolution. The principal debate is between Dawkins and Gould. Both sides agree on the fundamental idea of evolutionary change—adaptive modification through natural selection. They agree that all life, including human life, has evolved from one or a few ancestors. They also agree that the process has been natural rather than divine and that chance plays a large part in evolution. They agree that natural selection matters and that life forms more suited to an environment will tend to survive and transmit their genes to descendants. They also agree that complex capacities, like vision, evolved by natural selection and that human evolution works slowly. They agree that natural selection works by cumulative selection and single-step changes must be very rare (Sterelny and Turney 2001).

The debates are detailed and at times acrimonious, but the principal criticism by Gould seems to be that evolutionary biologists such as Dawkins see everything as a result of adaptation and competition between genes and do not recognise the existence of multiple forces in evolution and selection at different levels (Segerstråle 2000). The debates are current, the research is ongoing, new information is constantly emerging and advances continue to be made. The scientific controversy that has surrounded evolutionary explanations of human behaviour is a sign of the vigour and potential strengths of the field.

7.9 The family, policy and the state

Although human nature may be determined by evolution, the behaviour that it generates is not fixed but hugely varied. Changing material and social environments alter behaviour as the evolved human mind responds in predictable ways to new circumstances (Cronin and Curry 2000). Evolved intelligence (a biological phenomenon) brings with it the ability to create new behaviours and societies. The evolutionary approach therefore suggests not just that certain human traits are inbuilt, adaptive responses to situations that existed in the distant past, but also that human behaviour can be altered to suit contemporary environments. Human behaviours are thus not completely biologically–determined or "hard wired"—human beings are capable of exercising free will and making choices. The evolutionary approach is not a defence of the *status quo*—human beings are capable of change.

Even so, in contrast to the standard social science approach that implies that the human brain is monomorphic and that sex differences are due to socialisation, the evolutionary approach emphasises that major aspects of behaviour are strongly influenced by biological predispositions, as they are for other animals. The underlying reason is the difference between the sexes in the level of investment in offspring. However, there are no necessary policy implications, since the existence of biologically based sex differences does not in itself suggest what, if anything might be done about them.

However, understanding genetic imperatives can help in understanding why people behave the way they do and why problems addressed by government intervention (such as persistent unemployment among low-skilled young men) can be so intractable. It can also lead to a better understanding of how to encourage people to behave appropriately in today's world. Knowledge of the ultimate causes of certain predispositions can provide help in understanding behaviours, and devising policies to change behaviours while appreciating their limits (Browne 1995).

Concern for kin is a universal human behaviour. A key insight of the evolutionary approach is an understanding of the reasons underlying the bonds between blood relatives and the strength, centrality and implications of blood relationships among kin. The genetic ties between family members mean that families are likely to be stable in some dimensions, such as intergenerational and kinship bonds, flexible and adaptive in others such as economic opportunities that change the value of marriage, and socially and psychologically problematic in yet others such as the impact of family structure and stability on the welfare and development of children (Rossi 1997).

The strong ties between blood relatives mean that the family is a natural coalition in which people innately care for one another. A person's primary loyalty is likely to be to the family, rather than to an unrelated group, such as the church or state. Family loyalty and the acquisition of wealth and power by families may thus be seen as a threat to government who have passed laws in the past to limit the power of families. Incest laws, for example, that banned marriage between distant relatives, and laws on sex (for example limits on the days on which a person could have sex) and marriage prevented the accumulation of wealth in families that could have threatened the establishment (Betzig 1995, Thornhill 1991). Policies and laws may be ineffectual or indeed induce perverse effects if they conflict with familial imperatives.

Some writers have argued for policies based on the insights of evolutionary biology (see for example Buss 2000b, Gray 2000) Ridley (1993) has argued that the greater competitiveness of men justifies affirmative action for women in the workplace to redress human nature. Similarly, Tiger (1970) argued for changes to the workplace, such as accommodating women's child-rearing absences, to ensure the economic equality of women. Rossi (1997) argues that strategies to reduce teen pregnancy and sole parenthood, especially among the poor and disadvantaged, should be grounded in an evolutionary understanding of human sexuality. Thornhill and Palmer (2000) suggest that education about the adaptive underpinnings of rape can help both men and women to prevent it.

Chisholm (1999)argues that policies should reduce inequality—since inequality is a major source of risk and uncertainty that leads to pathology. Unemployment that creates low-status, unmarriageable, men can lead to family dissolution, absent fathers and sole mothers. The social consequences of unemployment on the marriageability of men need to be considered in policy. Wilkinson (2000) advocates tackling inequality and hierarchy to address population health problems that arise from social status.

The evolutionary approach has a number of implications for policy (Singer 1999). First, human nature is ultimately driven by genetic imperatives, and although it can be channelled it is not infinitely malleable. Secondly, although some behaviours can be explained, they are not necessarily desirable. Thirdly, people have a tendency to strive to enhance their wealth, status and power and to advance their own interests and that of their kin. Finally, the task for the policy-maker is to work out what can be altered in order to achieve the desired ends (Cronin and Curry 2000).

8 Implications for policy

8.1 The contribution of different disciplines

The disciplines described in this paper provide a diversity of views on human nature and the structure and behaviour of families. Since each discipline rests on very different assumptions about human nature, and uses different explanatory models, each has different implications for government in the design and implementation of policies that involve individuals and affect families. Such policies of course, are not necessarily those directed only at families, but also include others that affect families and where individual decisions involve, affect or are affected by other family members.

There are some overlaps. Evolutionary biology encompasses evolutionary psychology; and there are links between sociology and anthropology. Evolutionary biology resembles economics in its methodology (Hirshleifer 1977). Both try to explain complex phenomena from a few basic principles, and use a scientific methodology of hypothesis testing. Both disciplines use notions such as optimisation, cost-benefit analysis, investment and game theory and make predictions about how people behave. Although mainstream economics has not yet incorporated evolutionary insights, evolution is being incorporated into some aspects of economics (Burnham 1997). There are also overlaps and complementarities in explanations of assortative mating, altruism, and non-marital childbearing between disciplines.

Of the disciplines discussed, economics seems to be most commonly used to analyse policy, perhaps because of its emphasis on defining the problem to be addressed, and predicting the nature, size and distribution of policy effects (for example the incentives it produces; its likely effectiveness and the costs and benefits). Other disciplines are also used to analyse policy. Evolutionary biology, for example, has informed "Third Way" policies in the United Kingdom (see for example Singer 1999). Feminist analysis is often used to analyse policies that have implications for women.

Table 5 summarises key ideas on aspects of family behaviour from different disciplines.

History documents the changes in families over time—how they have been defined and structured, and how the roles of individuals have changed. It serves as a reminder that families are not static, but change in response to changing circumstances. At the same time, however, it illustrates the path-dependent nature of families—families today are influenced by the way families have been structured and have functioned in the past.

Demography illustrates the changing nature of the family through trends in cohabitation and marriage and divorce, births and deaths and work patterns. The changing family suggests that the family can change both in structure and function as circumstances change. Anthropology is an important source of information on the nature and structure of families, and of how individuals fit within family systems. Most research has been undertaken on non-Western societies and illustrates the considerable variation in family systems across cultures. It also underscores the centrality of the family across cultures, suggesting that it fulfils important functions and that there are thus are strong drives for family formation. It also shows that family systems change over time, although some dimensions of family systems remain fairly intact.

Table 5 –	Models o	f the Family
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	Anthropology	Sociology	Psychology	Economics	Biology
Model	 No unified theory. Emphasises differences Contrary to perceptions, does not see humans as unthinking slaves of culture Most research undertaken on non-Western societies 	 Structural functionalism – family socialises children, and acts to stabilise adult personality Symbolic interactionism – how families create and re-create themselves through interaction and ritual Marxist – family reproduces class, arose as a result of inheritance Feminist – family as site of patriarchal oppression 	 Study of human nature and experience. Focuses on the individual. Social psychology: people construct their experience of reality. Social influences are pervasive. Developmental psychology: individual cognitive, emotional, social development from birth to death. Focus on childhood as a formative stage. 	 Rational actors Maximising behaviour Incentives Opportunity cost Comparative advantage Contract 	 Evolution Natural selection and adaptation Relative investment in offspring by men and women drives differences in their motivations and behaviour
Formation	 Norms on family formation, family structure, property transmission, kin terms, marriage family structure co- evolve as "family systems". Family systems can vary enormously across cultures and periods 	Affective individualism – love and personal fulfilment as the foundations of marriage	 To fulfil strong innate drives (attachment, intimacy, acceptance, sexual, reproductive, social power, conformity with social norms). Also a learned behaviour: importance of role models and conditioning. 	 Specialisation Insurance Marriage-specific investments Mate selection through the "marriage market" Assortative mating Search costs Imperfect information 	Male competitionFemale choiceInvestment in children

	Anthropology	Sociology	Psychology	Economics	Biology
Structure	Family systems vary enormously	 Post-modern family Increasing variation in family forms, with no new modal category replacing the male- breadwinner nuclear model 	How a family functions is far more important than structure to individual well-being & child development.	 Mostly discusses monogamy Polygyny can benefit married women by raising demand for wives "Serial polygyny" Allocation of resources – bargaining models and interdependent utility functions 	 Monogamy Women prefer older, high status men Men prefer young, nubile women Incentives for infidelity – females get "better" children males get more children Young female syndrome for sole motherhood
Behaviour	 The extent to which responsibilities for childcare are concentrated in the hands of parents varies across cultures. Gender roles more variable than is often assumed 	• Sex roles : psychoanalytic feminism – gender arises from the fact that it is women who mother	• Critical factors for individual well-being and child development: secure attachment, autonomy, hierarchy, flexibility, authoritative parenting style, low levels of family stress (from external or internal sources).	 Sex roles - agnostic in principle about comparative advantage Fertility – quantity vs quality 	 Kin altruism Differences in sex roles persistent and universal Men and women have different agendas, not different abilities Conflicts of interest Infidelity
Dissolution	 Dissolution tied up with family systems – eg divorce in Islamic Southeast Asia Asia. 	 Rise in divorce rates a result of affective individualism – increasing attention to personal fulfilment Unintended effects of divorce and divorce legislation on women and children 	 The critical factors are violation of an individual's expectations & needs, chronic unresolved conflict, and absence of commitment (infidelity is a symptom). Negative impacts on child development are a result of poor family functioning (not separation per se). 	 Women suffer greater costs from divorce, but gap is reducing Legal environment matters for incentives No fault divorce means marriage doesn't function as a contract - divorce has increased. Theory says women more to gain from marriage BUT women file for divorce more 	 Incentives for men to divorc as wives age and fertility declines Incentives for women to divorce low-status men

	Anthropology	Sociology	Psychology	Economics	Biology
Pathology	• Some family pathologies such as the "missing females" of East and South Asia, and tensions between various categories of kin, are linked to family systems	 Family is a powerful combination of emotional intensity and personal intimacy Radical feminists – symbolic violence against women leads directly to actual physical and mental violence 	 Negative impacts of child abuse on emotional and cognitive development may be long-lasting. Inter-generational cycles of child maltreatment 	 Opportunism a consequence of unenforceability of the marriage contract Exploitation of quasi rents within marriage – more spousal and child abuse 	 Infanticide by mothers in uncertain environments Male jealousy leads to domestic violence Homicide uncommon among blood relatives Child abuse more common by step-parents
Change	 Family systems change over time – though underlying principles can be surprisingly resilient 	 Increasing variation in family forms 	 More step-families: adjustment problems for children are common. Consistent and effective parenting, absence of conflict between biological parents, and accommodation of former family traditions are the key to good outcomes. 	Increase in earning power of women	 Human nature determined by evolution but behaviour it generates is varied and adaptable
Policy	 Anthropologists emphasise the unintended consequences of policies – how people resist or reinterpret policies. 	 The family increasingly under the purview of the State State supports a particular conception of the family The "privacy" of the family is illusory 	 What happens within families is critical to outcomes. The state's ability to influence family functioning is constrained. Private domain, state has very limited windows of opportunity to detect problems and intervene, lack of knowledge about what makes a difference, some interventions (eg, removing children) may have perverse impacts. 	 Informal social norms matter more! Beware perverse incentives 	 Families are a natural coalition of common genetic interests Understanding genetic predispositions can help shape appropriate policies Laws can help to channel behaviour

Sociology does not have a central, established core of belief. Its principal theories are structural functionalism in which the family is seen to exist to socialise children to stabilise adult personality, and symbolic interactionism, which describes how families create and re-create themselves through interaction and ritual. Marxist sociology focuses on the family as the mechanism for reproducing class, while feminist sociology views the family as the site of patriarchal oppression. In general, sociologists are inclined to view the environment as more important than heredity in influencing gender differences. Sociologists tend to view changes in the family as driven, in part, by technical and economic change. While the structure of the family has changed, it has retained its core functions of reproduction and bringing up children. A central question for sociology however, is how well different types of family structure fulfil these core functions.

In contrast to the social perspective of anthropology and sociology, psychology, like economics, focuses on the individual. At its core is the study of human nature. Social psychology examines the social influences on individuals and how they behave, while developmental psychology focuses on childhood as a formative stage.

The economic view reinforces the structural functionalism of sociology, suggesting that the forces and incentives shaping the drive for family formation have changed over time, resulting in changes to family structure. The market now handles many functions, such as education, insurance and signalling, better than the family. The increasing human capital of women in Western economies has led to their greater labour force participation and has resulted in a drop in fertility and increased divorce.

In analysing policy, economics emphasises that second-round effects (ie, beyond the immediate effects intended), perverse incentives and unintended consequences. Well-intentioned policy might not only be thwarted by the individuals' responses, but it might also harm the very people it was designed to help. Government policies, such as female education, which are not directed at families, may yet have significant impacts on the family. Other policies directed at one aspect of the family (for example supporting children in single parent families) may have unintended consequences in another aspect of the family (for example discouraging father involvement with children). Some government policies, for example "baby bonuses" to increase fertility, may be ineffectual if they run counter to other forces such as the increasing labour force participation of women.

Evolutionary biology explains human behaviour from a genetic perspective in which reproductive success is the fundamental driver. The differences in the investment of men and women in reproduction are seen as driving differences in their motivation and behaviour. In contrast to anthropology, psychology and sociology, which tend to favour nurture over nature as explaining behaviour, evolutionary biology suggests that nature shapes potentialities, but not outcomes (Pinker 2002).

There is growing recognition that both genes and the environment are important—the issue is not whether nature or nurture is more important, but how they interact. Genes do not determine behaviour; rather they are conditioned by and react to the environment (Ridley 2003). Understanding of how different environments and events affect and in turn are affected by genes can be important in policymaking.

8.2 Applying theories of the family to policy issues

This section illustrates some of the strengths of the different approaches in analysing policy issues. Theories of the family can shed light not only on policies that are obviously

related to the family, but also on policies that are not, *prima facie* about the family. For example, policy questions about issues as diverse as banning the smacking of children, controlling what children watch on television, eliminating racism and discrimination, tackling corruption and controlling binge-drinking by teenagers can all be addressed from a family perspective. A few such questions are raised here as examples of how different theories of the family can help in analysing policy.

The introduction of equal employment opportunities for women, even coupled with significant investment in their human capital and their increasing labour force participation has not resulted in the elimination of differences between men and women in employment. Women predominate in certain occupations such as teaching and nursing, and men predominate in others such as engineering. At the same time, women typically earn less than men (for a summary of the literature see Jacobsen 1998). The feminist explanation for these differences centres on the male patriarchy that systematically discriminates against women. The policy measures suggested to overcome such discrimination include comparable worth or pay equity policies that seek to equivalise the value of work done by men and women.

The evolutionary biology perspective on the other hand suggests that men and women have profoundly different motivations regarding work that lead them to select different types of work and ways of working. It suggests that policies that view men and women as identical in their preferences and behaviours is not likely to be effective. Rather, policy should recognise the basic conflict of reproductive interest between men and women, that men and women are different and it should accommodate the particular needs of women (for example by making workplaces more family-friendly) (Browne 1995, Gray 2000). Evolutionary biology could also be used to suggest that policies need to compensate for the advantages conferred on men by their biologically programmed competitive behaviour.

The economic approach centres on the costs and benefits of household decisions. The preferences and endowments of individuals are taken as given, but may differ between men and women. The comparative advantage of spouses will lead to household specialisation. Women will take the primary role in child-rearing, and will seek work that complements this role. They will also make consistent decisions about investing in human capital. The rational behaviour of households can thus lead to work and pay differences between men and women. The economic approach concludes that if differences in wages between men and women are due to differences in productivity or tastes, then no policy intervention is required. Indeed, pay equity policies can be both costly and ineffectual. On the other hand, if the gender pay gap is due to other factors such as discrimination or a lack of female human capital, then other policies may be useful, such as enforcement of anti-discrimination laws or more education for girls.

A central area of social policy concern in many countries is the rise in the number of sole parents, especially those headed by women. Sole motherhood is often associated with poverty and poor outcomes for the mothers themselves and for their children. Many sole mothers however fare well and their children grow up without negative effects. The psychological and sociological literature suggests that sole motherhood itself is not the underlying cause, but that other unobserved factors may be the underlying cause both of sole motherhood and adverse outcomes. Economic explanations of changes in family structure centre on the rational responses of individuals to the incentives they face. Increases in female human capital and labour force participation and the availability of welfare support can alter the costs and benefits of marriage, making sole motherhood a rational choice for some people. Economic policy prescriptions typically focus on trying to achieve a balance between the positive effects of the welfare system (such as relieving poverty and improving well-being through increased income) and its negative effects (such as dependency, poor incentives to work, low income and single parent families) (for an assessment of US welfare reform see Blank 2002). The evolutionary biology literature suggests that it can be rational for young women to bear and rear children without a spouse, when environments are uncertain and risky and where young men do not have adequate resources to support them and their children.

Youth unemployment, particularly among males, is of concern in many countries. Young unemployed men typically have poor educational qualifications and are often involved in antisocial and risk-taking activities, such as crime and violence. The psychological and sociological literatures emphasise the individual, family and social factors that lead to educational under-attainment and antisocial behaviour. Policies generally focus on early identification and interventions such as parenting programmes for parents of young children, and therapeutic programmes such as Multisystemic Therapy for young people (US Surgeon General 2001). The economic approach typically analyses the costs and benefits of different educational programmes and institutional arrangements (such as the funding and regulation of schools) in improving educational achievement levels (see for example Witte 2000). Another key feature is the analysis of the cost-effectiveness of the range of policies and programmes to encourage young people into employment (Martin and Grubb 2001). The economic explanation of youth unemployment emphasises the effects of other sources of income (for example from crime or welfare) relative to income from legitimate work for individuals with few skills and no experience. The "young male syndrome" is a central feature of the evolutionary biology approach, suggesting that the antisocial behaviours often associated with young unemployed men are adaptive responses to precarious and uncertain environments. A reduction in inequality is seen as a potential solution. A better understanding of how winners become winners and losers become losers within a particular setting can also help in devising policies to change the distribution of outcomes (Gray 2000).

8.3 Lessons for policy

A key feature of the literatures on the family discussed in this paper is the centrality of the family as a core unit of society. Families occur across cultures and through time. Definitions of the family vary. The evolutionary biology literature explains the centrality of the kin relationship as part of the drive to perpetuate one's genes. People are biologically primed to care for their relatives—the closer the relationship, the greater the care. This drive underlies wider kin groupings, such as clans or tribes, and explains why non-kin groups often use relationship terms like "brotherhood" to bind members together. It also explains people's need for identity and knowing who they are. The centrality of kin relationships may also explain social cohesion in small, homogeneous societies such as lceland.

The centrality of the family suggests that people will tend to favour kin over non-kin—the fundamental basis of nepotism. While there are some advantages in favouring kin (such as reduced transaction costs), it can also foster corruption that is not socially desirable (Bellow 2003). Overcoming this tendency requires strong institutions characterised by transparency and accountability (Rose Ackerman 1999).

Relationships between non-kin may not provide the same level as care as between kin. Step-children, for example are at greater risk than natural children of abuse by a parent, and family homicides typically involve the killing someone who is not a blood relative. Understanding the unacknowledged biological drivers for these behaviours can potentially assist in devising appropriate policies and in understanding why some policies are likely to be ineffective. For example, a parenting course for step-parents may be less effective than understanding why they feel differently about their natural and step-children (Cronin and Curry 2000). Other relationships between non-kin may be more successful. For example, the market has taken over many of the functions of the family that involved caring for kin such as education and food production. Contracts can be enforced, for example if the service is not up to standard and do not rely on the voluntary assumption of the role of kin.

Another key characteristic of the family is both its tenacity and changeability over time. While the structure of the family has changed, and it has lost some of the functions it had in the past, it has retained certain features, such as the care of children. Exogenous factors, such as technical and economic change, play an important role in the changes in both the structure and functions of families.

The malleability yet resilience of the family presents something of a puzzle for policy makers in determining which features of the family are responsive to policy and which are resistant. The evolutionary biology literature may provide some clues to identifying the core feature of a family. It suggests that the key relationship is between a mother and her offspring. While a mother knows her offspring are hers, a father may not be sure, and therefore may be less committed to a family relationship. This suggests that perhaps the relationship between mother and child is less responsive to policy and other external factors than the father's relationship with her and her child.

A further feature of the family is its variability. While most marriages are monogamous, most societies are polygamous. None of the disciplines discussed recommend a particular family structure. An important concern of the sociological and developmental psychology literature is determining how well different family structures fulfil their functions, especially in bringing up children. A key part of this enquiry is separating the effects of the family structure on children from other, unobserved factors. The evidence suggests that family structure, *per se*, does not necessarily affect child outcomes.

The flexibility of family structure has important implications for policy. It suggests that exogenous factors, such as technical change, are likely to shape families. Policies that affect the economic and social environment may also have effects on the structure of the family, in ways that are often unintended. For example, rising levels of education among women and increased labour force participation have affected decisions about fertility, marriage and divorce. Also, policies that are intended to foster certain types of family structure (an example might be encouraging marriage rather than cohabitation, or encouraging one-child families) might be ineffectual, especially when faced with economic and social forces acting in the opposite direction. Even in areas where the state has a clearly developed rationale for involvement, it is often highly constricted in its ability to influence the behaviour of individuals and families.

The pervasiveness of the family makes it crucial to devising policy. While much policy is aimed at individuals and individual responses, it does not necessarily take into account how the individual's role in the family affects those responses, the impact on the family or how other members of the family may respond. Understanding how and why individuals and families behave the way they do can help in designing effective policies. A persistent issue, for example, is the ineffectiveness of training programmes to get unemployed people into work. A particular barrier seems to be an "attitude problem" demonstrated by defiance and non-cooperation with authority. Examining the issue through the lens of psychology could help identifying the causes of antisocial behaviour, influence the effects

of families, peers, and the community, and in designing appropriate interventions and therapies. An evolutionary biology lens could help in identifying the underlying reason for the seeking the respect of peers and engaging in risky behaviour and how these behaviours could be changed.

Policymaking is typically undertaken under uncertainty. There is generally uncertainty about the "true state" of the world, for example the true nature and extent of problems. The optimal policy is a function of the "true state", but there is typically uncertainty about the optimal policy and its effects. There is also likely to be some uncertainty about the loss function—the "costs of being wrong". Sound theory and empirical evidence can help to provide better information that reduces the uncertainty. A multi-disciplinary approach can be useful in managing risk. A policy prescription that draws on a portfolio of disciplines and reflects an averaging of the different kinds of error of each is likely to show less variance in its outcome than one that relies on one single approach (Berg 2003).

9 Conclusion

Many disciplines have as a central core the study of the family. Some, like anthropology, rely on case studies that illuminate family systems in their huge variety. Others, like economics, rely on a simple model of human behaviour and apply it to household decisions. Some, like sociology, have a number of theories about the family, others, like economics and evolutionary biology, rely on a single central theory. Each discipline therefore brings a different perspective to the study of the family, with different insights about how and why families are formed, structured and dissolved; families and the individuals within them behave and undesirable or pathological behaviour occurs. They also have different views on the factors underlying changes in the family. These differences can lead to differing policy positions.

The different disciplinary perspectives on the family can lead to mutually incomprehensible arguments in policy discussions where analysts rely only on their own discipline. Domination of the analysis by one discipline is unlikely to lead to fully informed policy making. An approach that uses the insights of a range of different disciplines, drawing on the strengths of each is likely to provide a richer picture of human behaviour and the responses of individuals and families to policy interventions than one that relies on a single discipline (Wilson 1998).

All policy-making is uncertain. There is typically uncertainty about the nature of the problem to be addressed, its underlying causes, the range of available options and the likely effects. Making use of the viewpoints of different disciplines can mitigate some of this uncertainty. A diversified portfolio of approaches to policy issues can reduce the potential variance in policy outcomes associated with relying on a single discipline.

A multidisciplinary approach can help to understand the nature and causes of the particular problem that a policy seeks to address. This is typically the most difficult part of the policy process, as the manifestation of a problem is generally not the ultimate cause. For example, if a high rate of pregnancy among unmarried teenagers is seen as a problem, not only is it necessary to determine whether it is in fact a problem and for whom, but also to establish the underlying causes. An economic view, for example would seek to identify the full social and private costs and benefits of early pregnancy. This perspective could include, for example the direct and indirect costs of contraception social welfare receipt and the effects of early pregnancy on the acquisition of human capital and future employment and earnings. In contrast, a psychological approach would be likely to

focus on the psychological precursors (eg emotional needs) and consequences for the mother and the development effects on the child. It would also be likely to explore aspects of adolescent psychology, such as cognitive immaturity, and its effects on sexual activity.

A multi-disciplinary approach can also assist in devising policy options. All policy interventions rely on changing in behaviour, so different perspectives on human nature imply different types of policies. Teenagers for example are prone to risk-taking behaviour (such as driving fast) and show fewer or none of these behaviours as mature adults. An economic view might be that they simply have high discount rates or are risk-loving. It can also estimate the social and private costs of these behaviours, such as motor accidents. Developmental psychology might explain that the brains of teenagers have not yet developed in ways that can fully assess risk. Policy interventions, such as a system of graduated driver's licensing, that take into account the growing ability to assess risk are this likely to be more effective than those that simply assume an adult's capacity and responses.

A multidisciplinary approach can also be helpful in assessing whether policies will work. In particular, it can highlight the limits of policy in altering behaviour. For example, an evolutionary biology perspective on risk-taking among teenagers is likely to stress the "young male syndrome" and the need for young men to gain the esteem of their peers and win the attention of young women by taking risks. This suggests that risk-taking behaviour is inherent, likely to be resistant to policies that simply seek to reduce it and likely to be exhibited in other ways if policy is successful in reducing one type of risktaking.

It can also illustrate the unintended consequences, perverse incentives and second-round effects of policies. Looking beyond the immediate, or first-round policy effects to both predict and empirically evaluate the ultimate effects is a particular strength of economics. For example, some writers in the evolutionary biology literature have advocated "decreasing inequality" as a policy to overcome some undesirable behaviours, particularly those associated with the "young male syndrome", such as risk-taking. An economic perspective can show the unintended consequences of such policies. Using taxes and transfers to promote income equality for example, can create perverse incentives, inducing less work among taxpayers and welfare recipients alike, and may make welfare recipients and their families worse off by creating welfare dependency.

This paper has reviewed the principal features of the theory of the family for a number of important disciplines. The reviews are necessarily not comprehensive, but they do illustrate both the diversity and the commonality of theories about how the family is formed, structured and functions, and how individuals within it behave and are influenced by it.

Common themes across all the disciplines are that the existence of the family is common to all societies and cultures but that its form is very variable and has changed over time. The structure of the family has responded to changes in the external environment. It has lost certain functions and gained others. Yet certain core features remain, typically the relationship between blood relatives and in particular between parents and children. Family structures may therefore be affected both by the economic and social environment as well as policies directed specifically at the family. However, the nature and direction of the of the effects can be hard to predict, and the result may be unintended. Also, the ability of policies to influence the behaviour of individuals and families can be constrained if it acts counter to other influences.

A central theme across all the disciplines is the centrality of the family as a core unit of society. While definitions of the family vary, its core seems to be a blood relationship. People tend to favour kin over non-kin —"blood is thicker than water"—and will take the interests of other family members into account in their decisions. Policy measures that seek to influence behaviour need to consider not just individuals, but how families, make decisions.

References

- Ainsworth, Mary D Salter, Mary Curtis Blehar, Everett Bell Waters and S Wall (1978) Patterns of attachment: A psychological study of the strange situation. (Hillsdale, NJ: Erlbaum).
- Ainsworth, Mary D Salter and John Bowlby (1991) "An ethological approach to personality development." *American Psychologist* 46: 333-341.
- Alcock, John (2001) The triumph of sociobiology. (Oxford: Oxford University Press).
- Alexander, Lewis S (1995) "Technology, economic growth and employment: New research from the US department of commerce." in OECD ed *Employment and growth in the knowledge-based economy* (Paris: Organisation for Economic Cooperation and Development): 307-325.
- Allen, Douglas (2002) "The impact of legal reforms on marriage and divorce." in Antony Dnes and Robert Rowthorn ed *The law and economics of marriage and divorce* (Cambridge: Cambridge University Press): 191-211.
- Allen, Douglas W and Margaret Brinig (1998) "Sex, property rights, and divorce." *European Journal of Law and Economics* 5(3): 211-233.
- Alstrom, Carl (1961) "A study of inheritance of human intellignece." Acta Psychiatrica et Neurologica Scandinavica 36(2): 175-202.
- Amato, Paul R (2000) "The consequences of divorce for adults and children." *Journal of Marriage and Family* 62(4): 1269-1287.
- Amato, Paul R (2001) "Children of divorce in the 1990s: An update of the Amato and Keith (1991) meta-analysis." *Journal of Family Psychology* 15(3): 355-370.
- Amato, Paul R and Bruce Keith (1991) "Parental divorce and the well-being of children: A meta-analysis." *Psychological Bulletin* 110(1): 26-46.
- Ambert, Anne-Marie (2001) Families in the new millenium. (Boston: Allyn and Bacon).
- Anderson, Craig and Brad Bushman (2002) "Human aggression." *Annual Review of Psychology* 53: 27-51.
- Anderson, Michael (1995) Approaches to the history of the Western family, 1500-1914. (New York: Cambridge University Press).
- Arendell, Teresa (2000) "'Soccer moms' and the new care work." Berkeley, Center for Working Families, University of California Berkeley.
- Arendell, Terry (1995) Fathers and divorce. (Thousand Oaks: Sage Publications).
- Aronson, Elliot (1969) "The theory of cognitive dissonance: A current perspective." in Leonard Berkowitz ed *Advances in experimental social psychology* (New York: Academic Press): 2-34.
- Bailey, Lucy (1999) "Refracted selves? A study of changes in self-identity in the transition to motherhood." *Sociology and Social Research* 33(2): 335-352.
- Baker, Maureen, Jan Pryor and Ian Shirley (2000) "Lone parenthood and childhood outcomes. A review of the literature." Wellington, Ministry of Social Policy.
- Bandura, A (1973) *Aggression: A social learning analysis*. (Englewood Cliffs NJ: Prentice-Hall).
- Bandura, A and Emilio Ribes-Inesta (1976) *Analysis of delinquency and aggression*. (New Jersey: Lawrence Erlbaum Associates).
- Barrett, M (1988) *Women's oppression today: The Marxist/Feminist encounter*. (London: Verso).

Barrett, Michele and Mary McIntosh (1982) The anti-social family. (London: Verso).

- Bartley, WW and Friedrich A Hayek eds (1988) *The fatal conceit: The errors of socialism.* (Chicago: The University of Chicago Press).
- Baumrind, D (1991) "The influence of parenting style on adolescent competence and substance use." *Journal of Early Adolescence*, 11(1): 56-95.
- Becker, Gary S (1965) "A theory of the allocation of time." *Economic Journal* 75(299): 493-517.
- Becker, Gary S (1973) "A theory of marriage: Part I." *Journal of Political Economy* 81(4): 813-846.
- Becker, Gary S (1974) "A theory of marriage: Part II." *Journal of Political Economy* 82(2): S11-S26.
- Becker, Gary S (1985) "Human capital, effort, and the sexual division of labor." *Journal of Labor* 81(4): 813-846.
- Becker, Gary S (1991) A treatise on the family. (Cambridge, MA; London, UK: Harvard University Press).
- Becker, Gary S, Elisabeth M Landes and Robert T Michael (1977) "An economic analysis of marital instability." *Journal of Political Economy* 85(6): 1141-1187.
- Becker, Gary S and Kevin M Murphy (1988) "The family and the state." *Journal of Law* and *Economics* 31: 1-18.
- Becker, Gary S. and Nigel Tomes (1986) "Human capital and the rise and fall of families." *Journal of Labor Economics* 43(3/2): S1-S39.
- Belich, James (1996) Making peoples: A history of New Zealanders from polynesian settlement to the end of the nineteenth century. (Auckland: The Penguin Press).
- Bellow, Adam (2003) In praise of nepotism: A natural history. (USA: Doubleday).
- Belsky, Jay (1997) "Attachment, mating, and parenting: An evolutionary interpretation." *Human Nature* 8(4): 361-381.
- Bem, Sandra (1993) *The lenses of gender: Transforming the debate on sexual inequality.* (New Haven CT: Yale University Press).
- Bentovim, Orit Avishai (2002) "Family-friendly as a double edged sword: Lessons from the "lactation-friendly" workplace." Berkeley, Center for Working Families, University of California Berkeley.
- Berg, Nathan (2003) "Normative behavioral economics." *Journal of Socio-Economics* 32(4): 411-427.
- Berger, Peter L and Thomas Luckmann (1967) *The social construction of reality" A treatise in the Sociology of knowledge*. (London: Penguin Publishers).
- Bergstrom, Theodore C (1997) "A survey of theories of the family." in Mark R Rosenzweig and Oded Stark eds *Handbook of population and family economics* (Amsterdam: Elsevier Science): 21-79. http://www.econ.ucsb.edu/~tedb/Family/psfiles/famrev.pdf
- Bergstrom, Theodore C. and Mark Bagnoli (1993) "Courtship as a waiting game." *The Journal of Political Economy* 101(1): 185-202.
- Berk, Laura E (2001) *Development through the lifespan*. (Needham Heights MA: Allyn & Bacon).
- Berkowitz, Len (1989) "Frustration-aggression hypothesis: Examination and reformulation." *Psychological Bulletin* 106: 59-73.
- Berkowitz, Len (1990) "On the formation and regulation of anger and aggression: A cognitive-neoassociationistic analysis." *American Psychologist* 45: 494-503.

Betzig, Laura (1995) "Medieval monogamy." Journal of Family History 20(2): 181-216.

- Bilton, Tony, Kevin Bonnett, Pip Jones, Tony Lawson, David Skinner, Michelle Stanworth and Andrew Webster eds (1996) *Introductory Sociology*. (London: Macmillan).
- Blackwell, Debra L and Daniel T Lichter (2000) "Mate selection among married and cohabiting couples." *Journal of Family Issues* 21(3): 275-302.
- Blank, Rebecca M (2002) "Evaluating welfare reform in the United States." *Journal of Economic Literature* 40(4): 1105-1166.
- Blum, Linda (1999) At the breast: Ideologies of breastfeeding and motherhood in the contemporary United States. (Boston: Beacon Press).
- Blumer, Herbert (1969) *Symbolic interactionism: Perspective and method*. (Englewood Cliffs: Prentice-Hall).
- Booth, Alan and Paul R Amato (2001) "Parental pre-divorce relations and offspring postdivorce well-being." *Journal of Marriage and Family* 65: 197-212.
- Boswell, John (1994) Same-sex unions in premodern Europe. (New York: Villard Books).
- Botwin, MD, DM Buss and TK Shackelford (1997) "Personality and mate preferences: Five factors in mate selection and marital satisfaction." *Journal of Personality* 65(1): 107-136.
- Bowen, M (1985) Family therapy in clinical practice. (Northvale, NJ: Jason Aronson).
- Briere, John N and Diana M Elliott (1994) "Immediate and long-term impacts of child sexual abuse." *Future of Children* 4(2): 54-69. http://www.futureofchildren.org/usr_doc/vol4no2ART3%2Epdf
- Brinig, Margaret F and Douglas W Allen (2000) "'these boots are made for walking': Why most divorce filers are women." *American Law and Economics Review* 2(1): 126-169.
- Brinig, Margaret F and Steven M Crafton (1994) "Marriage and opportunism." *Journal of Legal Studies* 23(2): 869-894.
- Brown, Donald (1991) Human universals. (New York NY: McGraw Hill).
- Browne, Kingsley (1999) *Divided labours: An evolutionary view of women at work*. (New Haven CT: Yale University Press).
- Browne, Kingsley R (1995) "Sex and temperament in modern society: A darwinian view of the glass ceiling and the gender gap." *Arizona Law Review* 37(4): 971-1106.
- Browne, Kingsley R (2002) *Biology at work: Rethinking sexual equality*. (New Brunswick NJ: Rutgers University Press).
- Brownmiller, Susan (1975) *Against our will: Men, women and rape*. (New York NY: Fawcett Columbine).
- Burnham, Terence C (1997) "Essays on genetic evolution and economics." Doctoral thesis, Business Economics, Harvard University, Cambridge MA. http://dissertation.com/pdf-b/5856429b.pdf>
- Buss, David M (1994) *The evolution of desire: Strategies of human mating*. (New York NY: Basic Books).
- Buss, David M (1999) *Evolutionary psychology: The new science of the mind*. (Needham Heights MA: Allyn and Bacon).
- Buss, David M (2000a) *The dangerous passion: Why jealousy is as necessary as love and sex.* (London: Bloomsbury Publishing).
- Buss, David M (2000b) "The evolution of happiness." American Psychologist 55(1): 15-23.
- Buss, David M (2001) "Human nature and culture: An evolutionary psychological perspective." *Journal of Personality* 69(6): 955-978.

- Cabinet Office (1999) "Women's attitudes to combining paid work and family life." London, Cabinet Office.
- Campbell, Anne (1999) "Staying alive: Evolution, culture, and women's intrasexual aggression." *Behavioural Brain Science* 22: 203–252.
- Carrere, Sybil and John M Gottman (1999) "Predicting the future of marriages." in E M Hetherington ed *Coping with divorce, single parenting, and remarriage* (Mahwah, NJ: Erlbaum, Lawrence Associates, Incorporated): 3-22.
- Celani, DP (1994) The illusion of love: Why the battered woman returns to her abuser. (New York: Columbia University Press).
- Chao, RK (1994) "Beyond parental control and authoritarian parenting style: Understanding chinese parenting through the cultural notion of training." *Child Development* 65(4): 1111-1119.
- Chisholm, James S (1999) *Death, hope and sex: Steps to an evolutionary ecology of mind and morality.* (Cambridge: Cambridge University Press).
- Chodorow, Nancy (1978) The reproduction of mothering: Psychoanalysis and the Sociology of gender. (Berkeley: University of California Press).
- Chodorow, Nancy (1989) *Feminism and psychoanalytic theory*. (New Haven: Yale University Press).
- Chomsky, Noam (1959) "A review of bf skinner's verbal behavior." *Language* 35(1): 26-58. ">http://cogprints.ecs.soton.ac.uk/archive/00001148/>
- Cohen, Lloyd (1987) "Marriage, divorce, and quasi rents; or, "I gave him the best years of my life."" *Journal of Legal Studies* 26: 267-303.
- Cohen, Lloyd ed (2002) *Marriage: The long-term contract*. (Cambridge: Cambridge University Press).
- Coontz, Stephanie (1992) *The way we never were: American families and the nostalgia trap.* (New York: HarperCollins Publishers, Inc).
- Corsaro, William A (1997) *The Sociology of childhood*. (Thousand Oaks: Pine Forge Press).
- Cowan, Carolyn Pape and Philip A. Cowan (2000) *When partners become parents: The big life change for couples.* (Mahwah NJ: Erlbaum).
- Crick, Nicki R and Kenneth A Dodge (1996) "Social-information-processing mechanisms in reactive and proactive aggression." *Child Development* 67: 993-1002.
- Croll, Elisabeth J (2002) "Fertility decline, family size and female discrimination: A study of reproductive management in east and South Asia." Asia-Pacific Population Journal 17(2): 11-38.
- Cronin, Helena and Oliver Curry (2000) "The evolved family." London, London School of Economics, Mimeo. http://www.lse.ac.uk/Depts/cpnss/darwin/family.htm
- CSR Incorporated (1997) "Understanding youth development: Promoting positive pathways of growth." Family and Youth Services Bureau; Administration on Children, Youth and Families; Administration for Children and Families; US Department of Health and Human Services. <http://www.ncfy.com/pubs/undyouth.htm>
- Daly, Martin and Margo Wilson (1988) Homicide. (Hawthorne NY: Aldine de Gruyter).
- Daly, Martin and Margo Wilson (1998) *The truth about cinderella: A darwinian view of parental love*. (London: Weindenfeld and Nicholson).
- Darling, Nancy (1999) "Parenting style and its correlates." *Parent News* July-August. ">http://npin.org/pnews/1999/pnew799/feat799.html#baumrind91>

- Darling, Nancy and Laurence Steinberg (1993) "Parenting style as context: An integrative model." *Psychological Bulletin* 113(3): 487-496.
- Dawkins, Richard (1989) The selfish gene. (Oxford: Oxford University Press).
- DeVault, Marjorie (1991) Feeding the family: The social organization of caring as gendered work. (Chicago: Chicago University Press).
- Dharmalingam, A, Ian Pool, Janet Sceats and Susan Singley (2000) "Changes in New Zealand family structures." Wellington, Ministry of Social Policy.
- Dickson, J, D Ball, J Edmeades, S Hanson and I Pool (1997) "Recent trends in reproduction and family structure." Hamilton, Population Studies Centre, University of Waikato.
- Dnes, Antony (2002) "Cohabitation and marriage." in Antony Dnes and Robert Rowthorn ed *The law and economics of marriage and divorce* (Cambridge: Cambridge University Press): 118-131.
- Dnes, Antony and Robert Rowthorn eds (2002) *The law and economics of marriage and divorce*. (Cambridge: Cambridge University Press).
- Draper, Patricia and Henry Harpending (1988) "A sociobiological perspective on the development of human reproductive strategies." in Kevin B MacDonald ed *Sociobiological perspectives on human development* (New York: Springer-Verlag): 340-372.
- Dyson, Tim and Mick Moore (1983) "On kinship structure, female autonomy, and demographic behavior in india." *Population and Development Review* 9(1): 35-60.
- Engels, Frederick (1884) *The origin of the family, private property and the state.* (Hottingen-Zurich).
- Fairbairn, W Ronald D (1952) *Psychoanalytic studies of the personality*. (London: Tavistock.).
- Fairbairn, W Ronald D (1953) *Psychoanalytic studies of the personality: Part I.* (London: Tavistock).
- Fergusson, David M (1998) "The Christchurch health and development study: An overview and some key findings." *Social Policy Journal of New Zealand* 10: 154-176.
- Festinger, Leon (1957) A theory of cognitive dissonance. (Stanford CA: Stanford University Press).
- Firth, Raymond William (1959) *Economics of the New Zealand Maori*. (Wellington: Government Publisher).
- Firth, Raymond William, Jane Hubert and Anthony Forge (1969) *Families and their relatives: Kinship in a middle-class sector of London: An anthropological study.* (London: Routledge and Kegan Paul).
- Foucault, Michel (1990) The history of sexuality. (New York: Random House).
- Freud, Sigmund (1914) *On Narcissism*. (London: The Hogart Press and the Institute of Psychoanalysis).
- Gangestad, Steven W and Jeffry A Simpson (2000) "The evolution of human mating: Trade-offs and strategic pluralism." *Behavioral and Brain Sciences* 23(4).
- Garey, Anita (1999) *Weaving work and motherhood*. (Philadelphia: Temple University Press).
- Gaulin, Steven and Alice Schlegel (1980) "Paternal confidence and investment: A crosscultural test of a sociobiological hypothesis." *Ethology and Sociobiology* 1: 301-309.

- Geertz, Clifford (1973) The interpretation of cultures: Selected essays. (New York: Basic Books).
- Geertz, Clifford (1984) "Anti anti-relativism." American Anthropologist 86: 263-278.
- Geronimus, Arlene (1997) "Teenage childbearing and personal responsibility: An alternative view." *Political Science Quarterly* 112(3): 405-430.
- Giddens, Anthony (1991) *Modernity and self-identity*. (Cambridge: Polity Press).
- Giddens, Anthony (1992) The transformation of intimacy. (Cambridge: Polity Press).
- Giddens, Anthony (1997) Sociology. (Cambridge: Polity Press).
- Gillis, John (1985) For better, for worse: British marriages, 1600 to the present. (Oxford: Oxford University Press).
- Glenn, Evelyn Nakano, Grace Change and Linda Rennie Forcey eds (1994) *Mothering: Ideology, expereince and agency.* (New Haven: Yale University Press).
- Glucksmann, Miriam (2000) Cottons and casuals: The gendered organization of labour in time and space. (Durham: British Sociological Association).
- Gottman, John M (1993a) "The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of five types of couples." *Journal of Consulting and Clinical Psychology* 61(1): 6-15.
- Gottman, John M (1993b) "A theory of marital dissolution and stability." *Journal of Family Psychology* 7(1): 57-75.
- Gottman, John M and Lowell K Krokoff (1989) "Marital intertaction and satisfaction: A longitudinal view." *Journal of Consulting and Clinical Psychology* 57(1): 47-52.
- Graham, Elspeth, Peggy Teo, Brenda SA Yeoh and Susan Levy (2002) "Reproducting the asian family across the generations: "tradition", gender and expectations in singapore." *Asia-Pacific Population Journal* 17(2): 61-86.
- Gray, J Patrick (2000) "Twenty years of evolutionary biology and human social behaviour: Where are we now?" in Lee Cronk, Napoleon Chagnon and William Irons eds *Adaptation and human behavior: An anthropological perspective* (New York NY: Aldine de Gruyter): 475-495.
- Greenhalgh, Susan (1993) "The peasantization of the one-child policy in shaanxi." in Deborah Davis and Stevan Harrell eds *Chinese families in the post-Mao era* (Berkeley: University of California Press).
- Greenhalgh, Susan (1995) *Situating fertility: Anthropology and demographic inquiry.* (Cambridge: Cambridge University Press).
- Harris, Judith Rich (1995) "Where is the child's environment? A group socialization theory of development." *Psychological Review* 102(3): 458-489.
- Hartmann, Heidi (1981) "The family as locus of gender, class, and political struggle: The example of housework." *Signs* 6(3): 143-169.
- Hartung, John (1982) "Polygyny and inheritance of wealth." *Current Anthropology* 23: 1-12.
- Haveman, Robert and Barbara Wolfe (1993) "Children's prospects and children's policy." Journal of Economic Perspectives 7(4): 153-174.
- Hawkes, Kristen and Rebecca Bliege Bird (2002) "Showing off, handicap signaling, and the evolution of men's work." *Evolutionary Anthropology* 11: 58-67.
- Hazan, Cindy and Philip R Shaver (1987) "Romantic love conceptualized as an attachment process." *Journal of Personality and Social Psychology* 52: 511-524.
- Hider, P (1998) "Youth suicide prevention by primary healthcare professionals A critical appraisal of the literature." Christchurch, New Zealand Health Technology

Assessment, Christchurch School of Medicine, NZHTA Report No 4. http://nzhta.chmeds.ac.nz/nzhtainfo/nzhta4.pdf

- Hirshleifer, Jack (1977) "Economics from a biological viewpoint." Los Angeles CA, UCLA Department of Economics, Working Paper No 87. http://www.econ.ucla.edu/workingpapers/wp087.pdf
- Hobart, Charles (1991) "Conflict in remarriages." *Journal of Divorce and Remarriage* 15(3/4): 69-86.
- Hochschild, Arlie and Anne Machung (1989) *The second shift: Working parents and the revolution at home*. (New York: Viking).
- Hoge, Robert D., D.A. Andrews and D. Robinson (1990) "Patterns of child and parenting problems within six family types." *Canadian Journal of Behavioural Science* 22(2): 99-109.
- Holmwood, John (2002) "Postcolonial perspectives on modern social theory." Brighton, University of Sussex.
- Hrdy, Sarah Blaffer (1999) *The woman that never evolved: With a new preface and bibliographical updates.* (Cambridge MA: Harvard University Press).
- Hrdy, Sarah Blaffer (2000) *Mother nature: A history of mothers, infants, and natural selection.* (London: Vintage).
- Irons, William and Lee Cronk (2000) "Two decades of a new paradigm." in Lee Cronk, Napoleon Chagnon and William Irons eds *Adaptation and human behavior: An anthropological perspective* (New York NY: Aldine de Gruyter): 2-26.
- Jacobsen, Joyce (1998) The economics of gender. (Malden MA: Blackwell).
- Jacobsen, Veronica, Nick Mays, Ron Crawford, Barbara Annesley, Paul Christoffel, Grant Johnston and Sid Durbin (2002) "Investing in well-being: An analytical framework." Wellington, New Zealand Treasury, Working Paper No 02/23. http://www.treasury.govt.nz/workingpapers/2002/02-23.asp
- Jagger, Alison and Paula SRothenberg (1993) *Feminist frameworks*. (New York: McGraw-Hill).
- Jagger, Gill and Caroline Wright (1999) *Changing family values : Feminist perspectives*. (London and New York: Routledge).
- James, Allison and Alan Prout (1997) *Constructing and reconstructing childhood: Contemporary issues in the sociological study of childhood.* (London: Falmer Press).
- Jary, David and Julia Jary (1991) *The harper collins dictionary of Sociology*. (New York: HarperCollins).
- Jenkins, Jenny and Daniel Keating (1998) "Risk and resilience in six and ten-year old children." Hull, Applied Research Branch, Strategic Policy, Human Resources Development Canada, Report No W-98-23E. http://www.hrdcdrhc.gc.ca/arb/publications/research/1999docs/w-98-23e.pdf
- Jones, Gavin W (1997) "Modernization and divorce: Contrasting trends in islamic southeast asia and the West." *Population and Development Review* 23(1): 95-113.
- Kaplan, Elaine Bell (1999) "The meaning of food to kids in working families." Center for Working Families, Berkeley.
- Kaplan, Elaine Bell (2000) "Using food as a metaphor for care: Middle-school kids talk about family, school, and class relationships." *Journal of Contemporary Ethnography* 29(4): 474-509.
- Kelley, BarbaraTatem, Terence P Thornberry and Carolyn A Smith (1997) "In the wake of childhood maltreatment." Rockville MD, US Department of Justice, Office of

Justice Programs, Office of Juvenile Justice and Delinquency Prevention, Juvenile Justice Bulletin. http://www.ncjrs.org/pdffiles1/165257.pdf>

- Kernberg, Otto F (1976) *Object relations theory and clinical psychoanalysis*. (New York: Aronson).
- Kerr, Michael E (1988) "Chronic anxiety and defining a self: An introduction to murray bowen's theory of human emotional functioning." *Atlantic Monthly* September: 35-58.
- Kerr, Michael E and Murray Bowen (1988) *Family evaluation: An approach based on Bowen theory*. (New York: WW Norton & Company).
- Keyes, Charles F (1975) "Kin groups in a thai-lao community." in G William Skinner and A Thomas Kirsch eds Change and persistance in thai society: Essays in honour of *lauriston sharp* (Ithaca: Cornell University Press).
- Klasen, Stephan and Claudia Wink (2002) "A turning point in gender bias in mortality? An update on the number of missing women." *Population and Development Review* 28(2): 285-312.
- Klein, Melanie (1952) "The origins of transference." *International Journal of Psychoanalysis* 33: 433-438.
- Kohut, H ed (1985) Self psychology and the humanities: Reflections on a new psychoanalytic approach. (New York & London: WW Norton).
- Laing, Ronnie D and Aaron Esterson (1982) *Sanity, madness and the family.* (London: Verso).
- Laland, Kevin N and Gillian Brown (2002) Sense and nonsense: Evolutionary perspectives on human behaviour. (Oxford: Oxford University Press).
- Landsberg, Steven (1997) Fair play: What your child can teach you about economics, values, and the meaning of life. (New York NY: Free Press).
- Landy, Sarah and Kwok Kwan Tam (1998) "Understanding the contribution of multiple risk factors on child development at various ages." Hull, Applied Research Branch, Strategic Policy, Human Resources Development Canada, Report No W-98-22E. http://www.hrdc-drhc.gc.ca/arb/publications/research/w-98-22e.pdf>
- Larsen, Randall J. and David M. Buss (2002) *Personality psychology: Domains of knowledge about human nature*. (New York: McGraw-Hill).
- Laslett, P (2000) *The world we have lost further explored*. (London: Cambridge University Press).
- Laslett, Peter (1971) *Family life and illicit love in earlier generations*. (Cambridge: Cambridge University Press).
- Laslett, Peter and Richard Wall eds (1972) *Household and family in past time*. (London: Cambridge University Press).
- Lazear, Edward (2000) "Economic imperialism." *Quarterly Journal of Economics* 115(1): 99-1461.
- Leacock, Eleanor (1978) "Women's status in egalitarian society: Implications for social evolution." *Current Anthropology* 19(2): 247-275.
- Lee, Ronald D and John B Casterline (1996) "Introduction." in John B Casterline, Ronald D Lee and Karen A Foote eds *Fertility in the United States: New patterns, new theories* (New York: The Population Council).
- Little, Daniel (1991) "Rational choice models and asian studies." *Journal of Asian Studies* 50: 35-52.
- Lundberg, Shelly and Robert A Pollak (1996) "Bargaining and distribution in marriage." Journal of Economic Perspectives 10(4): 139-158.

- Lundberg, Shelly, Robert Pollak, and Terence Wales (1997) "Do husbands and wives pool their resources? Evidence from the UK child benefit." *Journal of Human Resources* 32(3): 463-480.
- Maccoby, Eleanor E and JA Martin (1983) "Socialization in the context of the family: Parent-child interaction." in PH Mussen and EM Hetherington eds *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (New York: Wiley): 1-101.
- MacDermid, Shelley M, TL Huston and Susan M McHale (1990) "Changes in marriage associated with the transition to parenthood: Individual differences as a function of sex-role attitudes and changes in the division of household labor." *Journal of Marriage and the Family* 52: 475-486.
- MacDonald, Kevin B (1992) "Warmth as a developmental construct: An evolutionary analysis." *Child Development* 63: 753–773.
- Martin, John P and David Grubb (2001) "What works and for whom: A review of OECD countries' experiences with active labour market policies." Uppsala, Institute for Labour Market Policy Evaluation, Working Paper No 2001:14. http://www.ifau.se/swe/pdf2001/wp01-14.pdf
- Masten, Ann S and J Douglas Coatsworth (1998) "The development of competence in favorable and unfavorable environments: Lessons from research on successful children." *American Psychologicst* 53(2): 205-220.
- McClure, Margaret (1998) A civilised community: A history of social security in New Zealand, 1898-1998. (Auckland: Auckland University Press).
- McDonald, Peter (1992) "Convergence or compromise in historical family change?" in Elza Berquo and Peter Xenos eds *Family systems and cultural change* (Oxford: Clarendon Press).
- McLanahan, Sara S (1997) "Parent absence or poverty: Which matters more?" in Jeanne Brooks-Gunn ed *Consequences of growing up poor* (New York: Russell Sage Foundation): 35-48.
- McLennan, Gregor, Allanah Ryan and Paul Spoonley (2000) *Exploring society: Sociology* for New Zealand students. (Auckland: Pearson Education New Zealand Limited).
- Metge, Joan (1995) *New growth from old: The whanau in the modern world*. (Wellington: University of Victoria Press).
- Miller, Geoffrey F (2001) The mating mind: How sexual choice shaped the evolution of human nature. (London: Vintage).
- Miller, Nancy B, Philip A Cowan, Carolyn Pape Cowan and E Mavis Hetherington (1993) "Externalizing in preschoolers and early adolescents: A cross-study replication of a family model." *Developmental Psychology* 29(1): 3-18.
- Mills, C Wright (1976) The sociological imagination. (New York: Oxford University Press).
- Ministry of Women's Affairs (2002) "Next steps towards pay equity: A discussion document." Wellington, Ministry of Women's Affairs. http://www.mwa.govt.nz/pub/Next_Steps_Towards_Pay_Equity.doc
- Moffitt, Terrie, Avshalom Crespi, Jay Belsky and Phil Silva (1992) "Childhood experience and the onset of menarche: A test of the sociobiological model." *Child Development* 63: 47-58.
- Morgan, HJ and Phillip R Shaver (1999) "Attachment processes and commitment to romantic relationships." in JM Adams and WH Jones eds *Handbook of interpersonal commitment and relationship stability* (New York: Plenum): 109-124.
- Morris, Richard (2001) *The evolutionists: The struggle for darwin's soul.* (New York NY: WH Freeman & Co).

- Nechyba, Thomas, Patrick McEwan and Dina Older-Aguilar (1999) "The impact of family and community resources on student outcomes: An assessment of the international literature with implications for New Zealand." Wellington, Ministry of Education. http://www.minedu.govt.nz/index.cfm?id=5593&p=5871.5874 and http://www.minedu.govt.nz/web/downloadable/dl5593_v1/Family%20Community_t ables.PDF>
- Nicholson, Jan (1998) "Meeting the challenge second time round: Evaluation of behavioral intervention for preventing distress in stepfamilies." Kelvin Grove, School of Public Health, Queensland University of Technology, Paper presented at "Changing families, challenging futures" 6th Australian Institute of Family Studies Conference, Melbourne, 25-27 November. <http://www.aifs.gov.au/institute/afrc6papers/nicholson.html>
- North, Scott (2000) "Cultures of complaint in Japan and the United States." Berkeley, Center for Working Families, University of California Berkeley.
- Oakley, Anne (1974) The Sociology of housework. (Bath: The Pitman Press).
- Oddone, Elizabeth, Mark L Genuis and Claudio Violato (n.d.) "A meta-analysis of the published research on the effects of child sexual abuse." Calgary, National Foundation for Family Research and Education, Mimeo. <http://www.nffre.com/html/documents/child_abuse/analysis_of_the_published_re search_on_the_effects_of_child_sexual_abuse.html>
- Olsen, E and M Levesque (1978) "Towards a history of the New Zealand family." in Peggy Koopman-Boyden ed *Families in New Zealand society* (Wellington: Methuen).
- Olssen, Erik and Andree Levesque (1978) "History of the European family in New Zealand." in Peggy Koopman-Boyden ed *Families in NZ society* (Wellington: Metheun).
- Orbell, Margaret (1978) "The traditional Maori family." in Peggy Koopman-Boyden ed *Families in New Zealand society* (Wellington: Methuen).
- Outhwaite, William (2002) "'postmodernism' and society or postmodernism and 'society'." </br><www.sussex.ac.uk/Units/sociology/Themes.doc>
- Parsons, Talcott (1951) The social system. (New York: Free Press).
- Pinker, Steven (1998) How the mind works. (London: Penguin).
- Pinker, Steven (2002) *The blank slate: The modern denial of human nature*. (New York: Viking).
- Pollak, Robert (2002) "Gary Becker's contribution to family and household economics." Cambridge MA, National Bureau of Economic Research, Working Paper No 9232. http://papers.nber.org/papers/w9232>
- Pollak, Robert A (1985) "A transaction cost approach to families and households." *Journal* of *Economic Literature* 23(2): 581-608.
- Pool, Ian (1991) *Te iwi Maori: A New Zealand population past present and projected.* (Auckland: Auckland University Press).
- Posner, Richard (1998) "Family law and sex law." *Economic analysis of law* (New York: Aspen Law and Business): 155-178.
- Pryor, Jan and Barry Rodgers (1998) "Family dissolution: What about the children?" *Butterworths Family Law Journal* December: 310-315.
- Pryor, Jan and Bryan Rodgers (2001) *Children in changing families: Life after parental separation.* (Malden MA: Blackwell).
- Pugh, Allison (2002) "From "compensation" to "childhood wonder": Why parents buy." Berkeley, Center for Working Families, University of California Berkeley.

- Radcliffe-Brown, AR and Daryll Forde (1950) "Introduction." in AR Radcliffe-Brown and Daryll Forde eds *African systems of kinship and marriage* (London: Oxford University Press).
- Rich, Adrienne (1980) "Compulsory heterosexuality and lesbian existence." Signs: Journal of Women in Culture and Society 5(Sumr): 631-660.
- Ridley, Matt (1993) *The red queen: Sex and the evolution of human nature*. (London: Penguin).
- Ridley, Matt (2003) Nature via nurture. (London: Fourth Estate).
- Rodgers, Bryan and Jan Pryor (1998) *Divorce and separation: The outcomes for children.* (York: Joseph Rowntree Foundation).
- Rogers, Alan R (1994) "Evolution of time preference by natural selection." *American Economic Review* 84(3): 460-481.
- Rose Ackerman, Susan (1999) Corruption and government: Causes, consequences, and reform. (Cambridge: Cambridge University Press).
- Rossi, Alice S (1997) "The impact of family structure and social change." *Children and Youth Services Review* 19(5/6): 369-400. http://www.aei.org/sw/swrossi.htm
- Rowthorn, Robert (2002) "Marriage as a signal." in Antony Dnes and Robert Rowthorn ed *The law and economics of marriage and divorce* (Cambridge: Cambridge University Press): 132-156.
- Rubin, Lillian (1995) Families on the fault line: America's working class speaks about the family, the economy, race, and ethnicity. (New York: Harper Perennial).
- Sahlins, Marshall (1974) Stone age economics. (London: Routledge).
- Sawicka, Theresa and James Urry (1997) "Marriage and the attainment of adulthood in NZ." Wellington, Department of Anthropology, Victoria University of Wellington. http://www.vuw.ac.nz/yfp/index.html
- Schneider, David M (1980) American kinship: A cultural account. (Chicago: University of Chicago Press).
- Segerstråle, Ullica (2000) Defenders of the truth: The battle for science in the sociobiology debate and beyond. (Oxford: Oxford University Press).
- Sen, Amartya (1989) "Women's survival as a development problem." *Bulletin of the American Academy of Arts and Sciences* 43: 14-29.
- Sen, Amartya (1990) "More than 100 million women are missing." *The New York Review* of Books 37(20): 61-66.
- Shirley, Ian, Peggy Koopman-Boyden, Ian Pool and Susan St John (1997) "Family change and family policies: New Zealand." in Peter Flora, Sheila B Kamerman and Alfred J Kahn eds *Family change and family policies in the West*: Oxford University Press): 207-451.
- Shotak, Marj (1981) *Nisa: The life and words of a !Kung woman*. (Cambridge MA: Harvard University Press).
- Singer, Peter (1999) A darwinian left: Politics, evolution and cooperation. (London: Weidenfeld and Nicholson).
- Skinner, Burrhus F (1957) Verbal behaviour. (New York: Appleton-Century-Crofts).
- Smith, Eliot Rand Mackie, Diane M (2000a) *Social psychology*. (Philadelphia: Taylor & Francis).
- Smith, Eric Alden (2000b) "Three styles in the evolutionary analysis of human behaviour." in Lee Cronk, Napoleon Chagnon and William Irons eds Adaptation and human behavior: An anthropological perspective (New York NY: Aldine de Gruyter): 27-46.

- Smith, Ian (2002) "European divorce laws, divorce rates, and their consequences." in Antony Dnes and Robert Rowthorn ed *The law and economics of marriage and divorce* (Cambridge: Cambridge University Press): 212-229.
- Stacey, Judith (1991) Brave new families : Stories of domestic upheaval in late-twentiethcentury America. (USA: Basic Books).
- Stack, Carol (1974) All our kin: Strategies for survival in a black community. (New York: Harper & Row).
- Statistics New Zealand (1998a) "New Zealand now 65 plus (census 96)." Wellington, Statistics New Zealand.
- Statistics New Zealand (1998b) "New Zealand official yearbook 1998." Wellington, Statistics New Zealand.

Statistics New Zealand (2001a) "Around the clock: Findings from the New Zealand time use survey." Wellington, Statistics New Zealand. <http://www.stats.govt.nz/domino/external/pasfull/pasfull.nsf/web/Reference+Repo rts+Around+the+Clock+-+Findings+from+the+New+Zealand+Time+Use+Survey+1998-99?open>

- Statistics New Zealand (2001b) "Demographic trends (2001) reference report." <http://www.stats.govt.nz/domino/external/pasfull/pasfull.nsf/web/Reference+Reports+Demographic+Trends+2001?open>
- Statistics New Zealand (No date) "New Zealand census of population and dwellings volume 2: Ages, marital status, and fertility." Wellington, Statstics New Zealand.
- Steinberg, L, SM Dornbusch and BB Brown (1992) "Ethnic differences in adolescent achievement: An ecological perspective." *American Psychologist* 47(6): 723-729.
- Steinberg, Laurence, Nancy E Darling and Anne C Fletcher (1995) "Authoritative parenting and adolescent adjustment: An ecological journey." in Phyllis Moen, Glenn H Elder Jr and Kurt Luscher eds *Examining lives in context: Perspectives on the ecology of human development* (Washington, DC: American Psychological Assn): 423-466.
- Sterelny, Kim and Jon Turney eds (2001) *Dawkins vs gould: Survival of the fittest.* (Duxford: Totem Books).
- Stone, Lawrence (1977) *The family, sex and marriage in england, 1500-1800.* (London: Weidenfield and Nicolson).
- Stone, Lawrence (1990) *Road to divorce: England 1530-1987.* (New York: Oxford University Press).
- Sulloway, Frank (1995) "Birth order and evolutionary psychology: A meta-analytic overview." *Psychological Inquiry* 6: 75-80.
- Swidler, Ann (2001) *Talk of love: How culture matters*. (Chicago: University of Chicago Press).
- Symons, Donald (1980) "Précis of 'the evolution of human sexuality'." *Behavioural and Brain Sciences* 3: 171-214.
- Symons, Donald (1995) "Beauty is in the adaptation of the beholder: The evolutionary psychology of human female attractiveness." in Paul R Abramson and Steven D Pinkerton eds *Sexual nature, sexual culture* (Chicago: University of Chicago Press): 80-118.
- Ta Van Tai (1981) "The status of women in traditional vietnam: A comparison of the code of the le dynasty (1428-1788) with the chinese codes." *Journal of Asian Studies* 15(1): 97-145.
- Teicher, Martin H (2002) "Scars that won't heal: The neurobiology of child abuse." *Scientific American* 286(3): 68-75.

- Thomas, Duncan (1990) "Intra-household resource allocation: An inferential approach." Journal of Human Resources 25(4): 635-664.
- Thomson, David (1996) *Selfish generations? How welfare states grow old.* (Cambridge: White Horse Press).
- Thomson, David (1998) A world without welfare: New Zealand's colonial experiment. (Auckland: Auckland University Press).
- Thorne, Barrie (1992) "Feminism and the family: Two decades of thought." in Barrie Thorne and Marilyn Yalom eds *Rethinking the family: Some Feminist questions* (Ann Arbor: Northeastern University Press).
- Thorne, Barrie (1997) *Gender play: Girls and boys in school.* (New Brunswick NJ: Rutgers University Press).
- Thornhill, Nancy Wilmsen (1991) "An evolutionary analysis of rules regulating human inbreeding and marriage." *Behavioural and Brain Science* 14: 247-293.
- Thornhill, Rany and Craig T Palmer (2000) A natural history of rape: Biological bases of sexual coercion. (Cambridge MA: MIT Press).
- Thornton, Arland and Thomas E Fricke (1987) "Social change and the family: Comparative perspectives from the West, China, and South Asia." *Sociological Forum*(Fall): 746-779.
- Thornton, Arland and Hui-Sheng Lin (1994) "Continuity and change." in Arland Thornton and Hui-Sheng Lin eds *Social change and the family in taiwan* (Chicago: University of Chicago Press).
- Tiger, Lionel (1970) "The possible biological origins of sexual discrimination." *Impact of Science on Society* 20(29-39).
- Tooby, James (1976a) "The evolutionary regulation of inbreeding." Santa Barbara CA, Institute for Evolutionary Studies, University of California, Santa Barbara,, Technical Report 76(1): 1-87.
- Tooby, James (1976b) "The evolutionary regulation of incest avoidance." Santa Barbara CA, Institute for Evolutionary Studies, University of California, Santa Barbara,, Technical Report 76(2): 1-92.
- Tooby, James and Leda Cosmides (1992) "The psychological foundations of culture." in Jerome H Barkow, Leda Cosmides and James Tooby eds *The adapted mind: Evolutionary psychology and the generation of culture.* (New York: Oxford University Press): 19-136.
- Townsend, Nicholas (1997) "Reproduction in anthropology and demography." in David I Kertzer and Thomas A Fricke eds *Anthropological demography: Towards a new synthesis* (Chicago: University of Chicago Press).
- Trivers, Robert L (1985) Social evolution. (Reading MA: Benjamin/Cummings).
- Urdang, Esther (2002) Human behaviour in the social environment: Interweaving the inner and outer worlds. (New York: Haworth Press).
- US Surgeon General (2001) "Youth violence." Washington DC, Department of Health and Human Services, A Report of the Surgeon General. http://www.surgeongeneral.gov/library/youthviolence/youvioreport.htm
- Veroff, J, E Douvan and SJ Hatchett (1995) *Marital instability: A social and behavioural study of the early years*. (Westport CT: Praeger).
- Wallerstein, Judith and Sandra Blakeslee (1989) Second chances: Men, women, and children a decade after divorce. (New York: Ticknor & Fields).
- Ward-Batts, Jennifer (2000) "Out of the wallet and into the purse: Modelling family expenditures to test income pooling." Ann Arbor, Population Studies Centre,

University of Michigan, Working Paper No 01-466. http://www.psc.isr.umich.edu/~jwbatts/papers/IncomePooling.pdf

- Waynforth, David (2002) "Evolutionary theory and reproductive responses to father absence: Implications of kin selection and the reproductive returns to mating and parenting effort." in Catherine S Tamis-LeMonda and Natasha Cabrera eds *Handbook of father involvement: Multidisciplinary perspectives* (Mahwah, NJ: Lawrence Earlbaum Associates).
- Waynforth, David (2001) "Mate choice tradeoffs and women's preference for physically attractive men." *Human Nature* 12:207-219.
- Weiss, Laura H and J Conrad Schwarz (1996) "The relationship between parenting types and older adolescents' personality, academic achievement, adjustment, and substance use." *Child Development* 67(5): 2101-2114.
- Weitzman, Lenore J (1985) The divorce revolution: The unexpected social and economic consequences for women and children in America. (New York: The Free Press).
- Weston, Kath (1991) *Families we choose: Lesbians, gays, kinship*. (New York: Columbia University Press).
- Wilkinson, Helen and Geoff Mulgan (1995) "Freedom's children." London, Demos.
- Wilkinson, Richard (2000) *Mind the gap: Hierarchies, health and human evolution.* (London: Weidenfeld and Nicholson).
- Willis, Robert J (1999) "A theory of out of wedlock childbearing." *Journal of Political Economy* 107(6): S33-S64.
- Wilson, Edward Osborne (1978) On human nature. (Cambridge MA: Harvard University Press).
- Wilson, Edward Osborne (1998) *Consilience: The unity of knowledge*. (New York: Vintage).
- Wilson, Margo and Martin Daly (1985) "Competitiveness, risk taking and violence: The young male syndrome." *Ethology and Sociobiology* 6: 59-73.
- Wilson, William Julius (1987) The truely disadvantaged: The inner city, the underclass, and public policy. (Chicago: University of Chicago Press).
- Winnicott, Donald W (1971) "Transitional objects and transitional phenomena." in Donald W Winnicott ed *Playing and reality* (London: Tavistock).
- Winterhalder, Bruce and Eric Alden Smith (2000) "Analyzing adaptive strategies: Human behavioral ecology at twenty-five." *Evolutionary Anthropology* 9(2): 51-72.
- Witte, John F (2000) The market approach to education: An analysis of America's first voucher program. (Princeton NJ: Princeton University Press).
- Wolf, Arthur P (1986) "The preeminent role of government intervention in china's family revolution." *Population and Development Review* 12(1): 101-116.
- Wolf, Arthur P. and Chieh-shan Huang (1980) *Marriage and adoption in China, 1854-1945.* (Stanford: Stanford University Press).
- Wolf, Margery (1972) *Women and the family in rural taiwan*. (Stanford: Stanford University Press).
- Wright, Robert E (1994a) "Feminists, meet mr Darwin." *New Republic* November 28: 34-35.
- Wright, Robert E (1994b) *The moral animal: Evolutionary psychology and everyday life.* (New York NY: Pantheon Books).
- Yanagisako, Sylvia Junko (1979) "Family and household: The analysis of domestic groups." *Annual Review of Anthropology*: 161-205.

- Yanagisako, Sylvia Junko and Jane Fishburne Collier (1987) "Toward a unified analysis of gender and kinship." in Jane Fishburne Collier and Sylvia Junko Yanagisako eds *Gender and kinship: Essays toward a unified analysis* (Stanford: Stanford University Press).
- Zahavi, A (1977) "The cost of honesty (further remarks on the handicap principle)." Journal of theoretical biology 67: 603-605.
- Zelder, Martin (2002) "For better or for worse? Is bargaining in marriage and divorce efficient?" in Antony Dnes and Robert Rowthorn ed *The law and economics of marriage and divorce* (Cambridge: Cambridge University Press): 157-170.
- Zelizer, Viviana A. (1997) *The social meaning of money: Pin money, paychecks, poor relief and other currencies*. (Princeton: Princeton University Press).