# Networks that form policy: the case of pension reform

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I declare that all the work in this thesis is my own

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# Abstract

Networks have been widely adopted in political science, particularly in connection with governance and with the process of policy formation. Every study, if it forms part of this universe, bases itself on adopting a network 'world view': all studies start with the assumption that 'there is a network here'. Dispiritingly few go on to explain, justify or discuss the implications of this assumption *with reference to the assumption*; in contrast this thesis intentionally regresses back to a detailed look at first principles.

This thesis develops and presents a new and valuable approach to the formal analysis of networks that form policy. The approach is drawn out of a theoretical consideration of the policy process and examined in the context of existing policy network literature.

A test of the usefulness of the approach is made by application to a case. There are therefore two intertwined threads of content built around the topic of pension reform. The formal analysis of a network of actors is presented alongside a 'traditional' case-study approach to the policy-making process for the UK and France. These two analyses contribute to an assessment of the comparative advantages of the two methods. The thesis is constructed with the intention of clearly presenting a new analytical approach that can be adopted by other researchers and ensuring that it is adequately justified so that it will be adopted.

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# Acknowledgements

I would like to acknowledge some people explicitly for the help or inspiration that contributed to this thesis. However, there are also many many people who made a contribution directly or indirectly who cannot be thanked by name – I hope they remind me of their help so I can thank them again personally!

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The Ecole Doctorale of Sciences-Po Paris (Institut d'Etudes Politiques) kindly welcomed me as Auditeur Libre and gave me access to both intellectual and practical resources that made my research in France more effective and more pleasurable.

The three years of undergraduates and graduates that I taught at LSE during the time this thesis was being written have been a great source of support and provided essential human contact. They brought my academic life into balance. My colleagues in the 2001 PhD intake of the LSE Government Department were also an essential crutch in getting through the hard times. Liam was always ready to distract me from the dangers of working too hard or too long.

My former colleagues at the Department of Work and Pensions, particularly Paul Gray (now at Inland Revenue), helped me out and continued to trust me even when I pushed the limits of their discretion. All the other interviewees in both the UK and France were

# Glossary

| Bercy | The French Ministry of Finance |
|---|---|
| BSP | Basic state pension |
| CFDT | La confédération Française démocratique du travail |
| CFE-CGC | La confédération Française de l'encadrement – confédération générale des cadres |
| CFTC | La confédération Française des travailleurs chrétiens |
| CGT | La confédération générale du travail |
| CGT-FO | La confédération générale du travail force ouvrière |
| COR | Conseil d'orientation des retraites |
| CTB | Council Tax Benefit |
| DSS | Department of Social Security (later DWP) |
| DWP | Department of work and pensions (formerly DSS) |
| Elysée | The French Presidents office |
| GDP | Gross domestic product |
| HB | Housing benefit |
| HMT | Her Majesty's Treasury |
| IRB | Income related benefit |
| Loi Fillon | The French pension reform law introduced by François Fillon |
| Matignon | The French Prime Minister's office |
| MDR | Marginal deduction rate |
| MEDEF | Movement des entreprises de France |
| MIG | Minimum income guarantee |
| MP | Member of Parliament |
| NFP | Network that forms policy |
| Number 10 (or No. 10) | The UK Prime Minister's office |
| PBR | Pre-Budget report |
| PQ | Parliamentary question |
| PS | Parti Socialiste |
| SpAd | Special adviser |
| UDF | Union pour la démocratie française |
| UMP | Union pour un mouvement populaire |

## Author's note

The vast majority of the work done on this thesis was carried out between September 2001 and August 2004: it should be assumed to be current as of August 2004. However, where minor amendments have been made after August 2004 they may reflect later information or sources. Interviews were carried out during the period April 2003 to April 2004. All translations both of interview notes and literature from French are my own.

Confidentiality for interviewees is a priority for any researcher working in a field such as this thesis addresses. I have taken as much care as possible to ensure that any interviewees that requested either anonymity for themselves, to have all or some of their comments unattributable or to request clearance have had their views respected. If anyone feels that there appear to be cases where I may still have revealed confidences that would better be left hidden please let me know. Equally I would ask readers and users of the information contained in this thesis to respect the generosity and candour of the interviewees by drawing on the material presented in a way that reflects the context in which the information was offered.

# I. Introduction

This thesis develops and presents a new approach to the formal analysis of networks that form policy. To ensure coherency and usefulness the approach is drawn out of and justified by a theoretical consideration of the policy process. The approach is also examined in the context of existing policy network literature. Although the approach can be accepted from the theoretical and methodological descriptions alone a true test of its *usefulness* is made by application to a case. This application also illuminates the approach far more effectively than further theoretical detail.

The term 'networks that form policy', referred to as NFPs, is used in order to put some distance between the concepts and ideas that are proposed and the wider literature that already exists on policy networks. NFPs are defined thoroughly later on, but for the time being they need to be understood as nothing more than their name suggests. The hypotheses that are tested in this thesis are about what the NFP approach can or cannot do. The field to which the NFP approach is applied is the case of pension reform, however, the investigation in this field only exists to support the testing of the hypotheses about the NFP approach.[1]

There are therefore two intertwined threads of content built around the topic of pension reform. The formal analysis of a network of actors is presented alongside, as a comparison, a 'traditional' case-study approach to the policy-making process for the UK and France. The research was conceived in this way from the start as while wishing to delve deeply into the ability of mathematics to uncover patterns that can never be

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[1]  The reader should not expect to find sophisticated hypothesising and testing of theories about pension policy or the pension policy process. Examples of the kinds of hypotheses that this thesis can sustain, given its high theoretical content in developing the methodologies, can be found in Chapter 4. Also at the end of Chapter 4 can be found the sorts of hypotheses that other researchers, drawing on the approach developed in this thesis, would be able to test using an NFP approach.

uncovered by non-mathematical methods, I had no wish to lose along the way the colour, breadth and life of politics. It was the conflicting attractions of mathematical elegance and political messiness that informed my overarching hypothesis, while my years as a UK civil servant, most recently in the Department of Work and Pensions, suggested the area of research.

## Networks and traditional case study

Networks have been widely adopted in political science, particularly in connection with governance and with the process of policy formation. Every study, if it forms part of this universe, bases itself on adopting what I shall call a network 'world view'. All studies explicitly or implicitly start with the assumption that 'there is a network here'. Dispiritingly few go on to explain, justify or discuss the implications of this assumption *with reference to the assumption*; in contrast this thesis intentionally regresses back to a detailed look at first principles. Most studies that engage with questions that belong to political science, rather than being purely network analytical exercises, have a strong emphasis on *the network* or *the networks*, emphasising what Rhodes and various collaborators call 'thick description' (Bevir and Rhodes 2003: 21-22).[2] This thesis looks not only at *the networks* but drops the definite article and also examines *networks*. Here, there is an attempt to balance the importance of 'telling a good story'[3] and all the interpretive acts that follow that story with an understanding that even a good story carries elements of a model and that other models, in this case network representations, can bring in complementary information that would otherwise remain hidden.

The attempt at balance is evident in the overarching hypothesis that is tested and

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[2] Bevir and Rhodes cite Geertz (1973)

[3] Peter Hennessey, perhaps fearing that I may become a barbarian, has on many occasions exhorted me to value 'telling a good story'. I would therefore like to attribute the phrase to him.

critically examined in this thesis: *the organisation of observations into an NFP model and the analysis with suitable methods can reveal valuable information that would not emerge from a traditional case study.* Despite the way in which this hypothesis is cast, the value of engaging stories and intelligent interpretation are far from being attacked, with two chapters given over entirely to telling the story around, and interpreting instances of, policy making in the field of pensions. Although I am unapologetic about the obvious value of narratives or 'traditional case studies' and take them as a base reference against which to value NFP methods, I am not giving them an easy ride. I will approach the traditional case study so as to allow it to be compared to the network methods, which involves thinking of it as a complex model with unstated assumptions. Parts of this thesis will examine the risks of the hidden 'modelling techniques' used to reduce complexity in narrative case studies. For example, accepted political language is investigated by the network analysis techniques to see if it is really a poorly defined 'model' where generic labels such as 'civil servant' lack any structural relevance.

In the conclusion the findings from the case-study and NFP approaches will be assessed and the complementarity and the applicability of each method to different questions will be discussed. While some specific hypotheses tested by the NFP approach are elaborated in later chapters, I will set out here the broad questions that are addressed in both the case-study and NFP parts of the thesis; this framework is used to facilitate comparison. Such a framework also gives other researchers a clearer way to see how the two methods may serve them. The questions to be considered are:

- What characteristics of the policy process relate to its success or failure?
- Who are the important people and what are the things that make them important?

- What are the working methods and how did the process unfold?

As explained above these are not rigid questions that will be hypothesised about and rigorously tested to draw defensible conclusions as they would be if this was the central point of the thesis. These questions exist as an enabling framework for examining the fundamental material of the thesis: the approaches.

## The scope of applicability of the work

Generally speaking this thesis is concerned with national governments although there is no theoretical reason that emerges why it should not also refer to sub-national or supranational levels. The main case studies are concerned with specific and mostly self-contained strands of pension policy in the UK and France. In addition I use many examples from the UK in the theoretical discussion but the theoretical findings suggest that there is no reason to doubt that a similar consistent picture could not be built from any other country.

It is important to note that what follows is not the only path to achieve the aims set out within the constraints given. In mathematics there are alternative methods to solve a given problem, all of which are built on solid axiomatic foundations. In cartography the Mercator and Peters projections both represent the physical globe and both meet the expectations and needs of a variety of naïve and sophisticated map users. This thesis is one conception of how a system of political mapping can be constructed to lead to analytical methods that will useful in a range of situations. It does not propose a unique solution.

## Policy sector: pension policy 'broadly speaking'

Pension policy in this thesis is taken to cover public policy that directly affects the

revenue of those who have reached pensionable age. The reason for the 'broadly speaking' clause is that under my definition pension policy includes topics that may not often – narrowly – be seen as 'pensions issues' especially by economists who may have their minds focused on pension funds, equities and replacement rates. I, however, include in my definition issues such as taxation regimes of earned income along with other tax regime changes directly addressing pensioners, changes to income support levels and systems for pensioners, and even 'active ageing' policies affecting especially through economic incentives the labour market the economic situation of the elderly. Note that the word 'directly' above implies that policies such as increasing interest rates (thereby implicitly increasing most pensioners private income) would not be counted: even though the elderly often make this an issue (as they live much more off investment income and have low levels of indebtedness) it can never be seen as an explicit 'pensions' policy. However, legislation in the UK that introduced regulation for 'stakeholder pensions' where charges were regulated and forecasts were simplified is, theoretically at least, in the list as it was an explicit attempt to encourage higher levels of private provision for retirement. Given this definition we must be careful to ensure that policies are not judged to be in the list on the basis of success; if the stakeholder legislation fails to achieve its aim it will not have affected the revenues of pensioners but must be included in the list as this was the intention.

Pension policy is a special policy area and many of the key reasons for this can be summed up by its misfit with political life. Politics brings to mind many things for many people: short-term, ideologically based, concerned with ends rather than means,

concerned with sexy[4] topics, high impact for little spending and based on 'gut-feeling' or 'political antennae'. Hence pension policy is to a large degree 'anti-political' primarily in that it is long term not only past the horizon of politicians but also often to the point of defeating even the technicians. It also tends to present similar problems irrespective of ideological viewpoints, for example the same difficulties exist at a macro level as a result of changing demographic profiles whether funded pensions or pay-as-you-go systems are preferred (Barr 2000: 9). Pension policy is also 'unsexy' to the point of desperation suffering the double-whammy of being associated with old-people and economists.[5] Even policies that have little impact are extremely expensive and continue to get more so every year. The only typical political tool left standing is the 'political antennae' which are often torn apart by the conflicting demands of the elderly beneficiaries and the younger workforce who have to pay – often twice – when reforms demand both that better benefits are given to the current elderly and that the current workforce make their own provision rather than relying on tomorrow's contributors.

Despite this anti-political aspect pension policy nevertheless creates 'an impressive level of political controversy' (Bonoli 2000) and there are other compelling reasons for studying this sector. The policy area of pension reform allows reasonable control of many of the variables that would usually confound analysis. The problems that have led to the need for pension reform are broadly and in many cases specifically the same across states. Pension reform does not limit its effects to different subsets of the population in different situations - everyone is always affected. Types of pension system, although they

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[4] This expression has been much misused since the Kelly Affair in 2003/4 (see further details and reference in chapter 2). It is generally taken to mean a topic which a politician can use to grab the interest of the public rather than bore them to death. It is only tangentially concerned with lying and no more so than politics in general. 'Sexed-up' has always meant 'to make interesting', possibly 'media-worthy', not to lie.

[5] One of the major problems in pension policy in the UK is that, because it is perceived as so uninteresting, nobody thinks about a pension until their retirement appears on the horizon by which time it is too late to do anything of any value.

differ in detail, are broadly comparable in their economic features. For instance, from a broad characterisation of pension systems in Barrientos (1998: 56-62) it can be seen that given a context of policy making in networks, the issues and characteristics of alternative policy scenarios can be reduced to manageable comparisons.

## Theoretical concepts

Understanding what the policy process actually consists of from a network based perspective is achieved using insights borrowed from the fields of evolutionary theory and ideational theory. Much of the current policy network literature assumes, flying in the face of recent mathematical network literature, that categorisation and summarising of networks and creating taxonomies is straightforward allowing general statements about the policy process to be made. I will show that with neither a fuller appreciation of network analysis, nor some kind of background model for the policy process that maps onto a network representation, such ideas are, at best, fortunate if they have any correspondence to reality and at worst they are destructively misleading.

It is important that the concept of NFPs can be theoretically justifiable as to its place in the wider policy process and it should also be made relevant to other theories within political science. In order to achieve this the thesis outlines how the NFP concept can be placed in a context that draws together three important strands of political science: ideational approaches, network theory and evolutionary theory. The conception of policies as being built of ideas that can be understood in the same way as genetic replicators leads to the view of an NFP as an environment where these ideas can play out their evolution. The actors and the links of the network are seen to be the essential elements in this selective environment that determines the policy output.

This conception of policy formation is a process analogous to genetic evolution but, unlike other work on policy evolution (Dowding 2000; John 1999), it specifically concentrates on evolution of policy within an environment which consists of ideas held within a network of actors. Here an NFP is a network of policy actors with links that represent pathways along which idea-elements can potentially be transmitted. It is important to understand that under this conception although the network is made up of 'actors' they are not the units of observation nor the agents: the actors and their idea-element pathways form an environment in which ideas evolve in the same way that physical geography of the islands of the Galapagos forms an environment where genes compete (Astill 2004a).

## Structure of the thesis

In Chapters 2 and 3 the case study is presented. The case is pension reform and there are two instances examined, the UK and France, that formed two concrete policy conclusions, each similar in that it affects the public-private mix of pension provision.[6] The colourful scene and general feeling of complexity are not only vital to demonstrate the unique value of case-study but they also set the stage for an appreciation of how an NFP model has to cut out much of the 'garnish'. At the same time we reflect how case studies must also do the same process of cutting out and furthermore selectively emphasise the 'garnish' in order to create a fully rounded interpretation of the collected views.

Chapter 4 is a bridging chapter that leads from the traditional case study through to the NFP analysis. There is a drawing together of threads from the case studies using the

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[6] Following the approach of Gerring (2004), the case is taken as 'pension reform policy process', from which we would hope to generalise to understanding 'the policy process'. Within the case we take two sub-cases as the units of investigation giving an n=2 investigation. The limitations and complications inherent in conceiving case study in this way are discussed at length by Gerring.

broad framework of questions outlined above. The chapter then proposes the framework of nested hypotheses, also within the broad question framework, that are tested in the later chapters of the thesis. This bridge leads to the NFP concept making a full entrance. Chapter 5 consists of the initial theoretical work examining the nature of both the policy process and networks and asserts a set of basic assumptions about NFPs. In Chapter 6 the existing literature on networks in political science is discussed through the lens of the base assumptions. The wide variety of studies are summarised leading to a categorisation of literature based on how the idea of 'networks' is used.

In Chapter 7 the base set of assumptions is used to form a model of the policy process that both justifiably represents reality and lends itself to analytical use. The model is one that lends itself to analysis for testing hypotheses and offers descriptive accounts to answer questions of interest to both researchers and practitioners. We can again take cartography as analogy here. The making of maps serves those who wish to study the spatial distribution of Neolithic settlements as well as it serves those wishing to invade their next door country. It achieves this by making available a useful model of the real world (the map) for any given area and to a given precision. So, the aim of the NFP method is to be map making for politics. The 'map' (or model) can then be examined to attain information to answer a wide range of questions. We can also extend the analogy; map-reading is a skill that has to be learnt to get the most out of a map, but most maps have value for those who are not practised in the skill as they present information in a readily accessible form. NFP methods should also result in representations that have this quality. Beware, however, that in this analogy, the cartographic model (the map) is a visual representation of the physical world but NFP methods may not necessarily point to a visual representation being the best format for the 'model' of the political world. In

short, the NFP model should be a reasonable representation, easily accessible and useful to the casual user, but also capable of being analysed in a sophisticated way to test advanced hypotheses.

Chapter 8 addresses some of the practical considerations concerned with empirical work on NFPs in light of the theory outlined in previous chapters; the mathematical representation of the NFP and analytical techniques impact on the quality of data that is required while the approach taken to defining the network boundaries and mechanisms reflects on the scope of data to be collected and the sampling techniques that will be adopted.

In Chapter 9 extensive analysis of the NFP model is carried out to test the hypotheses identified in Chapter 7. Conclusions and a consideration of where the NFP concept might be heading are presented in Chapter 10.

# II. UK pension policy case study

This chapter consists of the UK case study narrative which examines the development

of the Pensioner Credit policy in the period before it was presented as legislation - the

period from roughly early 2000 through to November 2001 when the Pensioner Credit

bill was given its first reading in the House of Lords. This chapter presents information

from various sources: the formal interviews conducted with the actors identified as being

part of the NFP, written sources, both primary and secondary, and from interviews or

informal discussions with people not identified as members of the NFP. There is also use

of my personal knowledge of the pension policy sector from the time that I spent in the

Department of Work and Pensions (DWP), but when possible I have tried to use

alternative sources to verify this information. It is noticeable that the balance of the

chapter is a little different from the French case study that follows. This is due to the fact

that the UK policy process was, in most cases, defined by the political opportunities that

could be obtained from the policy itself. Many of the decisions were based on the policy

analysis taking place and how this analysis slotted in with the imperatives through the

political networks within government. Bluntly, the UK executive actors did not have to

take a lot of notice of anyone apart from themselves. In contrast the French process was

often characterised by the constraints inherent in operating within an environment that

was about risk avoidance and concerned with getting on board non-governmental actors

in order to produce a convincing body of support. The nitty-gritty of the policy in France

was less important than that of the politics. This means that reflections on the direction

the process took in the UK necessarily contains more detail on the policy than the French

case and is often less concerned with personalities and their positions.

## Case study timeslice: a brief sketch

The British Labour party is one of the most streamlined political machines outside the USA. As part of its electoral strategy it is intensely aware of the power of the grey vote. New Labour has sought to woo the elderly and in the run up to the 2001 election it knew that this constituency was a key one to win. Although it was already looking towards a historic landslide, vote-winning policies had to emerge to capture the grey vote and ensure that dissatisfaction on pension issues did not snowball into wider problems. Not only were these electoral strategies vital, but for historical party reasons, care of the elderly poor was an issue that had to be addressed sensitively.

In early 2000 a new strand of pension policy emerged in the UK and by November 2001 it was before Parliament in the form of a White Paper. The reform, with a forecast cost estimated at considerably over £2 billion per year, or around 0.2% of GDP (Department of Work and Pensions 2002), was called 'the Pensioner Credit'.[7] Trailed many times by the Chancellor of the Exchequer,[8] Gordon Brown, and finally announced in the House of Commons by Work and Pensions Secretary, Alistair Darling, in November 2000, it was evident even then that it was the work of many hands. The DWP was the policy lead,[9] but there was a background agenda of an integrated tax and benefit system (Brown 2000b; Department of Social Security 2000: chapter 5) from which, along with the tight rein on spending usually enforced by the Treasury, there emerges a mixed governmental interest.

Mr Brown and Mr Darling had several sharp knives to juggle with state-pension

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[7]   For the purposes of consistency, government expenditure will use the UK convention of 1billion = 1000million, even when comparisons are being made outside the UK or Europe

[8]   The UK's finance minister who heads the Treasury (officially titled Her Majesty's Treasury or HMT) which is the UK finance ministry

[9]   DWP was formerly the Department of Social Security (DSS).

policy; pensioner poverty was a key test of the government's commitment to the poor, while concerns over 'pensioner dignity' helped to push the perceived level of a decent living much higher up the income scale than might be expected from a typical anti-poverty stance. Nor could spending be seen to get out of control and, in a tense atmosphere following mis-selling scandals, the pensions industry was ready to react badly to any moves in state-pension policy that might introduce further confused incentives for private provision. Poverty lobbies, trade unions, pensioner groups, industry representatives and advocates of alternative spending plans were all watching the game and waiting for the right moment to play their best cards. In addition to these pressures were the ever present dangers of another media bandwagon and, undoubtedly slightly less worrying, the opposition parties.

Throughout the whole period covered in this case study the strongest and most frequently recurring demand was, as mentioned above, for the Basic State Pension (BSP) to be linked to an earnings measure. This route had been rejected on the grounds of affordability and its lack of targeting in that 'to plan for the future based on a flat rate earnings-linked rise paid to all ... would mean that less would be available for the middle and lower income pensioners in greatest need, who are our first priority' (Brown 2000b: col 325). However, the earnings link still ended up as a benchmark policy for spending, poverty reduction and, perhaps more importantly in terms of rhetoric, dignity. This situation is reflected in the cautious form of words used by Gordon Brown in the 2000 Pre-Budget Report (PBR):[10] 'our aim for pensions reform is both to end pensioner poverty and to ensure that all pensioners share in the rising prosperity of the nation' (Brown 2000b: col 325). The earnings link was portrayed as being what pensioners

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[10] The PBR is, along with the budget, one of the major set pieces of the parliamentary year.

wanted something that was admitted by Prime Minister, Tony Blair, at the Labour party

conference in September 2000 (BBC online 2000). However, future pensioners, or

current taxpayers as they ought to also be termed, had interests strongly opposed to the

existing pensioner population. From the factors outlined above, it is not difficult to

construct the scenario facing the Government - they had to appear as if it was caring and

sharing, but being prudent with the budget. However, the government also had to give

pensioners back their dignity and lift them out of poverty, without allowing even one

hard-working, but modestly well-off, pensioner to look over the fence at his apparently

feckless neighbour being given a handout. In the more subtle and diplomatic words of

the Secretary of State for Work and Pensions:

> All of us are familiar with pensioners who feel let down by a system that has not
> rewarded their thrift. A pensioner with £20 of occupational pension on top of her
> state pension can sometimes find herself just a pound or two better off than
> someone who had saved nothing. That is unfair and unjust.

*(Darling 2000: col 453)*

The importance and relatively strong voice of these 'just above the MIG' pensioners,[11]

that is those who just miss out on the income support benefit targeted at pensioners, is

key in securing an acceptable reform, Brown outlines their plight in his 2000 PBR and he

then highlights their importance in a hearteningly democratic way: 'these are people

whom we meet every week in our constituencies' (Brown 2000b: col 326). There was,

however, one further twist to the tale: the government had to give more pensioners relief

from poverty, but without subjecting them to the indignity of the standard means-test that

holds the embarrassment of having to fill in a lengthy and complex form asking them

about their often negligible resources. This point is central to the policy questions of

pensioner dignity.

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[11] The MIG is the Minimum Income Guarantee. This is the name given to Income Support for those of pensionable
age. It is explained in more detail later in the chapter.

To find a way to remove the gulf between the poorest pensioners and their richer neighbours and to make an impact on the incomes of the poorest required a redistributive policy at a time when the concept of redistribution was a taboo (Guardian 2002). Not only did all these constraints have to be faced but, thanks to the electoral politics, someone had to do all this whilst satisfying as many of the disparate interests as possible on the level of political appearances. This introduction has outlined the circumstances in which the pension credit was being devised, the case study will look at the policy network that created a policy within this complex environment.

## General UK political environment

The UK system of first-past-the-post elections means many governments find that they can usually count on getting policies through Parliament with few, if any, undesired amendments. Data on commons votes (Boothroyd 2000) shows that between the Thatcher government's election in 1979 and the end of 2000, for example, there were only 13 occasions when the government was defeated in a Commons division. The Labour governments of Wilson and Callaghan from 1974 were somewhat exceptional in having a much higher number of defeats and governing with a minority for some of the time. Apart from this period and a few troubled months for Macdonald in 1924 it is rare for governments to face any entrenched parliamentary difficulties on the vast majority of legislation. It could be imagined that this parliamentary arrangement would mean a smooth ride for the government of the day in formulating policy, legislating and then implementing it. On the contrary, there is an even greater incentive for all kinds of interests to have their voice heard by government as they can be confident that if they gain the 'ear' of the policy makers they will see their point of view reflected in

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legislation. As the means of persuading governments become more sophisticated with continuing advances in technology and the tighter integration of society, these greater incentives come along with better and better probabilities of succeeding (Richardson and Jordan 1979: 14). The UK petrol price protests of 2001 provide an example of how, as the media become more immediate and expand with more time to fill, a well-organised protest using an effective public relations strategy and a few mobile phones can force a voice onto government (Dilley 2000). Not all voices clamouring to be heard by government are so dramatic; many have a solid methodical day-to-day strategy and have a longer lasting impact than flash in the pan media-hyped protesters.

The internal dynamics, as well as the more frequently cited external relations, of the UK political system are based on consultation and consensus even when the heart of the political executive in power is seen as dictatorial or strongly ideological. This characteristic stems from 'departmental pluralism' (Richardson and Jordan 1979: 26) whereby all policies, and especially budgetary allocations, become a matter for alliances between powerful cabinet ministers with their fiefdoms. They defend to a greater or less extent their perceived 'client group' and their own territory, and promote their own image by pushing suitable policies. Despite the trumpeting of 'joined-up government' and the spawning of 'cross-cutting policy units' under the Blair government over the last few years there is still an underlying structure of a divided whole when it comes to policy making within Whitehall. Yet, despite all the jousting going on, everyone is still happy to gossip around the Whitehall village pump. The Treasury, for example, is described as a village with actors 'sometimes in conflict, often in agreement, but always in touch and operating within a shared framework.'[12] The 'revolving door' phenomenon, whereby

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[12] Heclo and Wildavsky 1974 quoted in Marsh and Rhodes (1992: 8)

civil servants, pressure groups and political advisers to private concerns are in free exchange, exists (as we will see in Chapter 6) but has not thoroughly taken hold in Whitehall. There is, however, a great deal to be said for the 'strength of weak links'[13] whereby relationships built up, for example, at university or in a previous posting can knit networks together and take the place of 'political' loyalties that exist in other countries. The lack of party 'political' loyalties amongst civil servants, who as we will see are in many cases the glue of policy making, is something peculiar to the UK and suggests that a key characteristic observable for most actors, that of political alliance, is lacking for this important group. Both the 'revolving door' and the political affiliation of civil servants gives an interesting comparison between the France and the UK case studies and leads to somewhat contradictory findings about the differences in the institutions and the effect on roles in policy-making. The groups into which the actors can be seen to naturally split emerge from the case studies, but it becomes clear that to assess the cohesiveness of these groups with any rigour requires the techniques of network analysis. This is a good example of the scientific 'exploration - hypothesis – verification' process described in the introduction: groups can be deduced from the case study material, a hypothesis can be stated about the policy process and tested with the network techniques or, conversely, network techniques can be run to extract the most cohesive groups and these can be examined to see if they show similar or differing patterns by using the case study data about the actors and the process.

In the UK system where civil servants are not politically appointed at any level,[14] special advisers (SpAds) are an unusual feature of the landscape. The SpAds have,

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[13] Interpretations abound of the work of Granovetter (1973). One of the main implications is that ties that are not explicitly connected to the work in hand can be more important than those which are.

[14] But see the later comments on Ed Balls

theoretically, the same role as civil servants but they are appointed by the minister and their contracts end on the departure of their minister. As a result of their rarity, usually one or two in a department,[15] closeness to the Minister and ability to behave in an ostensibly political fashion they tend to have a hand in any high profile policy. They also pay special attention to anything that has inter-departmental aspects or is likely to be controversial or attract media attention. In certain areas that require prolonged concentration on a technical issue special advisers will not take such a full part. Potentially covering all issues within a department they tend to be very busy but, unlike the minister responsible, do not have the weight of duty on them to understand everything that may be pronounced in the House of Commons or written in a Parliamentary Question. However, that said, they will tend to pick on issues that the civil servants (and indeed sometimes the ministers) would rather be left in the background. In this sense, even on highly technical issues in policy making, they will play the 'reality check' card. The other key actors in the department are the minister's private office; they deal with all issues that pass over the minister's desk although their role in terms of policy making is something that is even more difficult to establish than with the normal civil servant. The final judgement must rest with the empirical evidence perhaps not from the case study, where a lack of mention (or decision to include or not in the narrative) is unconvincing, but from the network analysis in later chapters where the systematic questioning elicits a mention of anyone that actors feel is important and the network analysis methods can then sensitively assess actors against each other. One other politically affiliated civil servant case exists: that of Ed Balls, the Chief Economic Advisor to the Treasury and closest advisor to the Chancellor, Gordon Brown. When

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[15] In July 2000 there were 79 in total (Hansard 2000).

Balls was appointed to this role it was the first time ever that a known political adviser had taken on a top 'neutral' policy post but the evidence from interviews seems to suggest that the way Balls worked within the policy making context was little different to a career civil servant and the appointment did not seem to cause any visible polarisation between 'political' and 'neutral' advisers. Personality, of course, plays a part as can be seen in the insurmountable problems caused by friction between the political and neutral advisers in Stephen Byers time at the Department of Transport (BBC online 2002).[16] There seems to be no fundamental reason though why relations should be improved or worsened by such appointments.

So far, all the discussion has focused on the government and their civil servants. It is important to also consider the opposition, free-spirited MPs of the government's own party in the House of Commons and the even more troublesome characters sitting in the House of Lords. The key to understanding their roles lies, as with so many aspects of policy making now, in the sheer scope of government involvement in national life. Parliamentarians cannot hope to cover all aspects of government; instead they rely on representing constituencies. MPs have their local constituencies and if they wish to be re-elected this is an unavoidable responsibility. However, virtually all parliamentarians also have other interests that they pursue. It is usual to find that in a Commons debate the Speaker will have a strong idea about who should be called from the floor on any

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[16] A story that illustrated how quickly disaster can ensue when things go wrong in the interface between political and neutral servants of a minister. The first problem that occurred in the Byers affair was that his political adviser wanted to push out the department's own 'bad news' stories in the wake of the September 11th attacks in the US. A similar approach was taken to a story on the day that Princess Margaret died, but the neutral civil servants were not impressed by this and events came to a head when the adviser seemed to obtain the 'resignation' (which was in fact never offered) of a career civil servant as a quid pro quo for resigning herself. The course of events collapsed into a shambles which culminated in the Permanent Secretary repeatedly using four-letter words to describe the situation in the department. The press had a field day and eventually Byers resigned. An interesting aside for this case study is that Alastair Darling, who career civil servants in DWP spoke well of, was sent to replace Byers and took his own Permanent Secretary with him to have provide complete change of senior personnel providing a 'safe pair of hands.' We can assume that had Byers been the minister in DWP during the period of this case study and not Darling we may have seen some very different interviews.

particular subject and civil servants will also have a good idea about who will ask good, or troublesome, Parliamentary Questions (PQs).[17] The departmental Select Committees of the House of Commons are another parliamentary influence on policy, but despite their strong reputations, they focus on even more narrowly defined slices of government business. Even in the time that it takes for the gestation of a single policy statement it is unlikely that a select committee will have more than a passing interest in that area and, when they do, unless the departmental response is particularly sloppy or the report happens to come in tandem with another such as an National Audit Office report that is also critical and gains publicity, although the committee report may add to the troubles of the policy makers or help out their opponents, it is unlikely to alter seriously the balance of power. This is even more the case because such interventions tend to be after the event and so, unless there is the rare occurrence of similar policy processes following on from each other in a short space of time, there is nothing much in terms of policy making (as we are defining it) for the reports to influence.

These general points about the political environment also illuminate why the pensions sector is especially interesting to study for NFPs in the UK. It is a policy area that crosses departmental boundaries, it is highly politicised with a clear distinction between the policies of left and right and it is often in the public and media spotlight. There is a strong impact on the wider economic position because of the high levels of spending associated with state pension provision and there is a need for sound pension policy in ensuring a stable macro-economy over time.

## Pension policy environment

In the UK pension policy is the responsibility of the DWP but there is also interest

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[17] To a Civil Servant 'good' and 'troublesome' PQs are often synonymous.

from HMT, the Inland Revenue and, occasionally from the social policy section of the Number 10 policy unit.[18] Within the DWP three ministers are involved in pension policies: a Minister of State has responsibility for pensions; the Secretary of State has overall responsibility for all departmental issues and, when business is in the House of Lords, the Parliamentary Under Secretary of State (Lords) is charged with pensions issues. The policy considered in this case study was originally announced by the Chancellor of the Exchequer in the April 2000 Budget Statement (Brown 2000a) and thereafter referred to in every Budget and PBR as a key plank of pensioner policy. Within the Treasury it was predominantly the Chancellor, Gordon Brown that dealt with the policy as it was an issue that involved what is known as Annually Managed Expenditure (AME), as opposed to the departmental spending. Since this involves the macro-level decisions about tax-raising and benefit distribution decisions stay with the Chancellor. As befitting its status as a 'big ticket policy'[19] and reflecting the Chancellor's involvement the Minister who took the lead in the DWP was the Secretary of State, Alastair Darling. In addition to these two Cabinet Ministers working on this policy with potentially something around £3bn annually of discretionary expenditure, possibly substantially more (see table 2.1), and an ostensibly redistributive development, it can be safely assumed that the Prime Minister would be expecting his own No.10 team to keep a close eye on the progress of the policy. Of course the involvement and relative importance of these actors and the departments within which they work can only be inferred from institutional details and aggregated impressions formed from the interviews when using the case study techniques, however we will see in the later chapters definitive rankings for the centrality of actors can be calculated from the NFP.

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[18] Number 10 consists of staff attached to the Prime Minister.

[19] Interview with Edward Miliband, 1 May 2004

### Table 2.1: Cost of the Pension Credit reform package under alternative policy scenarios

| Scenario | 2004 | 2010 | 2020 | 2030 | 2040 | 2050 |
|---|---|---|---|---|---|---|
| 1 | £2bn | £4bn | £8bn | £14bn | £20bn | £26bn |
| 2 | £2bn | £3bn | £4bn | £6bn | £8bn | £9bn |
| 3 | £2bn | £3bn | £3bn | £3bn | £2bn | £1bn |

Notes:
Figures expressed in £billion
2004 is the first full year of the Pension Credit reform package.
All figures in 2001/02 prices.
All figures rounded to nearest £ billion.
For the purposes of this paper, take-up is assumed to be 67 per cent in 2004 as entitlement to the Pension Credit is gradually established. (This is consistent with the 2001 Pre-Budget Report forecast.) Take-up for the subsequent years shown is assumed to be 100 per cent.

Source:    Department of Work and Pensions (2002)

## Preferred interlocutors

Notions of the hierarchical nature of the British Civil Service and too many repeats of 'Yes Minister' have led to the widespread misbelief that the preferred interlocutors of Ministers are permanent secretaries and the two levels below. However the same pressures discussed as leading to the impotence of parliamentarians, that is the sheer scope of governmental activity, as well as the rise in managerialism in the higher ranks of the civil service and the fashion for evidence based policy making all have led towards a drift down the hierarchy when Ministers are looking for policy advice.[20] The Chancellor's special adviser said: 'we worked with officials closely and this is a follow on from Gordon [Brown] who is interested in the people who know about the policy and that's what we are interested in and it's a good management thing – what's the point in having people who know about the policy not being in meetings. And now I think about it, Charlie Pate was working for Emma below Grade 7.'[21] The Chancellor's special adviser, has a range of responsibilities across a considerable proportion of governmental activity: that he is able to recall the name of the official who comes sixth or seventh

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[20] See interview evidence later and for a fascinating discussion of the current roles and activities of civil servants below the top levels. See Page and Jenkins (2005 forthcoming).

[21] Interview with Edward Miliband, 1 May 2004

down in the hierarchy from the permanent secretary is indeed significant in terms of the policy-making process. This is of course an isolated example of such an experience but it the sort of information that leads us to make valuable use of the NFP that we will build in later chapters. From the NFP and the derived analyses we can confirm that this practice of talking to lower graded staff is indeed a feature of the UK network.

## Outsiders

So far everyone considered has been inside government, but we have to also consider outsiders. In the time-slice sketch above we heard about the power of the grey vote and the jumpiness of the pensions industry following the mis-selling scandals. Where, institutionally, can the many voices that speak and wish to be taken account of be seen to fit into the environment? Alas in this particular sub-world of the pensions debate there is little to be seen directly of outsider groups. They do not come to any official liaison body and they are only involved in ad-hoc consultation exercises. Various think-tanks write reports: sometimes they take different sides of the debate, sometimes they give a balanced criticism of government policy on behalf of all points of the interest group compass. These are all filtered upward through the system in the department but none of them have a clear status beyond that of their individual representatives reputation. Some will be read by the lowest management grade and never be seen or commented on again, some will arrive at the Private Office of the minister, some may come straight to the minister's desk thanks to a good marketing strategy of a think tank – although the implications of such a fortuitous landing are still far from clear. Under the New Labour regime there were a good many policies, this being one of them, that were instigated and committed to even before the Blair-led government took office. This means that because of the lack of resources that marks opposition, interest groups that had researchers,

organisation and or policies that were of interest to the Labour Party would have found a good deal of influence early on. It seems that, for example, while child poverty groups have a foothold in the close knit inner circle of New Labour, the pensioner groups are a step removed. While this has not lessened the Labour Party's movement on pensioner poverty it has meant that once a commitment was made, encouraged by the groups, there was then less access at the post-commitment policy development stage. It is also interesting that at the policy development stage there was little academic involvement, as there are 'more academics on child poverty, a lot more, working on both policy prescriptions and analysis than there are working on today's pensioners [but] plenty of academics who work on tomorrows pensioners.'[22]

The key phrase in understanding the position of outsiders in the policy process is 'selling the policy'. This is not quite as Machiavellian as it sounds and, quite surprisingly, has some considerable element of give and take. When those involved on the government side talk of selling the policy they seem often to be a little ashamed, perhaps thinking of themselves as some kind of dodgy market stall holder trying to palm off shabby goods on an unsuspecting buyer. However, when looked at with the benefit of distance it is clear that they have already taken pains to make their product acceptable to the other side – it is only the use of the word 'selling' that makes them feel an overtone of seediness in the procedure. What is occurring is selling in a way that is more akin to a medieval market than a supermarket. The government is selling the policy in the sense that they are buying the (often tacit) support of interested parties and government's side of the bargain has to be acceptable if the barter process is to succeed. The discussion above may seem to be a diversion from the institutional environment of pension policy

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[22] Interview with Edward Miliband, 1 May 2004

formation but in fact it is necessary as in the UK there is no formal encounter equivalent to the 'negotiations between social partners' that we will see in the French case study. What is striking in comparative perspective is that 'selling the policy' is just as much an issue for the French government even though they have several institutionalised forms of contact on the formal-informal continuum. The French government came to those from whom they needed support with a set of proposals that was just as set as the UK government version – what is interesting is that the UK appears to perhaps be even more aware of their pressure groups in the formation of policy even though they never meet with them in even the thinnest guise of 'concertation'[23] or anything like it.[24] If the outsiders in the UK case informed the policy process it was by making known the terms on which they would 'buy' the policy through the media, commentaries and published reports. This can be verified by the complete lack of non-governmental actors that we see in the final version of the NFP that is constructed in Chapter 8.

## UK pensions policy context

The prevailing atmosphere at the time of this case study concerned pressure mainly as a result of a badly received increase in the Basic State Pension (BSP): Labour was 'ambushed at its party conference ... by pensioners protesting against the 75p increase in the state pension in April 2000' (Schifferes 2001). Although this rise accurately reflected the practice of the time – to increase the BSP by inflation – it was still a purely discretionary move and in no way unavoidable. Given the context of continued calls from players such as the National Pensioners Convention (NPC), various trades unions and other interested parties (BBC online 1999) to link the BSP to an earnings indicator,

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[23] See the next chapter for a discussion on the debatable meaning of this word.

[24] This emerged from many of the interviews conducted for the case study.

this small absolute rise was a move that caused avoidable friction. At the time the income distributions did not show the picture that the government was looking for: more and more pensioners were retiring on very good incomes but many were left languishing far away from the comfort zone enjoyed by their elderly peers.

In essence, the problem is one of limits on spending combined with managing the transition inherent in giving extensive help to the poor and nothing to the richer pensioners.

Behind this bald analysis though there was, according to Ed Balls, a set of policy decisions that were coherent and leading towards the pension credit. While they were waiting for the window to introduce the pension credit policy they did not wish to make major moves on the BSP: the introduction and commitment to the Minimum Income Guarantee (MIG), the Winter Fuel Allowance, the free television licences for over-75s and the BSP rises were a set of policies intended to leave the system itself as much as possible in neutral, but getting no worse until the time came when the pension credit could be instigated.[25]

> Take the 75p increase. At the same time as that went through we put winter fuel allowance up to £200 which was equivalent to about £3 per week. We could have chosen to do this on BSP, but we didn't want the BSP to be the focus of policy. The over inflation rises in BSP were only announced at the same time as and after we announced the pension credit. Our strategy was not ever to do anything to BSP until it was a transition to the Pension Credit coming in. All those other things were filling. So the 75p and winter fuel was basically because we don't want to pre-empt the pension credit.

*Interview with Ed Balls, 10 February 2004*

The complex interactions of the benefit world manifests itself in a multiplicity of checks and balances which can quickly take on the appearance of banana skins, three of the key issues are:

1) BSP increases are of no benefit to the poorest as their income related benefits are

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[25] Interview with Ed Balls, 10 February 2004

taken away pound for pound unless the Income Related Benefit (IRB) is increased by the same amount as the BSP;

2) across the board BSP increases are expensive and benefit the very rich. Even a tiny increase in the BSP ends up costing many billions of pounds that is all 'deadweight' to a pure political mind in the sense that it has no high political value by introducing anyone to something they did not have before, but merely gives them a small increase to an existing entitlement;

3) extension of poverty relief or any income related payments means, by definition, an increase in the number of pensioners being means tested leading to accusations of robbing the elderly of their dignity by having to rely on 'the social' or 'handouts from the state'

4) many pensioners who start out reasonably well off at retirement see the value of their pension decline relative to the standard of living of the country as a whole (this issue is picked up on below in the short discussion on indexation) until, at an age when they feel they should be respected, they find themselves in a queue with those from 'the margins of society' waiting for their weekly payment.

The desire was for an instrument that was more targetable than BSP but with more flexibility than changes to the MIG could offer by themselves; such an instrument would be able to focus on poorer pensioners, with a broader or wider definition as desired, whilst being responsive to spending concerns.[26] This implies problems which boil down, as briefly touched on in the first section of this chapter, to satisfying those 'Just Above the MIG' or 'the JAMs'. These people miss out on being entitled to the MIG by a very small amount of money and not only do they therefore lose out on automatic entitlement

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[26] Interview with Edward Miliband, 1 May 2004 and Interview with Ed Balls, 10 February 2004

to other benefits (such as some healthcare cost exemptions) but, as will be explained in more detail below, they are only a few pounds better off than some who have considerably less pre-benefit income. This group are exactly those whom Gordon Brown was unable to avoid in his constituency; furthermore those who tend to feel aggrieved in some way at this level are not the 'excluded' but have considerable resources to be seen and heard. If the poor are helped and the number of JAMs is limited then the amount going to each beneficiary will be much larger for the same amount of spending. This arrangement allowed the government to predict that they can 'give recipients of the pension credit more than even the earnings link in the basic state pension would give them' (Brown 2000b: col 326). Once the amount of expenditure is decided upon what is needed is a policy that can allow the number of beneficiaries to be played off against the level of benefit until the political equation looks right. The Secretary of State settled for a balance, but the iterations to arrive at this point needed a complex mix of political, administrative and economic knowledge. If the calculations are right it can mean that the money stretches as far as to ensure that 'not only will the minimum income guarantee rise in line with earnings, but so will the new pension credit' (Darling 2000: 453).

The UK has 10.3 million pensioners, of whom 7.3 million received a flat rate, minimal BSP that is expected to be supplemented by either a state second pension or private resources. The rest get their BSP (virtually all UK citizens are in receipt) along with either a disability benefit or the income safety net which, by 2000, had come to be known as the MIG, although it is in fact simply income support with higher support levels for pensioners.[27]

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[27] All figures in this paragraph are for 2000 from Department of Work and Pensions (2001b).

## Dignity

Virtually a whole thesis could be written on the topic of 'dignity' as it influences thinking about policy in this area. Unfortunately there are, as Ed Miliband says above, very few academics working on 'today's pensioners' and so a brief summary of the issues is laid out here in the absence of any good references on the subject. Lack of dignity is mentioned regularly in debates by politicians, academics and other interested groups but it is usually thrown in as a fait accompli and assumed to be either a bad thing in itself or a bad thing because of its perceived effect on the levels of take-up of the associated benefit. So, for example, we read in the Labour Party manifesto that 'everyone is entitled to dignity in retirement' (Labour Party 1997), we are told by the Conservative Party Shadow spokesman on work and pensions that 'We will treat you with respect... we will free you from means testing... we will restore your dignity' (Willets 2004) and even the academic commentators when discussing the Pensioner Credit suggest without further explanation that 'this further extension of means-testing has important implications for the dignity of claimants' (Falkingham and Rake 2001). There is some confounding of the issues in the debate on dignity; the roots of the debate seem to emerge from a neo-liberal idea which equates dependency to a lack of dignity. However, this basic standpoint has, become slightly less pure and appears to have reached the point where the lack of dignity is not about being given money, but about having to ask for it or, alternatively and additionally, having to reveal anything about your personal circumstances in order to become entitled. That is to say, being given money by the state can be seen by some to be demeaning in itself but if you have to prove that you are poor first then that is doubly undignified. There is a comparative perspective here between the continental systems of 'social insurance' and the post-Thatcherite 'poverty safety net'

that exists in the UK. There are two clearly different rhetorical threads associated with these where one side is considered a legitimate and non-shameful lifetime smoothing of income stream and the other is considered to be a demeaning state handout. Nonetheless it is a self-validating truth that if both sides of the political spectrum announce that they wish to end the 'indignity' of the means-test then the means-test is something which takes away the dignity of those subjected to it. There are, using a very broad brush, two solutions proposed for the dignity issue, one can say that the Conservatives wish to end the problem by moving the issue out of the state and into the individuals' own hands, while Labour decided they could 'break out of the means test debate through.... tax benefit integration for pensioners.'[28] Labour's strategy puts benefits in the same mental pigeon-hole as taxation thus allowing a resource based allocation of benefits whilst making the collection of the information that is needed to do this as close to the similar exercise done for taxation as possible. The ultimate end of this process is what is called 'tax-benefit integration' which is an administrative as well as economic goal.

One of the central points pushed by the industry is also a key requirement of the governments economic juggling: the requirement to encourage saving. According to Darling, 'there is a fundamental fault in the system we inherited, saving should be rewarded, not punished [and] so the pension credit will, for the first time, reward the thrift of millions of people who have worked hard to save for their retirement' Furthermore, Labour intends to achieve this despite the microeconomic reality of muddled incentives with a tapered means test (described later). Darling also claims that 'the message is clear: whatever one can afford to put by, it will always pay to save' (Darling 2000: col 452). In fact there has been some criticism of the stance taken on this

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[28] Interview with Ed Balls, 10 February 2004

issue by the industry who are still not convinced that in the atmosphere of mistrust surrounding the previous mis-selling accusations that they can sell pensions safely under current policies.

## The pension credit policy
## Different views of the same animal

In contrast to the simplicity of an earnings link for BSP, the Pensioner Credit is an unusual policy that straddles the upper boundary of income support (MIG). The range over which the pension credit operates takes in those on non- or barely-supplemented BSP and extends up to those who are comfortably off.

> I said in the Budget that we wanted the beneficiaries of the new credit to be single pensioners with incomes of up to £100 and pensioner couples with incomes up to £150. I can now say to the House that pensioner couples with incomes below £200, and single pensioners with incomes below £135 – many millions of pensioners – will now receive this new pension credit when it is introduced. I can also tell the House that, while the pension will rise in line with inflation, the new pension credit will also rise in line with earnings every year.

*(Brown 2000b)*

This indexing decision means that because the Pension Credit, in the sense of a modified MIG, is higher than the BSP, everyone who is on it will get the mythical 'earnings link' referred to earlier.

It will be seen that the Pensioner Credit is many things to many people, but in its driest most technical incarnation it is an adjustment to the MIG which, above a certain point, removes benefit at less than £1 for each £1 of additional income. It is a tapered income-related benefit and consequently, as well as putting money straight into the pockets of pensioners over a fairly wide income band, it also affects incentives to save in a variety of ways. As the policy affects today's pensioners, this makes a complicated scenario the effects of which will be covered below, however, the implications do not stop there. The

### Figure 2.2: Illustrative gains from the Pension Credit in 2003/04 for a single pensioner
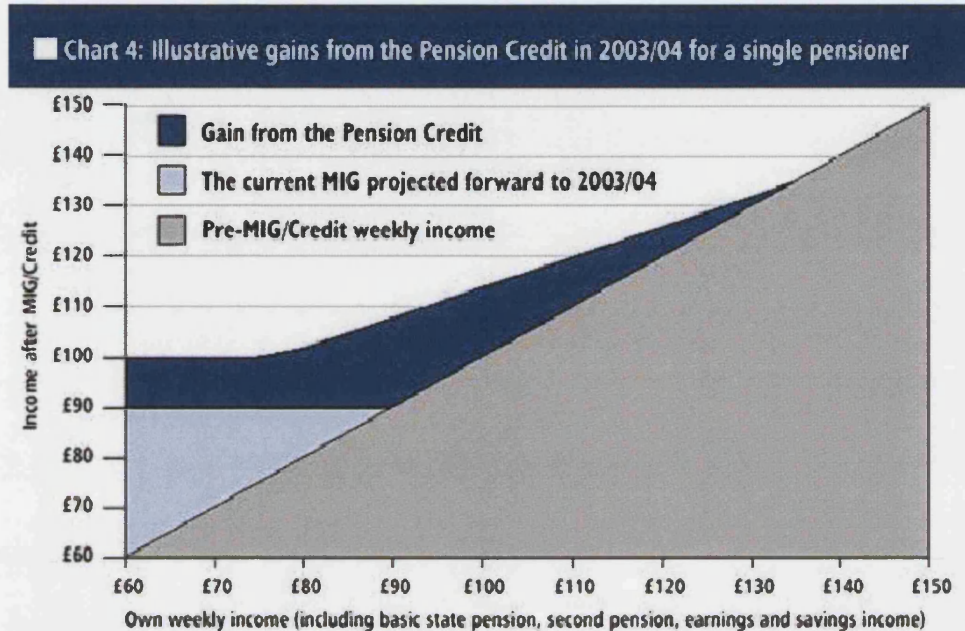


Source: DSS

Source: Department of Social Security (2000)

pensioner credit cannot affect current pensioner's incentives to save (it is assumed that pensioners are dis-savers), but it affects, through the message that it sends about the perceived direction of pensioner policy, the incentives to save for tomorrow's pensioners.

Many have tried to explain or understand Pensioner Credit and many have failed to give the answer that satisfied their questioner; there are a multitude of ways to present the fundamental issues each of which suits a different audience. The best description was from the assistant economist in the DSS working on the charts for the consultation document, who suggested that the pension credit could be seen as 'a MIG with a tail.'[29]

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[29] Conversation with J. Phipps, October 2000

***Figure 2.1: Total post benefit income broken down by source (the Pension Credit is the MIG plus the 'savings reward' constituting the Mig-with-a-tail)***
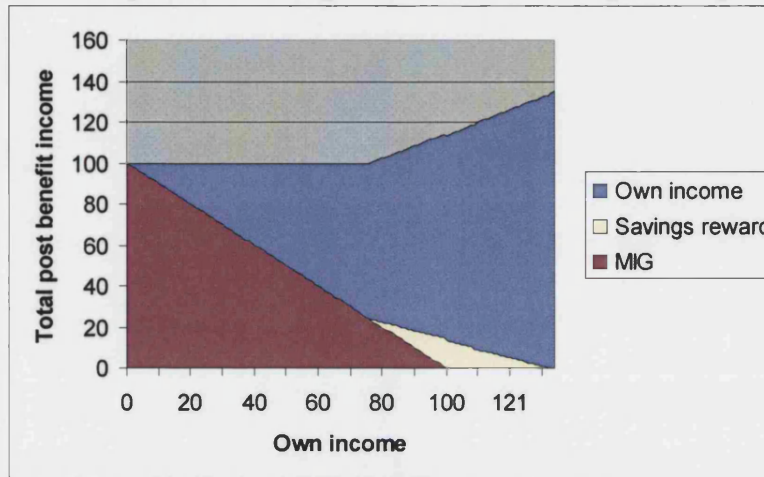


Note: based on figures from Department of Social Security (2000)

The chart that he finally prepared resembled Figure 2.1. Instead of those who have an income at the level of the income support cut-off (i.e. the MIG) and everyone above that point getting zero benefit, it tails off more gradually. The other way of looking at the policy (and the way that is preferred by the political actors) is that, rather than enhancing income support with a taper, it is a bolt-on 'savings reward' that goes to some already on income support, but is also payable to many who are not. This approach has the advantage of, rhetorically if not actually, keeping the pensioners further up the income distribution off the traditional income support benefit, which had become the MIG, as this kind of benefit is, as discussed above, often seen as demeaning. Figure 2.2 shows this perspective, with the original MIG and the pension credit shown in different colours.

Presented in this way the policy looks like good news. The point at which the pension credit starts to look like trouble is when it is seen not as how much is being given to people, but as how much is being taken away. In the analysis of IRBs there is a measure called the 'marginal deduction rate' (MDR). This measure shows how much benefit is withdrawn for every pound of additional income. With a simple non-tapered income

support benefit, such as the MIG, there is a 100% MDR, meaning that for every pound of additional income the benefit is taken away pound for pound. Other IRBs have different MDRs; housing benefit (HB) and council tax benefit (CTB) have MDRs of 65% and 20% respectively, meaning for CTB, for example, that if you increase your income by £10 you will only lose £2 of your benefit. Often these MDRs are represented by opponents of means-testing as being 'tax rates', these arguments imply that recipients of IRBs are being 'taxed' as they increase their incomes. Pensioners on income support (using the above Chart 2.1 as reference) whose pension was raised from £72 to £82 could claim they had been 'taxed' at 100%. Before the rise they had an income of £90; after the rise they had an income of £90 – their £10 has been 'taken off them' by the government.

That it was given in the first place by the government is presumably of little comfort. The problem with the pensioner credit is that while it reduces the MDR for many already on income support (those between the start point of the taper and the income support level) it means that many who used to face an MDR of zero will face a significant level of deduction on any additional income. The reason that this is perceived as a problem is not only that people feel this is unfair, or looked at more from a politicians point of view, that people may find this a something that they hold against a government that introduces it. There is also a problem with this approach in that it confuses, at best, and reduces, at worst, the incentive to save for a pension; calculations of future returns on current savings are complex enough, but with an MDR that extends up the income distribution to (in the chart) £140 per week for a single pensioner the decision faced by many would be, if they were to get only 40% of the benefit from any additional saving, whether they

are better off consuming in the present and living off the government in their

retirement.[30]

## Table 2.2: 'How the Pension Credit will work –gains for pensioners'

| Your original income | Single pensioners £ per week, 2003-4 Your Pension Credit | | Your post-Credit income |
|---|---|---|---|
| | Guaranteed income top up | Savings credit | |
| 77.00 | 23.00 | - | 100.00 |
| 78.00 | 22.00 | 0.60 | 100.60 |
| 79.00 | 21.00 | 1.20 | 101.20 |
| 80.00 | 20.00 | 1.80 | 101.80 |
| 81.00 | 19.00 | 2.40 | 102.40 |
| 82.00 | 18.00 | 3.00 | 103.00 |
| 83.00 | 17.00 | 3.60 | 103.60 |
| 84.00 | 16.00 | 4.20 | 104.20 |
| 85.00 | 15.00 | 4.80 | 104.80 |
| 86.00 | 14.00 | 5.40 | 105.40 |
| 87.00 | 13.00 | 6.00 | 106.00 |
| 88.00 | 12.00 | 6.60 | 106.60 |
| 89.00 | 11.00 | 7.20 | 107.20 |
| 90.00 | 10.00 | 7.80 | 107.80 |
| 91.00 | 9.00 | 8.40 | 108.40 |
| 92.00 | 8.00 | 9.00 | 109.00 |
| 93.00 | 7.00 | 9.60 | 109.60 |
| 94.00 | 6.00 | 10.20 | 110.20 |
| 95.00 | 5.00 | 10.80 | 110.80 |
| 96.00 | 4.00 | 11.40 | 111.40 |
| 97.00 | 3.00 | 12.00 | 112.00 |
| 98.00 | 2.00 | 12.60 | 112.60 |
| 99.00 | 1.00 | 13.20 | 113.20 |
| 100.00 | - | 13.80 | 113.80 |
| 101.00 | - | 13.40 | 114.40 |
| 102.00 | - | 13.00 | 115.00 |
| 103.00 | - | 12.60 | 115.60 |
| 104.00 | - | 12.20 | 116.20 |
| 105.00 | - | 11.80 | 116.80 |
| 106.00 | - | 11.40 | 117.40 |
| 107.00 | - | 11.00 | 118.00 |
| 108.00 | - | 10.60 | 118.60 |
| 109.00 | - | 10.20 | 119.20 |
| 110.00 | - | 9.80 | 119.80 |
| 111.00 | - | 9.40 | 120.40 |
| 112.00 | - | 9.00 | 121.00 |
| 113.00 | - | 8.60 | 121.60 |
| 114.00 | - | 8.20 | 122.20 |
| 115.00 | - | 7.80 | 122.80 |
| 116.00 | - | 7.40 | 123.40 |
| 117.00 | - | 7.00 | 124.00 |
| 118.00 | - | 6.60 | 124.60 |
| 119.00 | - | 6.20 | 125.20 |
| 120.00 | - | 5.80 | 125.80 |
| 121.00 | - | 5.40 | 126.40 |
| 122.00 | - | 5.00 | 127.00 |
| 123.00 | - | 4.60 | 127.60 |
| 124.00 | - | 4.20 | 128.20 |
| 125.00 | - | 3.80 | 128.80 |
| 126.00 | - | 3.40 | 129.40 |
| 127.00 | - | 3.00 | 130.00 |
| 128.00 | - | 2.60 | 130.60 |
| 129.00 | - | 2.20 | 131.20 |
| 130.00 | - | 1.80 | 131.80 |
| 131.00 | - | 1.40 | 132.40 |
| 132.00 | - | 1.00 | 133.00 |
| 133.00 | - | 0.60 | 133.60 |
| 134.00 | - | 0.20 | 134.20 |
| 135.00 | - | - | 135.00 |

Source: Department of Work and Pensions (2001a)

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[30] This £140 ceiling could be higher if they have additional income support entitlement for, say, reasons of disability or caring responsibility

From a dry and strictly logical point of view such a decision on the part of a worker saving for retirement would be folly, given that the Secretary of State for Work and Pensions has the authority to amend the levels of income support and the pension credit taper at any time through secondary legislation. However, no politician could ever risk using this exposé of their power to intervene as an argument and in any case the taper still adds to the uncertainty of pension planning.

The presentation twists go even further, for example in the Pension Credit White Paper (Department of Work and Pensions 2001a) the tapered benefit is split into the 'guaranteed income top up' and the 'savings credit', which emphasises the generosity of the new policy and focuses the attention on the 'savings credit' element as, by a happy mathematical necessity, the old part 'guaranteed income to up' only decreases whereas the 'savings credit' starts off modestly, peaks and then drops off quite slowly as seen in Table 2.2.

In strict legislative terms, of course, this is as fictional as splitting the single amount of the tapered benefit in any other way for political presentational advantage. However, with a historical perspective over the reasoning and development of the policy it does have some moral foundation.

Alongside these economic issues there was also a parallel development on the administrative side which was intended to deal with the questions surrounding 'dignity' and also to improve the service to pensioners for its own sake. Led by Alastair Darling at the DWP[31] the purpose was to transform the entire range of contacts that those of pensionable age have with the DWP into a new and separate 'Pensioner Service' to enable a clean break from the link with poverty and handouts that were seen to taint

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[31] Interview with Edward Miliband, 1 May 2004

DWP's work with the elderly as well as transforming in some way the means test to be a more acceptable form of information gathering.

> The second change is that we will make it easier for pensioners to get the money to which they are entitled, and get rid of the weekly means test. Now, there are some who weep crocodile tears at means testing for pensioners, but who did nothing about it for 18 years. We will.
> At present, we ask all taxpaying pensioners to tell us about their income just once a year, if that. However, we ask poorer pensioners to tell the benefits system about changes every week. There is no good reason for that. The credit will be based on an income assessment that is more like the tax system.
> When one retires, a calculation has to be made about one's basic state pension, based on the contributions that one has paid. In the future we will be able to work out at the same time how much a pensioner is entitled to under the minimum income guarantee and the pension credit. We know that most pensioners have stable incomes, so after the initial award at retirement, adjustments will need to be made only when circumstances change significantly. We are making it easier for pensioners to claim their entitlements, by introducing a dedicated new service for pensioners. People will be able to claim by phone, which will give pensioners the better service that they want.

*(Darling 2000: col 454)*

## The policy process

> From 1997 onwards we were saying 'at what point can we do the pension credit?' And the fact was we couldn't until the second parliament... [when] the system could deal with it.

*Interview with Ed Balls, 10 February 2004*

## Personnel

The process broke down into at least two phases; the 'what will achieve our aims?' phase and the 'how are we going to make that thing happen?' phase. A quasi-phase straddled these two which is referred to by many interviewees as 'setting the parameters', which leads from a specification period towards the end of phase one into an early high-level version of phase two. The personnel involved in these phases are somewhat distinct for two reasons. Firstly there was an unconnected changeover in staff that happened coincidentally in several places within a short space of time. Secondly there was the intentional engagement and disengagement of certain actors due to the nature of the work changing: the policy director in charge of pensions at DWP, Paul Gray, for

example, was 'more involved in the early stages... what are the big issues, how are we going to go about it [followed by] lesser engagement as the policy matures.'[32] Certain characters also played unexpected roles. We have already mentioned that in the top policy advice job at the Treasury there was, unprecedentedly, a political adviser, but on the other hand, after the election the Secretary of State at DWP did not have any Special Advisers at all for the period from June to October 2001and even after October none explicitly involved with this policy[33] so we see career officials supporting the Minister in the absence of such advisers. They go to meetings to perform all the functions that the SpAds might normally be expected to carry out except one: the Private Secretary of Alastair Darling explains that 'when it got party political I just absented myself from the discussions.'[34] Career civil servants are bound by convention and code not to carry out any party political acts and therefore this is one key way in which they cannot substitute wholly for a SpAd. In addition it is worth noting that the DWP is one of the largest administrative departments in government and the Permanent Secretary is supported by senior officers who have responsibilities that are easily the equal of some of Permanent Secretary rank; in this case Paul Gray, who was at the time in the Grade below Permanent Secretary, was the policy chief in this area. The involvement of the Permanent Secretary was that her policy chief went to her for 'reporting on progress... bilaterals'[35] but that she had no explicit hand in policy development.

The ministers also displayed particular patterns of involvement that are not always typical or need further explanation. As already mentioned above, this 'big ticket' policy was being led in Treasury by the Chancellor due to its AME component and the fact that

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[32] Interview with Paul Gray, 27 November 2002

[33] Interview with Neil Couling, 20 November 2003

[34] Interview with Neil Couling, 20 November 2003

[35] Interview with Paul Gray, 27 November 2002

it made an important line in the budget calculations, but one might have expected that the Chief Secretary to the Treasury, Andrew Smith, would have had some more involvement on the issues that surrounded the expenditure on the proposed Pensions Service, which clearly came under 'Departmental Expenditure' and therefore within his remit. The situation, though, was different from the usual pattern of Treasury – Department relations. The Treasury were happy to spend money for the reasons outlined below and so the Chief Secretary was not required to play the usual 'bad cop' role. In the DWP the ministerial pattern was determined by the Treasury configuration: it was known that in the end-game Alastair Darling would be agreeing the policy strands with Gordon Brown and so, as these two worked together very well, Darling led the policy.[36] Consequently, it would only be Darling who went to Ministerial level meetings with Treasury, as Brown is famed for working well in small groups. The other Ministers were sometimes asked to reflect on some detail of the policy, but their involvement was not great. Of course, all of these statements are a broad brush aggregation of what was discovered from the interview data. To list all the individual recollections of contacts between ministers and others would be both tedious and uninformative, it is in this kind of arena that we will seethe advantage of the NFP representation that allows us to produce the pattern of relations for any actor in the network and also sophisticated aggregate statistics that measure their centrality and potentially other measures. For example we will see that while Gordon Brown is far from having the most extensive set of contacts he is extremely central in the UK network; in structural terms being ranked 3 (see Chapter 9).

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[36] Darling was a former Chief Secretary and, interestingly, Andrew Smith the Chief Secretary at the time went on to follow Darling into the Secretary of State role at DWP when Darling was sent to calm the waters at the Department of Transport after the Stephen Byers fiasco.

## Prehistory

The inception of the policy, or at least the reasons behind the policy took place before the Labour party came to power in 1997. After the Social Justice Commission report in 1994, the ideas started to take shape and Gordon Brown, then the Shadow Chancellor, made a speech at the party conference in 1994 that talked about the tax-benefit integration for pensioners.[37] From then on the strategy was to move on the poorest pensioners. When the Labour party was elected it became clear to them very quickly that the system did not have the capacity to cope simultaneously with the reforms they wished to make on families and children and those for pensioners so they made a sequencing decision to tackle the families and children policies first.[38] On pensioners there was the introduction of the MIG, which did something for the very poorest (see above), but 'only as a route towards the pension credit.'[39]

## The process

While considering the pension credit policy process we also have to keep in mind that this was a high-spending policy and in competition with a widely popular alternative, that of linking the BSP to earnings. In fact, at the time of the 1992 General Election, the Labour party had made a £5bn commitment to such an earnings uprating policy but had found it wanting in terms of the outcomes they desired.[40] We have seen above that many of the changes made to BSP and other pensioner benefits in Labour's first term were, although not evident to anyone without a direct line to Brown's inner circle, part of a wider strategy that had the pensioner credit at its heart.

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[37] Interview with Edward Miliband, 1 May 2004 and Interview with Ed Balls, 10 February 2004

[38] Interview with Ed Balls, 10 February 2004

[39] Interview with Ed Balls, 10 February 2004

[40] Interview with Ed Balls, 10 February 2004

Despite a massive amount of work and political engagement in the pension credit, the policy process was fairly logical and calm. This is probably a reflection of the wait that had been endured by the Brown, Balls and Miliband trio[41]: they had been looking for the moment to get the policy process into action and they were to a large extent working to get everyone to play their part to ensure that what emerged was a complete, workable and affordable policy that met their aims. The question was kept live both around Treasury and through the channels to Number 10. They admit to having kept a determined grip on the process[42] but there is no suggestion that this was control-freakery as the interviews show that some of the busiest and most influential actors were ignorant of this hidden hand and tended to play their part as they did in any one of innumerable policy making vignettes: it emerges from many of the interviews and from my own observations of the policy process that the determination of Brown's political team and the timing issues were not generally known, or if they were suspected, the way that things fell together and the history that caused this to happen were not evident. It also appears that Darling's thrust on his[43] idea for the 'Pensions Service' and the general tax-benefit integration steps that formed the administrative and operational side of the policy were being considered independently.

The coming together of the Pension Credit in its economic sense and the Pension Service, which made the means testing aspects politically acceptable, opened the door to the Treasury and the DWP having interests that were aligned. Consequently, while DWP were happy to get things done, even though they were partly at the behest of the Treasury, the Treasury for their part were happy to part with money allowing DWP to

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[41] Interview with Ed Balls, 10 February 2004

[42] Interview with Ed Balls, 10 February 2004

[43] Interview with Edward Miliband, 1 May 2004

make the changes needed. The process, for the above reasons, was relatively closed and coherent and people worked together (for the most part) in effective formation. The process has been described by several of the actors as having had two phases with somewhat distinct personnel due in part to normal changeovers of staff responsibilities occurring by chance at the same time but also as a result of the differing nature of the work as the process progressed. The first phase had its initial steps before 2000,[44] even though the November 1999 PBR did not reveal any of the work. A broad shape for the policy was by this time beginning to emerge from a core team of special advisers, a small number of civil servants, some analytical input and a steering input from ministerial level. This grouping examined the policy objectives and potential mechanisms. A good deal of policy analysis was going on; the number of recipients that would be affected by different potential policies, the ways in which an instrument might be based on, or exclude, different kinds of income, and, on the political and operational side, how and when given policies could be introduced and what the potential arguments could be against certain implementations. Many of these factors that in the later stage would be 'the parameters' but at this early stage were merely a way, frequently rough and ready, of trying to find out was was realistic and what was impossible. All through this process it was borne in mind that the counter proposal always waiting to be thrown at any potential measure was that of linking the BSP to an earnings measure.

Even among the fairly small group of people that had been working for several months looking at issues surrounding an instrument that would meet the objectives of what was to become the Pension Credit, there was still some element of surprise when, with little

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[44] Interview with Edward Miliband, 1 May 2004

flesh on the bones, the Chancellor of the Exchequer revealed in the March 2000 Budget

speech few details but a considerable intention:

> A strong civic society takes seriously its obligations to our elderly: to the very poor pensioners whom we must help out of poverty; to those just above benefit levels whose lifetime savings should not – as in the past – be a barrier to securing a better retirement income; and to those who, while better off, are on fixed incomes.
> The Secretary of State for Social Security is to launch a consultation on how, for the next Parliament, we can develop a new pensioners credit designed not only to lift the poorest out of poverty, but also to do more for those with modest occupational pensions and those with savings who should not be penalised for having worked hard all their lives and saved for their retirement.
> Under the framework on which we will consult, an older pensioner with income, for example, of less than £100 a week, or a couple with less than £150 a week, would qualify for a credit to raise their income.

*(Brown 2000a)*

The parameters showed, with hindsight,[45] as Ed Balls is quoted as saying above, the

Government were now free under their own rules and reasoning to put up the level of

BSP, making what were, at the time, somewhat surprising parameters of £100 and £150

entirely feasible.

The work continued after this in a similar vein of exploring the potential shape that a

policy would have, whilst leaving the specific details vague. Some tricky problems were

encountered during this phase as policies became more solid and consideration started

about how they might mesh in with the existing, already complex, set of benefits that

pensioners may be entitled to. Civil Servants in the DWP operational teams involved in

the policy formation for pensions comprised of the 'policy team' and the 'analytical

services'. The analytical services cover both the strict economics and policy analysis.

The economic side includes aspects such as the technical efficiency and social insurance

elements of pensions, as well as cost forecasting. The policy analysis side relates to

issues such as the potential redistributive impact and the numbers that would be affected

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[45] This was not so clear to me when I was working on this policy as an analyst at the time.

by the policy, i.e. gainers and losers.[46] The policy team look at the broader issues including implementation practicalities, the legislative aspects of the policy and the broader political issues. It is rare, however, that anyone working in the policy team would not be capable of appreciating the economic aspects of such a policy, since those that could not would be likely to end up being sidelined. One of the key jobs of analysts is to be able to explain complex technical issues to generalist civil servants and to ministers who are, more often than not, lawyers by training. In the same way, if not more so, that generalists have to be economically literate, economic advisers and policy analysts (mostly the same people) do not retain a place at the Minister's table, or more importantly the sofa, if they do not have finely tuned antennae for political concerns.

By November 2000 the Treasury were starting to be happy with the shape of the policy and, for the political end, 'the question was at what point the system could deal with it.'[47] A policy outline that looked very much like the final Pension Credit had emerged and was presented in the consultation document (Department of Social Security 2000) that came out on the day after the pre-Budget report. In the pre-Budget report by the Chancellor of the Exchequer on 8 November 2000 the policy was trailed, but no thunder was stolen:

> It is now time, ... to raise pensioner incomes by a tax and benefit reform that will have as its foundation the basic state pension, and will have as its building block – like the working families tax credit – a new and generous pension credit.

*(Brown 2000b)*

The next day, on the 9 November 2000, the consultation on Pension Credit was announced in the Secretary of State for Social Security's annual uprating statement and the framework policy saw the light of day in public for the first time.

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[46] Although it is rarely that any policy admits to having losers

[47] Interview with Ed Balls, 10 February 2004

Today, I am also publishing a consultation paper on the new pension credit. Copies will be available from the Vote Office following my statement. ... Our aim is both to end pensioner poverty and to ensure that all pensioners share in the rising prosperity of the nation.

... For those who come within the scope of the tax system, we are determined to give them a fairer deal. ... As a result, more than 3 million pensioners will gain from that.

Secondly, we inherited a situation in Britain—the fourth largest economy in the world—in which there were too many pensioners living in poverty. Poverty has no place in a civilised society. That is why the Government were right to make ending pensioner poverty their first priority. It is also why we introduced the minimum income guarantee, which is already helping nearly 2 million pensioners.

... The next stage of our reforms, however, is to help the millions of pensioners who worked hard all their lives, saved for their retirement and rightly believe that they are being punished, not rewarded, for their thrift.

... There is therefore a clear choice for the future. We are increasing the winter fuel payment, not abolishing it. We are building on the basic state pension, not undermining or privatising it. We are tackling pensioner poverty, not ignoring it, and we are rewarding saving, not penalising it.

*(Darling 2000: cols 451-455)*

In the Secretary of State's speech, despite some good figure quoting, few parameters were even hinted at being fixed for the new policy, the only promise is that saving will be rewarded and there was some hint at the political direction for getting the balance of benefits and numbers: '5.5 million pensioners—that is, half the pensioner households in this country—will be better off as a result of the new credit' (Darling 2000: 453).

There were still many problems left to be considered about meshing with the existing system which threw up technical problems such as how to treat those having additions for elements such as disability allowances or carer's allowances, the interface with HB and CTB (which if unaltered would for many have taken back up to 85% of gains) and the issues around how capital should be converted into income for the purposes of assessment. As well as these issues to be 'solved', which were often of little concern to the politicians except in that they wanted to hear that they had been fixed, there was the much more sensitive issue of parameters. These parameters would be what defined the policy, not in detail, but in its relative effect on the recipients, and as the recipients are

also the voters, this was an important area. The key parameters were, in technical terms, the level at which the standard MIG would be set, the level at which the 'savings credit' would start and the deduction rate, i.e. how quickly the benefit would be taken away for each pound above the MIG level. The whole understanding become complicated because, as described above, there are various ways of describing the Pension Credit and for each of these ways there are several direct transforms of the parameters that can be used. Not only this, but there are also derivative measures that may well be more important in policy terms which can be used as parameters leaving the analysts to work back to the actual parameters, which, if they turned out to not look good, suddenly turned back in to the important parameters again. Darling's 'half the pensioners' promise above, for example, still leaves considerable scope for the amount that the last pensioner will get, the maximum extra any pensioner will get and the scope for helping the poorest (via the MIG) relative to the least poor. In fact, this control over parameters comprises exactly what the political team at the Treasury had been wanting all these years. Unfortunately with such an interdependent system there were still trade-offs to be made and the working through of all these possibilities and downsides was not a quick process. However the political pressure was still considerable, especially with the General Election coming, the 2001 Budget was to be the platform for re-election promises. Much internal and interdepartmental technical work went on and parameters started to be made solid as the potential for fitting them within the Budget envelope became clearer.[48]

The Budget statement by the Chancellor, Gordon Brown was on 7 March 2001 and he reiterated the commitment, having made some hikes in the MIG already, with higher guarantees than his previous Budget statement and a promise of the earnings link

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[48] Interview with Ed Balls, 10 February 2004

(although not specifying quite which parameter or parameters this would refer to) along with a good piece of analysis that, due to the features of the taper and the fixed points chosen, gives anyone that is on the Pension Credit a bigger annual cash increase than the BSP earnings link would have:

> Since November, we have been consulting on our new pension credit. It will be introduced in 2003. Pensioner couples with incomes below £200 and single pensioners with incomes below £135 a week—many millions of pensioners in our country—will receive the new pension credit, which will reward rather than penalise their saving. It will rise in line with earnings every year and in this way, it will give recipients more than even the earnings link in the basic state pension would have given them.

*(Brown 2001)*

Following the General Election on 7 June 2001when the Labour Party was once again returned to power, the preparations went into a different gear. The parameters had to be finally fixed – something that was becoming essential so that the message could be broadcast accurately to the party ahead of the Parliamentary phase. The Pension Service aspects had to be made watertight to fix the political defence for what would otherwise be portrayed by opposition as a weakly disguised extension of means-testing and the nuts and bolts of the policy had to be fixed for feeding through to lawyers and, eventually, through to Parliamentary draughtsmen. It was at this stage that the personnel changes started to happen; the more senior officers and those that had worked on the big picture policy started to drift away and there were coincidental changes in the involved personnel at both Treasury and DWP. Meanwhile, a new raft of actors came in who were needed to go through the detailed but essential aspects of everything from the exportability of the benefits under European law through to the implications of the interface with long-term hospital care for the elderly. This was the start of the 'bill team' configuration. Decisions continued to be made, but rather then questions about architecture, it was about interior decoration. The political end continued to be involved

as they were aware that when you show your construction to someone, they do not see the solid foundations, they only like or dislike the colour of the paint. The 'bill team', which still needed to interface with analysts to ensure that small changes to the mechanisms did not cause major problems with the economics, worked through the summer to produce this case study's final output.

For completeness it is interesting to see the stages that the policy took after the final 'policy output': on the 28 November 2001 the White Paper was published outlining the Government's proposals for the Pension Credit and the State Pension Credit Bill was introduced to Parliament (House of Lords, 1st reading), followed the Legislation 2nd reading House of Lords on 18 December 2000. On the 16 January 2002 there was a somewhat unprecedented (in this writer's experience) publication of costs and more detail on the policy in 'The Pension Credit: long-term projections'. This unusual step showed a very wide range of potential costs ranging over 50 years from £1bn to £26bn. The 12 February 2002 – 23 April 2002 saw the legislation go through further parliamentary stages and finally on 25 June 2002 there was the Royal Assent for State Pension Credit Act 2002.

# III. French pension policy case study

This chapter consists of a narrative account of the French policy process. The case study examines the long development of the *Loi Fillon* on pension reform, which took its concrete form when adopted by the *Conseil des Ministres*. This agreement allowed it to go forward for debate by the legislature. The period covered runs from early 1999, a nominal starting point being the publication of the Charpin Report (Charpin 1999), through to May 2003. Although this chapter follows the same broad format as the UK case study there are some differences in emphasis due to the differing natures of the policy process and the policy itself.

## Case study timeslice: a brief sketch

Pension reform in France could be easily dismissed as the typical story of retrenchment of welfare provision under pressures that are to be seen all around Europe and further afield: in extremely brief summary there is increasing demand for welfare, shrinking resources to provide it and a widespread disinclination to maintain current levels of support due to either spreading neo-liberalism or commitments to fiscal promises at the European level.[50] This picture is true to a large extent in our specific case but there is a subtly French flavour to the usual recipe in the pension reform pressure cooker.

At the point where the case-study timeslice starts, March 1999, expectations are running high and the Charpin Report, commissioned by Prime Minister Lionel Jospin of the *Parti Socialiste* (PS), is widely expected to be a key step in the policy process. The Jospin government had been elected in 1997 and were working under the conditions of

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[50] See, amongst others, various chapters in Pierson (2001).

*cohabitation* with Right wing President Chirac. To some extent, Charpin cannot succeed because all the actors have their own ideas about how the report will affect their strategies and some are bound to be disappointed. The risks are also high as, in economic and fiscal terms, doing nothing is seen by most[51] as not being an option and half-measures would simply mean another painful reopening of the debate. For the opposition (at this point the Right) to cause too much trouble would also be odd, firstly as they may then have to deal with the problem themselves and secondly, because politically speaking they should support reform more than the socialists. Furthermore, at this time the recent memory of the fall of the Juppé Government in December 1995 over the same subject served as a superlatively clear warning about how the wrong handling of such a sensitive topic could lead quickly and directly to electoral disaster (Natali and Rhodes forthcoming 2004: 12; Palier 2002: 7). There is a clear difference here between the UK and the French cases. In the UK the Government is trying to implement a policy strand that they have been wanting to introduce since before their 1997 election and hence avoid the tricky and expensive 'earnings link' discussed in Chapter 2. Overall, the UK Labour party is hoping for an electoral bonus. In the French case, by contrast, the government is looking for a way to implement a policy that cannot be avoided, but can only be managed as well as possible to avert disasters both in fiscal and electoral terms. The French socialists are looking to avoid a slip-up.

On publication of the Charpin Report it became clear that, while supporting the preferred positions of a few actors by offering proposals around which general resentments could be focussed, the report was to prove more of a stumbling block than a stepping stone. The common ground to be found between the key actors of Government,

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[51] Notable dissenters include Jacques Rigaudiat, the social policy adviser of Jospin, and the Teulade Report (referred to below): both question the gravity of the fiscal situation.

the employers body (MEDEF) and the unions was very small and in the context of the

Charpin proposals, most notably the increase in the contribution period, the possibility

for direct progress was minimal. The next visible step in March 2000, after some

relatively invisible (at least in term of the contemporary accounts – the contact was more

clearly visible when linking the interviews to the constructed NFP representation)

'dialogue with the social partners'[52] and a considerable amount of internal political

activity within the Jospin government,[53] was the establishment of the *Conseil*

*d'Orientation des Retraites* (COR) an independent body under the aegis of Prime

Minister Jospin who was relying on this body to pave the way for him to put pension

reform at the top of his political agenda assuming his re-election in 2002.[54] The work of

the COR was very public, broad-based and, apart from MEDEF, the employers

representative body who refused to take part (Sterdyniak, 2002),[55] brought all the parties

concerned to some kind of agreement. The other side of this coin is that the COR was

politically toothless and, being charged with finding consensus, could be said to have

avoided some of the essential issues concentrating merely on producing *documentation*

and watching what happened elsewhere.[56] The COR finally produced its report in

December 2001 leaving little time until the run-up to the legislative elections got under

way for July the following year. Both of the main political contenders in these elections

then promised that pension reform would be a priority for them (Leparmentier and

Malingre 2002). When the Raffarin government was appointed after the Right's strong

showing in the elections the incoming PM made clear almost straight away that he was

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[52] Principally the unions and MEDEF.

[53] Interview with Pierre-Louis Bras, 6 April 2004. Interview with Jacques Rigaudiat, 8 April 2004

[54] Interview with Jacques Rigaudiat, 8 April 2004

[55] They later got involved after the law discussed in this case study had been adopted (Jolivet 2003b).

[56] Interview with Florence Legros 6 April 2004.

in a hurry to deal with the pension reform dossier. His appointed Minister in Social Affairs, François Fillon, had to take the policy on while he was still finding his way around the Ministry and this haste affected the policy process and perhaps even the outcome of the process, due to the inflexibility in the Government's bargaining position that resulted from a self-imposed deadline and from the unavoidable immaturity of the work on the dossier by new actors on the Raffarin Government side.

The Raffarin government pulled together their reform package using much of the groundwork and shared understanding that had come from the Jospin years and they maintained the COR. The policy that they adopted was in many ways following the direction proposed in the Charpin report. They also launched an intensive communications strategy, with a budget reckoned to allow up to €15 million using outside consultants and actors from the pinnacle of the French business world to underpin the political message both within the NFP, to the Government's own employees and in the wider public domain through various media (Aeschimann 2003; Balbastre 2003).[57] Whilst not making the mistake that Juppé had, that is to say developing an entire proposal behind closed doors and presenting it as a *fait accompli* (Natali and Rhodes forthcoming 2004: 13), François Fillon did come to the table with a complete proposal and, with his communications strategy already in full swing, attempted to 'sell the policy' to the social partners. He did not marginalise the unions as Juppé had, but he still managed to rub them up the wrong way by being ambivalent about exactly what the process was that he was asking the social partners to join in with and by keeping his cards close to his chest. Not only did this key government player not fully explain the rules that he was playing by but, at two minutes to midnight just as the

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[57] Interview with Jérôme Paolini, 4 December 2003

game was about to finish, there was an extra player that came into the reckoning. The Prime Minister, undermining to some extent his minister or, from another point of view, exercising his right to arbitrate, called in the leader of the union that was known to be ready to agree to the proposals and made concessions that he, the PM, had not authorised his minister to make (Algalarrondo 2003). The Government was happy now to go forward even with three of the five main unions still not backing the plan. However the broader repercussions are still unclear. The question still remains whether Raffarin managed to win enough of the hearts and minds in France to be able to follow similar lightly-played yet strong-arm tactics again. Future reform either on pensions or other policies in the French public's beloved area of social protection could now completely jeopardise the Right's electoral chances or, what may be worse in the French political arena, ruin their chances of any unions ever coming on board in the future.

## General political environment
## President and Prime Minister

President Jacques Chirac was in office during both of the governments that had a hand in the direct policy development leading to the Loi Fillon. As such it would seem to be important to assess the impact of the President during these two governments and to what extent he was involved in the process. The relative powers of the President and the Prime Minister in France have been shown to vary depending on whether there is *cohabitation* or not (Hayward and Wright 2002): under *cohabitation*, the President has the Prime Minister forced upon him as the leader of the biggest block in Parliament because this is not his party. It is generally accepted that the Prime Minister would be much less powerful when he has an opposition President breathing down his neck and this is especially true when that President is one of the Fifth Republic variety who has

relatively strong powers and, until 2000 had seven years in power with a possible seven

to follow if re-elected.[58] However there is also a corresponding lack of control on the

President's part as, unlike with his own party, his power when dealing with an

opposition Prime Minister cannot be asserted through alternative channels and he is

forced to follow a restricted set of institutional interactions and then only in the areas

prescribed by the constitution, which excludes pension policy. When not under

*cohabitation* conditions the President notably has *de facto* as well as *de jure* powers to

hire and fire Ministers. There are exceptions to this, however, as Michel Rocard was

proud to have become Prime Minister not because he was 'chosen' by Francois

Mitterand, his own party's President, during the period when the PS had both the

Presidency and majority in the *Assemblée*, but because Mitterand 'was forced to accept'

Rocard as the party leader. For the first Government in this case study, which was the

Lionel Jospin government of the PS ('Socialists' or 'the Left'), the *Gaullist* ('Right')

President Chirac was in the position of *cohabitation*. For the second government, being

the first incarnation with Jean-Pierre Raffarin as PM and labelling itself UMP (thus

putting itself within the Gaullist tradition),[59] Chirac was in a very different position as

this party, his party, had the majority in the legislature. In this situation he asserted his

powers and appointed as PM someone who was not substantially involved in national

politics previously (République Française 2002) and is very much seen as Chirac's man

(Bronnec 2004; Schneider 2005). He continues to keep Raffarin in the top position

although gradually he finds himself in a 'Rocardian' trap as the party starts to produce a

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[58] In September 2000 a reform to limit the Presidential term to five years was introduced, partly to limit the possibilities for *cohabitation* (Buckman 2004 ).

[59] The politics of the right wing in France is over-complicated by the fact that on a regular basis it reinvents itself in name, often due to personality politics. Currently the main party is the *Union pour un mouvement populaire* (UMP), which consists of the former *Rassemblement pour la Republique* (RPR), most of the Union pour la democratie francaise (UDF), although there are still around 30 seats of the Assemblée held in this name, and Democratie liberale (DL) (Economist Intelligence Unit 2005).

groundswell of support in favour of rising star Nicolas Sarkozy. Despite Chirac's famed

animosity towards Sarkozy[60] he cannot ignore him and, after the period of the case study

in this thesis, he appointed him to be Minister of Economy and Finance.[61] It would be

interesting to speculate on how much stronger the role of Bercy (the Ministry of Finance)

might have been in the policy process we are considering if this pressure had already

produced such a result. Aside from hinting at the effect of internal balance of power

issues outside *cohabitation* situations, what emerges from this case study is that the

Jospin government had considerable freedom to approach the pensions question in terms

of political will, at least in terms of constraints from the President, while the Raffarin

government was tied into the agenda set by the powerful President upon whose

patronage they were reliant.

## The 'cabinet' system

In terms of policy formation, especially on a topic such as pension reform that is both

technically complex and politically charged, the role of the *cabinet*[62] is more vital than

ever in the development of policy. The French cabinet is a group of civil servants who,

usually, have some publicly asserted political conviction or other attachment and who

'make the link between the two worlds of policy and technocracy.'[63] The cabinets differ

in size depending on the demands or prestige of the Minister involved, for the immediate

period preceding the adoption of the *Loi Fillon* the PM's cabinet consisted of some 60

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[60] Which started when Nicolas Sarkozy supported Balladur, one of Chirac's competitors, in the Presidential Elections.

[61] Later he made Sarkozy choose between this post and being head of the UMP – a strictly party based post – Sarkozy chose the UMP as his powerbase.

[62] The general usage of the word cabinet in the French language illuminates the concept in politics to be not be as special as it may seem. The practice of a lawyer, a dentist or a consultancy company does not have a *bureau* as would a car hire company, they have a *cabinet*. In politics it is basically the office surrounding a Minister. It does not carry any of the meaning of the UK term in politics. This chapter will not use italics any more for this word, as although it is French it is too common to italicise yet makes no sense if it is translated. The reader is advised to pronounce it in their head in the French way.

[63] Interview with Pierre-Louis Bras, 6 April 2004

advisers, that of Fillon in 'Social Affairs, Work and Solidarity' had around 24 and, as a comparison, the Minster for Transport at that time had twelve (Les Cabinets Ministériels 2003). The presence of a closely knit team of politically committed[64] advisers makes an interesting contrast to the UK where the majority of advisers are neutral civil servants with a very small number of political advisers, although, as discussed in the previous chapter, the neutral civil servants cannot operate effectively without political antennae any more than could a member of a French Minister's cabinet. Furthermore, in France the situation is not without shades of subtlety as the title *Conseiller auprès du Ministre* corresponds roughly to the post of special adviser in the UK while the rest of the army of advisers in the cabinet are more concerned with their individual dossiers in a similar way to a UK civil servant who finds themselves, for a variety of non-political reasons, in the ministers office on a regular basis.[65] The ministers and cabinets hold a strong symbolic value in terms of power and influence which is lacked by the *administrations* (the permanent staff of the ministries).[66] However the cabinet is seen in general as less competent than the *administration*,[67] which is probably due to the element of personal attachment which means that they circulate more through policy fields and do not gain the same depth of experience as members of the *administration*. In this case study the fact that everyone was new to their roles, if not indeed to the whole sector, contributed to some weakening of the Governmental hand.[68] There is another linked problem in the cabinet based system and that is the problem of duplication of work. Each increasing

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[64] This could read 'more or less politically committed'. I learnt during the interviews for this case study that there is a great range in the political commitment of those who work in the cabinets and this is true all the way up to the highest posts.

[65] Interview with Jérôme Paolini, 4 December 2003

[66] Interview with Michel Rocard, 19 December 2003 and also hinted at in interview with Stephane Brimont, 2004

[67] Interview with Michel Rocard, 19 December 2003

[68] Interview with Solange Morgenstern, 5 December 2003

level of 'political authority' redoes the work of the level before; the minister's cabinet redoes the *administration's* work, the PM's cabinet redoes the work of the ministerial cabinet and then the Elysée[69] redoes everybody's work (Baumgartner 1989: 90).[70] The result is that the final document has been reworked by people at each level who have increasingly lower levels of expertise in the subject. This compares and contrasts interestingly with the 'traditional' view of the UK as a hierarchically based system of policy advice and the system that is now seen under New Labour as discussed in the previous chapter. This description is verifiable from several sources, but we can go further and compare accurately the size of the subnetworks and the multiplicity of interactions and linkages by using the network analysis techniques.

## Unions and 'manifestations'

The importance of *les manifestations* (protests or demonstrations) and *les mouvements sociaux* (literally 'social movements' but generally a euphemism for *les grèves* or strikes) means that we must consider carefully the role of the unions in the French system. The unions are important in this context for two reasons. First because the percentage of employees still covered by public sector agreements in France is high and so the government is in a position of not only being the pension provider to 'constituents' or 'citizens' but also to a much large number of employees, furthermore their pensions are more intrinsically linked to the mainstream system.[71] The other important factor in terms of the unions in France is their apparent ability to bring out large numbers of people in demonstrations and shut-downs in order to preserve the

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[69] The Elysée is the office of the President.

[70] This was expressed in a more dignified and diplomatic manner in my interview with Franck le Morvan. The implications of this are picked up again in the conclusion. Baumgartner also has an interviewee in the *administration* who verifies exactly the same points.

[71] In the UK the majority of civil servants rely for the majority of their pension income on a pension scheme that is entirely separate from any scheme that non civil servants would be concerned with.

*status quo*. Although the Spring 2003 protests engineered by the unions did not have as clear an impact on the policy process as they did for the Juppé government they were still of considerable importance in the campaign against the pension reform and there were allegedly more people in the streets at any time since the May '68 protests.[72] This activity, combined with the evidence of the enormous mark that the Juppé affair left on the conciousness of both Right and Left, means that street protest must indeed carry some weight.[73] This seeming strength of the unions though needs to be looked into more deeply. The number of union members in France is very low at 9.1% compared to 32.9% in the UK (International Labour Office 1997).[74] This makes it clear that a high percentage of those who come out onto the streets are not actually connected directly with the unions and so they are not controlled by the unions. This can start out looking like a good thing for the unions as they can call for a protest against some government policy and they can expect to have their ranks swelled, but under the circumstances where there is a highly symbolic issue such as pensions and the strike is not a union call, the result is that the unions have no platform for negotiation because as they did not call it, neither can they call it off. This was the case in 1995 when Juppé made a speech which brought people out on the streets. The unions were well aware that it was not their doing and they were afraid of their lack of control.[75]

To understand the power of protest in France the history of the country as a political entity must be understood because the roots of France are in the tiny centre of the *Ile de France* around Paris and the state was militarily constructed by destroying five or six

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[72] Interview with Jacques Rigaudiat, 8 April 2004

[73] This emerges from many of the interviews conducted during the research

[74] 1995 figures are given. There are some disputes about calculating French figures due to the lack of a single confederal body.

[75] Interview with Michel Rocard, 19 December 2003

cultures. The result is a state that is afraid of its own people.[76] Despite a string of reforms against over centralisation the highly centralised state control remains and the state is historically in fear of uprisings. The population are therefore prepared to protest as they understand the state's fear (Hayward and Wright 2002). This fear was evident in a section of the PM's speech to the Assemblée (Raffarin 2003) when he presented the reform. Three paragraphs of this speech are given over to exhorting a non-violent approach to overcoming the tensions and divisions and respecting the elected representatives decisions.

## The fractured union movement

The history of France, as it impacts specifically on the history of the Left and its seeming addiction to schism and inter-fraternal conflict, prevents the Unions from playing their full role as social partners that one would expect in a system that is, or at least often aspires to be, broadly 'corporatist' in its governance style.[77] The hand history has dealt today's French unions is one of multiplicity. There is no overarching French confederal body for the trade union (*syndicaliste*) movement and the French Government lists eleven bodies, although the list is not exhaustive, who comprise the 'social partners' (République Française 2003c). Of these eleven there are six that are predominant in the pension policy reform of which five are the key unions (in order of size at the time): CFDT, CGT, CGT-FO, CTFC and CFE-CGC.[78] Having five confederal union bodies obviously creates problems for a movement that relies on the unity and solidarity of the workers to get results. Rocard also points out that the schism that split the nascent union

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[76] Interview with Michel Rocard, 19 December 2003

[77] Interview with Michel Rocard, 19 December 2003

[78] Exactly what these acronyms stand for is not important (they can be found in the glossary) but what is interesting is that the history of schism in the French union movement has made many of these bodies have very similar names. Comprehensible information in English can be found on the French Ministry of Foreign Affairs website (Ministère des Affaires étrangères 1998).

movement from the Socialist party in the *Charte d'Amiens* in 1906 means that, not being

aligned with any political party, the unions feel forced to adopt a political position on

almost any topic hence alienating each other and potential members even away from the

relevant policies of the moment.[79] The structural repercussions of this situation can be

seen more clearly in the NFP constructed in later chapters.

## Pension policy environment

> In 1990 negotiations on retirement pensions started and I knew very well that
> this was explosive... because France is *malheureux* for sociological and
> historical reasons.

*Interview with Michel Rocard, former Socialist Prime Minister, 19 December 2003*

> There are two legitimate holders of power in this story ... in fact, associations,
> unions, the press all have their own legitimacy. That's what makes democracy.
> That's what makes society.

*Interview with Jean-Marie Toulisse, negotiator for CFDT, 2 October 2003*

Before embarking on the description of the institutional environment of the pension

policy it is worth reflecting on the flux that exists in relations within and between

government and groups. Introducing dynamism into such a brief account is difficult so it

must be borne in mind that the descriptions given below, and indeed throughout this

work, often try to capture the prevailing situation and may therefore exclude the full

continuum of reality: a continuum that started well before the case study time-slice and

finished well after. For example, the *cadres*[80] union, CFE-CGC, were traditionally seen

as being close to MEDEF and perhaps even 'collaborators' because back in the 1990s

the level of management that was comprised of *cadres* was seen (primarily by

themselves) as being close to the *patrons*, that is the big bosses or owners, of the

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[79] Interview with Michel Rocard, 19 December 2003

[80] This can only really translated as 'management'; the concept has no equivalent in English. It seems to be a hangover from the days of the shop-floor blue-collar and the managerial white-collar distinction that has been dragged on beyond usefulness. The meaning becomes clear through the usage.

businesses. As times changed, even in France, and companies started to become more and more financially led rather then production focused, this perceived link became weaker and eventually the *cadres* started to get a taste of their own medicine in the form of being laid-off, when in the past they had always been the ones to do the laying-off. This resulted in a gradual drift away from MEDEF by the CFE-CGC as they came closer to the other unions realising they were all essentially 'workers'.[81] This is just one illustration of the kind of dynamic frame that, if there was space, could be put around each situation that is being represented in what tends to have to be a more static description.

In the section above there was mention made of the fact that the fractured unions caused problems in a movement that ought to rely on solidarity and unity of the workers. This has very practical repercussions in terms of dealing with the government particularly on pensions but also on other social policy issues. The minister in charge of a negotiation will usually wish to see enough of these unions that the resulting statement will be broadly seen as legitimate. However, when bringing together the various unions the situation often arises where those brought together around a table will feel more pressure from the others than they do from the government and therefore none will be prepared to make the (often necessary) concession. This results either in stalemate or in deals being done in private which can reflect badly on all concerned. There is in fact, between the unions, the suggestion of an elaborate 'chicken game' where no-one wishes to chicken out of their tough stance first, despite the fact that for none of them to do so is the worst possible outcome for all concerned. However some attempts are made to overcome this situation: according to Solange Morgenstern, the five main union bodies

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[81] Interview with Solange Morgenstern, 5 December 2003

tried to have a single platform. It is clear from interviews that they did not have the same opinions, even on strategic direction but they often worked together within and outside the COR in an attempt to find a minimal common base.[82] During the reign of vice-president Denis Kessler at MEDEF he decided that the way to deal with the unions was to choose one (which happened to be the CFDT) and virtually cut off the others, effectively saying 'there are too many unions in France, I will not work like that.'[83] The end of this particular continuum is not clear, but it illustrates the evolution in relations and institutions that is very difficult to capture without drowning in detail. At the time of the reforms Guillaume Sarkozy,[84] the new vice-president of MEDEF, was starting to reassure some of the unions a little with a slightly less hard line than Kessler,[85] but the evidence in this case shows that the major deals were still being cut with CFDT.

One key factor in the environment that surfaced particularly on pension reform was how the relative tightness of the majority in the *Assemblée* weighed on Matignon under the socialists.[86] This was very important in the way the policy process unfolded; there was a real fear that if the subject was approached wrongly the Communists could vote with the opposition against the government's plans.[87] The influence of the parliamentary situation (although not, from the evidence, parliamentarians)[88] in the process is also mentioned by Rocard when he is being astounded by the hurry of the Right to plunge into reform:

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[82] Interview with Solange Morgenstern, 5 December 2003

[83] Interview with Solange Morgenstern, 5 December 2003

[84] The brother of Nicolas: when Sarkozy is mentioned from now on in this work without a first name it is Guillaume that is intended, not his more famous brother.

[85] Interview with Solange Morgenstern, 5 December 2003

[86] Hotel de Matignon is where the Prime Minister's office is located.

[87] Interview with Pierre-Louis Bras, 6 April 2004

[88] Parliament does not appear to figure very much in the policy process covered by this case study a finding that is given credence by Baumgartner (1989: 91).

[The Raffarin] government is the first in 25 years which has [had] trust between the head of state and the head of government (that's rare - there was *cohabitation* and the cases like mine where it's worse than *cohabitation*), ... practically a single party government, ... an absolute majority in the *Assemblée*, ...an absolute majority in *Senat*, ... majority in the *conseil constitutionelle* ... and they've got four years to go before the next election.

*Interview with Michel Rocard, 19 December 2003*

While the Socialists had suffered problems with the legislative politics, for the Right there were still difficulties but of a very different kind. There was a surface of unity, which was undoubtedly real, but the depth of this sometimes appears questionable. Although the PM and the President were seen to be pursuing a single line there is some evidence that, while not amounting to fragmentation, was definitely a somewhat clumsy apportioning of the role within the government between Raffarin and Fillon. At the start of the process it seems that there was some competition over who would lead the policy between Fillon and Delevoye, the Minister for *la Fonction Publique*, for Fillon to have won this battle he had to build some kind of an effective working partnership with Raffarin.[89] Fillon was clearly inexperienced in the policy field and although no-one seems to doubt his general ministerial competence he was criticised as lacking breadth of view[90] and towards the end of the process particularly, though not exclusively, the PM made pronouncements that might have been expected to have come from his Minister. At the conclusion of the policy process it was the PM who tied-up the loose ends of the negotiation in what could be seen either as a reasonable course of action, because the authority he had given his Minister was expired, or alternatively as treading on ministerial toes. The lack of clearly defined ministerial responsibility and the unusually close relationship between PM and President caused some confusion and affected the outcome of the policy. There are also structural causes of internal government friction

[89] From private information.

[90] Interview with Michel Rocard, 19 December 2003

due to the role of the *Ministère de la Fonction Publique*: this ministry has responsibility for the civil service, which is a massive force in France. The consequence of such responsibility is that, despite the pressure that may come from other parts of government and however much an individual minister in this ministry may see reforms as necessary, they will always take into account the fact that they are the ones that will have to deal with the public servants during and, more pertinently, after any reforms. This situation is understandably more sensitive for Socialist ministers and so Sapin, the Socialist minister of the *Fonction Publique*, was to be found somewhat in the background and allowed the Finance Ministry to push forward events that might reasonably have been expected to come from him.[91]

## MEDEF's veto?

In France the involvement of business representatives in the pensions debate implies something very different from the UK. In the UK business is primarily involved when bodies that run pension funds and sell private pensions are concerned about levels of regulation and about their ability to (honestly) sell pension solutions.[92] In France the involvement of business is about the effects of the compulsory schemes on the contributions of employers in all sectors and their concerns over schemes in which they are partners in the shared ownership/administration model. What MEDEF were looking for was to increase the contribution period and for the *régime public* to be aligned with the *régime privé*.[93]

The French pensions system is dual in nature consisting of the *public* and the *privé*; reforms to one half of the system must be mirrored in the other half. For changes to the

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[91] Interview with Pierre-Louis Bras, 6 April 2004

[92] For some unexplained reason the business interests in pensions in the UK are referred to as the pensions *industry*.

[93] Interview with Jacques Creyssel, 7 April 2004

*régime privé* the agreement of MEDEF is vital as they are the proprietors of the mutual schemes, their signature binds all their members and once this signature is granted the government then goes ahead to create *l'extension* an administrative act that makes the agreement obligatory for all, even those who are not members of this professional organisation. This can be contrasted with unemployment insurance where the regime is state run and the government is directly implicated. So although MEDEF did technically not have a veto in the negotiations covered in this case study their agreement was essential if the whole system was to continue to hold together and make sense. In reality, Jacques Creyssel, the director of MEDEF, is able to say, 'we had a veto over the whole thing.'[94]

MEDEF, however, are not on a free rein either. Solange Morgenstern states that 'they can't do anything without the agreement or understanding of one union. Often this is CFDT then it is our job, the other four, to pull [the CFDT] back to us saying "we can do better."'[95]

## The multiple roles of Unions

The unions in France also have a very large role in the management of the *caisses* (the bodies that run the pension schemes on behalf of the state). Solange Morgenstern, for example, the negotiator responsible for pensions in the CFE-CGC is an administrator of various scheme authorities and sits on the COR as much in this respect as a straight union representative.[96] This makes the union officers almost internal actors of pension policy in many ways; they have similar conflicting interests to those of a departmental minister in the UK. On the one hand they may wish to ensure that everyone has access to

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[94] Interview with Jacques Creyssel, 7 April 2004

[95] Interview with Solange Morgenstern, 5 December 2003

[96] Interview with Solange Morgenstern, 5 December 2003

understandable and up-to-date information on their pension situation,[97] while on the other hand, they will be the very people who have to implement the policy, which means a great deal of work, organisation and cost. So while they may be politically committed to such moves they will be anxious to ensure that a suitable budget is put in place to implement them and will be wary of making rash promises for political gain that turn into administrative and management nightmares later. In France this situation can lead to political manoeuvring and possible conflicts where ministers have the potential to set a union responsible for a specific management issue against others who have no responsibility in the given area. Even so this duality is not only a bad thing as, despite the conflict of carrying out the role of 'defenders of the workers' and 'managers of the system' they have a privileged inside view.[98] We will be able to see from the NFP analysis in the later chapters that the unions are consistently not only involved in the 'high politics' but in talking to the technocrats as well. If we wished to pursue this point further the case study would not be able to offer us much more precise information but the information exists in the NFP to determine exactly the intensity of contact in these two fields of interest to the unions and, for example, whether they are substitution or complementary modes of contact and if they are carried out by differently ranking officers.

## French pensions policy context

A long hard road, involving pot-holes for many, had been travelled since the widespread acceptance of the need for considerable reform in the French pension system that crystallised around a diagnosis in the *Livre blanc sur les retraites* (Commissariat

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[97] This is a move that was part of pension reform packages both in the UK and France (Jolivet 2003b).

[98] Interview with Jean-Marie Toulisse, 2 October 2003

Général du Plan 1991) endorsed by Prime Minister Rocard in 1991. There had been reports before this but this was the first public report under the authority of the Prime Minister.[99] There had been no broad engagement with the social partners and civil society since the Teulade report in 1983, the following report being the *livre blanc* - an internal job by technocrats, then an update written by Eric Aubry who was a magistrate in the *Cour des Comptes*[100] and the internal Charpin Report.[101]

## Continuing pressures

The pressures in terms of demography and life expectancy affecting France are those that affect most of Europe. The problem is that the elderly are living longer and they are also a bulge in terms of their proportion in the population: the baby-boomers are coming to retirement age and they are going to enjoy a long retirement. In some countries this is not a critical problem. In France, however, the pension system is predominantly a compulsory, although much fragmented, pay- as-you-go (PAYG called *repartition* in French) and, assuming that this continues (see discussion below), there is a clear implication resulting from the demographic changes. PAYG operates on a simple principle that the contributions of the current active work-force pay the current retirees pensions. On one side of the equation there are workers making contributions at a given proportion of their current salary, while on the other side there are retirees getting a certain level of pension paid to them. If the system is to be in equilibrium then, unsurprisingly, the two sides have to be equal. The demographic bulge and life expectancy increases clearly affect this equilibrium and to bring back the balance there are various solutions. In terms of political pressure, the most unacceptable possibility is that of reducing the pension rights in straight terms. Levels of pensions are often

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[99] Interview with Pierre-Louis Bras, 6 April 2004
[100] The *Cour des Comptes* is the French government's supreme audit body.

[101] Interview with Jacques Rigaudiat, 8 April 2004

characterised by a measure called the replacement rate, which expresses pension income as a proportion of pre-retirement salary level. In France these replacement levels are high being typically 70-75% (Palier 2002). Within the social insurance model that is used in France pension rights are not a privilege, they are earned directly by contributions and the years of working life and so any moves that reduce these earned rights are highly unpopular. This feeling of ownership for those currently in receipt of pensions, or even partly entitled, has understandable spillover into a resistance to change for future cohorts. However, one can change the pension rights by various round about methods which look more or less reasonable depending on their presentation. Measures such as these were adopted by the Balludur reforms in 1993. One measure was that of changing the basis on which the pension rights are calculated. Previously the system had, quite generously, allowed the average of the best 10 years of salary in the working life to be taken as the basis. The Balladur reform made this instead the best 25 years which for most workers brings in a lot more lower value years. Another measure which the Balladur reforms adopted, also the preferred solution of the *Loi Fillon*, was to change the number of periods of contributions needed to qualify for the full pension rights (Mayeur 2003).[102] This 'lengthening of contribution years' is discussed in more detail below in the context of the reforms covered by the case study but it is worth noting at this point that even measures two or three times removed from a straightforward reduction of pensions create massively strong opposition as seen in the reforms either attempted or considered in the past (Palier 2003). Since the start of the Socialist's reforms there had been 'on the lengthening of contribution years... a strong, frank and open opposition from the

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[102] Note that the source by Mayeur is somewhat disingenuously attributed to the byline of '*Maitre de conference à Science-Po*' which is true, but the information in the article is more pertinent in relation to the unstated fact that the author was in fact the expert on pension reform within the cabinet of François Fillon the minister in charge of the reform.

FO/CGT therefore nobody ever thought that, globally, there could be agreement on pensions.'[103]

The lengthening of contribution years brings us to the other side of the equation. While the measures discussed above are inherently on the 'take' side – trying to reduce expenditure – there are also measures available on the 'give' side that can, like their 'take' counterparts be more or less direct and more or less contentious. 'Work more' is a valid solution that operates even if the additional contribution years are not required to get a full pension. The longer a worker can be kept from retiring they not only prevent the 'take' from increasing but they continue (hopefully) to contribute to the 'give' side. Unfortunately, for reformers, there is a huge amount of pressure to maintain the sometimes stunningly low ages at which pensions can be, and are, taken in the French system (Leparmentier and Malingre 2002). This is often a case of vested interests being protected within the fractured and complex French system. More reasonably for most observers there is the trade unions' often raised point that trying to fix the pensions system when the labour market and unemployment situation are as dire as they were in France at the time of the reforms, and still are at the time of writing, can only be sustainable if it goes hand in hand with a tailored labour market policy.[104] Indeed one of the remaining issues that will be taken on with formal discussions in the wake of the Loi Fillon is the issue of keeping older workers in the workforce (Jolivet 2003b).

## Solidarity between generations

We have discussed the manoeuvrings within the PAYG system of pensions. It is worth exploring the attachment to this system in France and what moves have been suggested towards other alternatives. The expression 'solidarity between generations' is a

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[103] Interview with Pierre-Louis Bras, 6 April 2004
[104] For further discussion see Palier (2003) and Moreau (2002).

peculiarly French formulation of total protection of the PAYG character of pension provision. Many of the reports and movements towards reform produced under both colours of Government have suggested some measure of retreat from the PAYG model including an explicit indication from Chirac during the 2002 electoral campaign (Palier 2002: 5). In the end the Raffarin government came up with a set of proposals that made no significant change in the *status quo* in terms of the centrality and exclusivity of the PAYG nature of the French pension system (Mayeur 2003). Was this purely a victory for the anti-reformists that succeeded on playing the terminology of 'solidarity' and the widely perceived evil of 'pension funds'? This seems like a likely explanation as the phrase 'pension funds' has strong overtones in anti-American left-wing circles (and presumably in nationalist right-wing circles) as when problems occur in France with foreign control of what were previously seen as French industries the guilty party in the takeover is often found out to be a large foreign 'pension fund'. When the prospect of introducing pension funds as part of the French system was considered it was purposely given a different name ('pension savings'). Not only were there the inherent negative connotations above but also in developing the argument in favour of French pension funds the tactic had been used that they would be able to counteract to some extent the investment, and therefore control, power within France of the British and American equivalents and so the term 'pension funds' itself had been given further negative connotations in the act of promoting the concept (Palier 2002: 13). However despite the accepted truth about the need for multiple pillars there is also a groundswell of technocrat,[105] union[106] and academic opinion that recognises that there is no long term advantage of the funded pension model over that of PAYG and that wider economic

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[105] Interview with Jacques Rigaudiat, 8 April 2004

[106] Interview with Solange Morgenstern, 5 December 2003

issues such as the labour market (particularly unemployment and especially for older workers) are central to solving the real problems with pensions in France (Barr 2000; Legros 2001). In any case there is an equally strong reason that PAYG will remain: in order to switch from PAYG to funded schemes there has to be a generation that will not only pay for the currently retired but for their own future at the same time. To attempt to do this when the demographic pressure is already burdening the current workforce would be highly dangerous politically and potentially damaging to the economy as a whole.

## The policy

The subject of pension reform is, as is emphasised throughout this thesis, an intense mixture of both technical and political issues. On the technical side the views cannot be that different even across parties although the political objections to the technical views may differ greatly between Left and Right.

> Contrary to what the opposition are suggesting today, there are not a million and one ways to overcome the demographic revolution. There are a few parameters – some structural, others financial, others cultural – on these we have to work according to the social and economic situation that we face now.

*Speech by François Fillon to the Assemblée Nationale, 10 June 2003*

Despite this broad technical consensus there is still scope for variation around the margins, however small differences in the margins can result in potentially large differences over thirty years.[107]

> The views of the FO and CGT mean that there could not be an agreement on any solution that makes pensions lower; they fundamentally believe that the solution is raising *prélèvements* and they suggest that these could be on capital, financial products and so on – thus evading the question.

*Interview with Pierre-Louis Bras, 6 April 2004*

## The socialist direction

There were differing views on policy direction, emphasis and process within the

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[107] Interview with Solange Morgenstern, 5 December 2003

Socialist camp. Jacques Rigaudiat, the social affairs adviser of Jospin, saw the pensions issue as not being an intensely major financial problem, at around a maximum 2% of GDP, but rather something that had to be dealt with firmly due to the demographic imperatives, with adequate reflection and with respect for a wide consensus.[108] Within the Socialist camp there were clearly some that held it was imperative for the contribution years issue to be faced up to: these were the voices that Charpin represented in his report. Other voices held out for a longer period of exploration and widespread sounding out, not much of a policy in itself but seen by many to be the wisest strategy to pursue in the political climate. What the Left would have brought to the table if they had been re-elected and decided to go ahead, as Jospin had made clear he would wish to, we shall never know, but the only thread of policy that had been clearly laid out and not broadly discredited was in essence very similar to that which the Right would eventually pursue. However, the actual line that was carried out by the Left was that of caution, or, perhaps, prudence (Palier 2002), and, in concrete terms, the establishment of the COR. It could be said that by taking these steps Jospin was defending the system against untimely and ill-considered reform or it could be said that he was avoiding the issue so as to decrease his chances of a *faux pas* before the election. Which of these explanations rings true is more a matter of opinion than a matter of fact. Either one implies the other as a side benefit.

## The Right: Prime Minster's outline

At the time of the election of the Right there was a clear need for the pensions question to be tackled; they could benefit from a good deal of preparatory work by the Socialists and they had a financing problem of some €43billion (République Française

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[108] Interview with Jacques Rigaudiat, 8 April 2004

2003b). Once the Right came to power there was very little delay in outlining the aims of

the government regarding pension reform and then coming out with an almost complete

*projet de loi.*[109] The Prime Minister's speech outlining the general policy to be pursued

by the government made some clear points:

> The principle of solidarity between generations demands the protection of
> *repartition* to assure a decent income to all pensioners... [the reform] should
> result in improved equity between citizens, taking into account all special cases
> and different *statuts* and obviously the diversity of situations, notably
> demographics... freedom of choice must be assured: retirement at 60, which is
> an *aquis social*, must not be put into question, but those that wish to prolong
> their working life should be able to do this and increase their rights.

*(Raffarin 2002)*

The first point that is notable in the speech is the immediate defence of the system of

*repartition* (pay-as-you-go). As discussed above this is something that has specific

resonance in France. Commentators and protesters had assumed that one of the major

threads of the Right's policy on pension reform would be to try to rescue the financial

situation by making moves towards provision for funded pensions[110] (Leparmentier and

Malingre 2002; Palier 2002). In fact the policy was true to the PM's word and only four

out of 81 articles in the *projet de loi* are concerned with a minimal extension of the

provisions for funded pensions. These four articles reiterate the principles of pensions-

savings, in essence putting forward two new instruments for savings plans for retirement

and establishing pensions versions of the *plans partenariaux d'epargne salariale

volontaire* (PPESV) (Jolivet 2003b; République Française 2003d). Ironically the

PPESVs referred to here were introduced originally by the socialists under the insistence

that they were not a step towards funded pensions as they were limited to a period of ten

years. Even at that point, however, they were recognised as a forerunner albeit with the

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[109] The *projet de loi* is the draft legislation, equivalent more or less to the White Paper in the UK or the new 'draft bills' that are becoming part of the UK's parliamentary and consultation process. Curiously there can also be a draft *projet de loi.*

[110] Called *capitalisation* in French.

problems that they were over generous and could neither be left alongside similar pension instruments nor turned into them without implications for other instruments or inequity due to the non-universal availability (Sterdyniak 2002). The conversion, allowing them to be kept up to retirement, into falsely profitable, generous and non-universal instruments explicitly for retirement, is criticised in the same way by Cornilleau and Sterdyniak (2003). The other instrument basically extends a type of saving that is already available to certain groups; although there is some doubt as to whether it is an attractive vehicle as it is an insurance product and annuity based (Cornilleau and Sterdyniak 2003; Jolivet 2003b; Mayeur 2003).

The remaining statements in the speech concerning the equity across schemes, the (neatly played down) concerns about demographics and the question of choice in retirement age make up the meat of the reform and are summarised below.

## General content of the reform

Considering the problems that the socialist government had, consisting of veiled and unveiled threats from the likes of SNCF (Sauviat 1999), it is not surprising to find that the Loi Fillon restricts its scope and excludes the *regimes speciaux* which cover employees in such sensitive areas as SNCF, RATP, EDF and GDF (Mayeur 2003: 5).[111] The question of demographics is tackled head-on as it is the main motivator for a reform which is presented as a way of not 'leaving as a legacy to future generations the burden of financing pensions' (Mayeur 2003: 3).

The mechanism for bringing the system to equilibrium that was given overwhelming priority in the reform was that of changing the contribution years. This is admitted even by the supporters of the Government as having engendered widespread criticism,

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[111] This list of acronyms basically comprises the major public utilities in France.

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however they see justification in the importance of having a measure that can be applied across all regimes and support the stated aim of equity at the same time as attacking the financial problem (Mayeur 2003). This emphasis on a flexible and practical instrument being a key driver in the direction the policy takes is very similar to that seen in the UK for the pension credit.

What is perhaps most surprising, although from the point of view of some Socialists opposed to the Charpin report perhaps not, is that the proposed change in contribution years is to put everyone to 40 years, compared to the 42½ proposed by Charpin, although the 40 years is to be increased gradually to 42 years by 2020. This area of the rules also links into another contested issue that reduces or increases by a multiplication factor the final liquidation terms of the pension depending on the distance above or below a pivot age that retirement is taken. This is a trick not entirely unlike the Pension Credit in the UK case study in that it allows the Minister to have control over an extra parameter to harshen or lighten the conditions around the main parameter, in this case the years of contribution. According to Pierre-Louis Bras, former Cabinet adviser of Martine Aubry, the Socialist Minister for Social Security, the Left were concerned with guarantees about replacement rates while the Right played with the contribution years but were not concerned about not making a similar guarantee.[112]

One of the main arguments against the use of the contribution years mechanism is that of the state of the wider labour market situation. The Taddei Report published under the Socialists in 1999, for example, 'highlighted the contradiction between increasing the length of contributions and the continuing use of early retirement' (Palier 2002: 9), and the fact that the older worker has been targeted during times of high unemployment to be

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[112] Interview with Pierre-Louis Bras, 6 April 2004

eased into alternative welfare benefits such as disability benefits to encourage them to abandon the labour market (Legros 2001: 28). The reform does address some of these concerns however with a '*mobilisation nationale*' to encourage a longer active life in the labour market (Mayeur 2003) although the policy consists of a smattering of incentive and disincentive measures which show willing rather than radicalism.

In the final phase of the policy's construction the unions met and negotiated the proposals and while there were some minor changes, mainly concerning those who start work at a young age, 'dirty and difficult' (*penible*) jobs and dealing with the differing remuneration structures of the public and private, the proposals stayed effectively as the government presented them (Jolivet 2003a; République Française 2003a).

## The policy process

> ... the point at which the maturation occurs is not necessarily the time at which the most competent people are in charge to deal with the subject.

*Interview with Solange Morgenstern, 5 December 2003*

## Togetherness

The European tour that Francois Fillon carried out to look at pension reform in other countries was mentioned by many of the interviewees as a good thing in that it allowed a relationship to form that did not have to be bound entirely by the dictates of immediate work. Jean-Marie Toulisse, the pensions expert and officer charged with external relations at CFDT, found that it created something rare in France; a chance to get away from institutional and formal contacts in order to get to know the others that one sits around the table with. It offered an opportunity to create a semblance of a network between the various unions and even MEDEF and, says Toulisse, 'when Fillon asked the Swedish PM a question I was there to hear it and when I asked, he heard, so now we

know each other better.'[113] The other major aspect of togetherness in the process was the

COR. The benefit of the COR seemed not to lie in any substantive work that it did but in

the background effect of bringing people together, that is to say that 'the book was not

important... it was fundamental to have this sort of .. agreement on recognising the

problem, determining eventual solutions, without choosing.'[114]

## The tortoises and the hares

> ... the reform wasn't done [by the Left] – no reform – reports exist saying there is
> a problem and they created a more or less consensual diagnosis and created
> the COR. There was no consensus on a solution. We took the consensus on the
> problem but we had to find the right solution and get the law through. So there is
> a rupture – they didn't have the courage to take it forward for six, seven years.
> OK, I understand that. They made a consensus on the problem but they never
> had a consensus on the solution. Their work was important though – it took 10
> years!

*Interview with Jérôme Paolini, 4 December 2003*

The simplest interpretation of the policy process from a Left against Right comparison

is that the Left did not instigate reform and the Right did. The next most obvious

comparison is that the Socialists took their time to do a qualified nothing while the Right

dived straight into a fairly weighty reform law. In June 1997 the Left gained power to

some extent on the back of the rejection of the *Plan Juppé*.[115] By 1998 the PM wanted a

report 'to have a wide dialogue with social partners..., for raising collective awareness...,

[to have] a diagnosis on a shared view'[116] and gave responsibility for this process to Jean-

Michel Charpin, who was the *Commissariat Général du Plan*, a PS insider that had

worked with many of the government's key advisers and was trusted to deliver.[117]

However what happened in the event when the report was published in March 1999 was

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[113] Interview with Jean-Marie Toulisse, 2 October 2003

[114] Interview with Solange Morgenstern, 5 December 2003

[115] Interview with Pierre-Louis Bras, 6 April 2004

[116] Interview with Pierre-Louis Bras, 6 April 2004

[117] Interview with Jacques Rigaudiat, 8 April 2004

that Charpin went 'beyond his mission'[118] and came up unexpectedly with some specific policy measures instigating 'a barrage of criticism' (Sauviat 1999) rather than producing a non-specific framework document as the basis for a consensus as was hoped for by many in the government. It must be made clear that the Charpin report does not seem to contradict the policy line that Jospin could have been expected to take and that which was finally adopted by the Right, but whilst being spot-on in policy terms, in political terms the criticism was that it radically shrank Jospin's political manoeuvring space: he would now have to either implicitly agree or implicitly disagree with the recommendations. As a result of the outcry the Socialists had to try and start again gently to build the atmosphere they had hoped for and this was not to be a speedy process. The social partners were taken in for informal talks and they were either brought round or sounded out on the idea of setting up the COR and the prospects of reform. It was not an easy time for the Socialists. As mentioned above they did not have a strong majority in the legislature and relied on the Communist vote. In discussions of the *regime speciaux,* which takes in the rail workers, the Communist element of the Government was explicitly linked to the subject, through the Transport Minister Gayssot. However, the problems continued to surface, at one meeting in December 1999 Jacques Rigaudiat brought together representatives from Bercy,[119] Social Security and Transport but Gayssot was still of the opinion that if reform was attempted there could be 'three months of blockage on the rails.'[120] The Ministry of Social Affairs particularly wanted to see some action on the public sector, but the Minister for the *Fonction Publique* was hesitant to engage with the problems. The private sector scheme required 40 years of

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[118] Interview with Jacques Rigaudiat, 8 April 2004

[119] Bercy is the familiar name for the Ministry of Finance.

[120] Interview with Pierre-Louis Bras, 6 April 2004. Also confirmed by Sauviat (1999).

working life to obtain the maximum liquidation terms at retirement while the public side

required only 37½ and so nothing could be done to the private until the public had been

dealt with.[121]

Meanwhile the Teulade Report *L'avenir des systèmes de retraite* (Teulade 2000) was

published in January 2000: a report coming not from the PS's technocracy but from the

*Conseil Economique et Sociale*. This report was 'a retreat' from[122] or a '*contre-rapport*'

to[123] Charpin that contained, depending on your point of view, considerably more

optimistic or realistic projections of the size and immediacy of the problem. This report

helped to calm the atmosphere and, resulting from the informal talks and an inter-

ministerial reflection, the next milestone was the PM's speech of 21 March 2000 written

by Christophe Devys, his economic adviser in the Cabinet. This speech extended in no

uncertain terms the existing hiatus by calling for the setting up of the *Conseil*

*d'Orientation des Retraites* (COR), which was to be a non-aligned, independent body of

wide membership charged with doing what Charpin had not done.[124] When the COR was

established in May 2000, the employers body, MEDEF, had seen what they wanted in

the Charpin report and they refused to take part in the COR,[125] but all the other key actors

played their part. Over time, the COR achieved its aim by not only bringing together the

main players and finding the common ground but also by extending the range of

understanding of some complex issues to shift that common ground if it had been before

based on incomplete or false knowledge. In concrete policy terms nothing happened until

6 December 2001 when the COR presented its first report to the Prime Minister Jospin.

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[121] Interview with Pierre-Louis Bras, 6 April 2004

[122] Interview with Pierre-Louis Bras, 6 April 2004.

[123] Interview with Florence Legros.

[124] The Prime Minsiter's speech (Jospin 2000) does not say this in so many words but the implication is clear in the context.

[125] Private information

Unsurprisingly, when everyone got back to work after the Christmas break, there was little inclination to move the issue forward with the legislative elections coming in the summer. There was still the problem of the majority, Juppé's vanquished ghost still haunted the corridors of Matignon and there was no path at this point other than to make a pension reform, based on the now solid groundwork, the priority for after the election.

In July 2002 the Socialist government fell to a majority Right wing legislature and Jean-Pierre Raffarin was appointed to be Prime Minister.

> The job of protecting the pension system has been put off for too long... It's no longer the time for creating new commissions, the publishing of new reports. Today is the time for taking decisions after *concertation*... we must see that everything needed to preserve it is brought together before the first six months of 2003 are over.

*(Raffarin 2002)*

This speech no doubt surprised Michel Rocard, quoted above in the section on the pensions environment, as he finds the positioning of the Right to make no sense because putting yourself under a deadline forces you to make the last concession and in the end because of this the power of law, rather than an agreement, was necessary.[126]

The Right were not the only ones that were in a hurry; Rigaudiat criticised the CFDT for being in too much of a hurry, he blamed them for pressuring Charpin[127] and, eventually, it was also this union that was to sign up to the final reform package in the Fillon-Raffarin endgame.

One consequence of the hurry of the Right is the way that decisions were taken within the policy process. Fillon was personally involved in the decision making in a way that would be rare in the UK and even in France under other conditions. He took many decisions himself as his team were still mastering the dossier and could not be involved

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[126] Interview with Michel Rocard, 19 December 2003

[127] Interview with Jacques Rigaudiat, 8 April 2004

in the preparation of decisions to the full extent that might otherwise be the case.[128] In fact the ministers all saw it as an imperative, under the circumstances, to be fully informed and there were over a six month period what amounted to 'teach-ins' on Saturday mornings with the key Ministers and those in the Cabinet and from elsewhere, such as Banquy the assistant director of pensions at Bercy, to present papers.[129] The momentum could only have been increased by the favourable conditions, described above in 'Context' and 'General Environment', of the strong position of the Right and the normal (non-*cohabitation*) relations between the President and his government.[130]

True to his word, in February 2003 Prime Minister Raffarin made a speech to to the *Conseil Économique et Sociale* launching the 'national debate' on pension reform. The four months between this speech and the 28 May 2003, when the legislation was presented to the *Conseil des Ministres* prior to its parliamentary reading was a time of considerable activity. No-one, however, doubts that the tortoises had done the footwork that made it possible for the hares to speed away: if the Right had been starting from scratch they would not have been so swift.[131]

## Avoiding the steamroller

It is clear that the technical side of the reform was a difficult job but actually getting the reform passed was the vital work,[132] something that the Socialists had discovered the hard way. The Raffarin government walked a very fine line with their policy making between two contrasting positions. The first would be to introduce a policy that was

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[128] Interview with Solange Morgenstern, 5 December 2003

[129] Interview with Stephane Brimont and interview with Jacques Creyssel, 7 April 2004

[130] Interview with Jean-Marie Toulisse, 2 October 2003 also information from interview with Jacques Creyssel, 7 April 2004

[131] Interview with Solange Morgenstern, 5 December 2003. Interview with Jérôme Paolini, 4 December 2003. Also mentioned in several other interviews for the case study.

[132] Interview with Jérôme Paolini, 4 December 2003

necessary and grudgingly accepted as so by the French people. The second would be to steamroller through a measure that was not wanted or understood by the citizenry and which ignored the concerns of the unions with a negotiation that was basically a sham. Rigaudiat, Jospin's social affairs adviser, is highly critical of the 'economist... rational' view: implicitly many of his own Left-wing colleagues as well as the Right. He accuses many of the actors as being *contra-politique* and emphasises that 'in a democracy and with such key topics we must convince the *corps social*.'[133] There were, in fact, considerable efforts and expenditure to do this on the part of the Right. Paolini, the *Conseiller auprès de Ministre* of Fillon, concentrated on the communications side ensuring that the technical work that was being done could be transformed into 'tools of communication facing outwards' and also that the signals coming form the collective political antennae were being fed through to the technical side. It is interesting to compare the importance and the high level of expenditure on 'selling the policy' in France, where there are parallel formal channels, to the UK where this is the only mode of contact with outsiders. This selling was seen as a key element by the Fillon camp, 'two important external advisers' who had experience in public policy as well as communications were the senior contacts at the two companies contracted to work with the Government.[134]

As early as February 2003, when the PM made the first official noises about pension reform in his speech to the Conseil Économique et Social, François Fillon was equivocal about the role of the unions, saying that 'they would "have their say" if they partook "in a constructive dialogue"' (de Montvalon 2003). Looking back, Michel Rocard commented on the process saying that the Raffarin Government 'talked about

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[133] Interview with Jacques Rigaudiat, 8 April 2004

[134] Interview with Jérôme Paolini, 4 December 2003

consultation, they even spoke about "*concertation*", I believe, never the word "negotiation"' and that this was a big mistake as in 'consultation the atmosphere is radically different because when you leave you have to explain what was talked about... so it is a proclamation taking place not a constructive process' compared to a negotiation where you are in a process to get results. 'The mistake was to see the unions three or four times without ever saying in which mode everyone was operating.'[135]

The question that was never clearly answered and can be seen to still muddy the waters even with hindsight is the one implied above concerning the mode of engagement and the words that are used to describe it. The words and the modes do not necessarily coincide in the real world of policy making in the way that they may be understood in the literature; concertation (in English) and *concertation* (in French) may or may not be the same thing for François Fillon and as the academics who write on neo-corporatist policy environments. Negotiation and consultation are clearly at different ends of a scale but both are sliding points on a scale rather than fixed and it is very difficult to say what the scale is measuring as the observable and quantifiable factor is usually an outcome rather than a process. Furthermore, that outcome relates to many more degrees of subtlety than merely the mode of operation – most notably the abilities of the various interlocutors that are involved in the process. The recent literature on pension reform policy-making unfortunately is thin on the ground and often only tangentially relevant to the issues and a deeper examination is outside the scope of this thesis.

Michel Rocard, when outlining his approach to the pension reform and describing his approach to the process concentrated two of his four points on, effectively, avoiding the

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[135] Interview with Michel Rocard, 19 December 2003

steamroller. He, himself, prioritised negotiation as he believed that to force through a law that did not have reasonable agreement behind it was very unwise.[136]

The internal organisation was influenced by the speed with which the policy process moved: there was a specific structure created to try and ensure the swift and co-ordinated action needed resulting in the formation of a strategy committee and a steering committee. The former addressed the big questions of whose speech, what publicity, when would moves be made. This committee was chaired by Raffarin with Fillon, Delevoye, the communications advisers, directors of the cabinets and external advisers present. The latter, chaired by Paolini, was to feed into the strategy committee by managing contact and regular meetings of the political and communications advisers and the two external advisers but not the *Chefs de cabinets*. Both these semi-formal bodies were only in place for the duration of the policy process. Paolini's explanation for the existence of these bodies was that the size of the network and the mass of information flowing around it demanded that organisation be imposed as otherwise contacts were unsatisfactorily piecemeal.[137]

The period February to April 2003 saw the engagement of the Raffarin government with the 'social partners' in a series of meetings at the Ministry of Social Security headed by the *Chef du Cabinet* of Fillon, Jean-Paul Faugère, where those charged with the pension dossier in the unions and MEDEF, went through the proposals laid down by the Government. At the same time there was a parallel process on a more political level concerning a smaller set of points concentrated around the Prime Minister's cabinet, the Elysée, MEDEF's senior officers and the union that we have seen to be most in favour of

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[136] Interview with Michel Rocard, 19 December 2003

[137] All information on these ad-hoc committees from a interview with Jérôme Paolini, 4 December 2003

the reforms, the CFDT.[138] These parallel meetings were not only to find the political

solution to getting the pension reform agreed but also to shore up political support within

the Right's still considerable camp of sceptics: notably the astute and experienced

Jacques Barrot, the leader of the majority in the *Assemblée* and Frederic Salat-Barroux,

'the *grand patron* of social affairs': both of these senior figures had to be brought round

to the pressing necessity of reform.[139] During these meetings Creyssel also said that it

was the time when MEDEF and CFDT discovered their ability to have some common

ground.[140] Even when these actors had actually come round to the understanding the

position on contribution years there were still subtle questions to be dealt with, for

example, in the context of the *penibilité* of certain types of work, would the system

assume new contribution years automatically, unless there were reasons against it, or

would the system have to check to see if the rule could be applied and only do so if there

was a reason. We can imagine that the discussions that may take place on this sort of

topic within the UK's closed system of politicians, civil servants and special advisers

would be long drawn out and difficult to close. To imagine the process in the

complicated French arrangement with such a wide range of actors can give us a limited

idea of how complicated the process was.

## The end game

The 7 May 2003 saw François Fillon make the first move in the end game as he

presented the draft legislation for a first agreement to the *Conseil des Ministres*. The next

stage of formal meetings with social partners, despite the fact that is was widely covered

by the press and talked about by all, is very difficult to piece together. An attempt to

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[138] Interview with Jacques Creyssel, 7 April 2004

[139] Interview with Jacques Creyssel, 7 April 2004

[140] Interview with Jacques Creyssel, 7 April 2004

highlight key issues follows, but the confusion within the account can be as informative about the nature of the policy process as a clear explanation would be. On 13 May 2003, the day before the meetings took place there were predictably massive demonstrations against the proposals. The meetings took place under circumstances of heightened tension, not helped by the fact that it was still not clear which mode talks were being held in (see above) and that the room to amend the *fait accompli* draft legislation was obviously very limited.

By the end of the first day no union was ready to sign the documents that were being put forward and CGT did not even bother to return the following day. Very soon afterwards CGT-FO walked out of the talks as well (Jolivet 2003a). Then, the conclusion of the deal came quickly; it was recognised by the Prime Minister that Fillon had arrived at a point where he had reached the end of, or according to some overstretched, his mandate to negotiate. MEDEF it seems had a hand in letting this be known through Cirelli, a member of the PM's Cabinet.[141] The PM then appears to have brought to fruition the parallel line of occasional encounters that had been going on by inviting round, after the gruelling all night meeting held by Fillon on the night of the 14-15 May, the Secretary General of the CFDT, François Chereque, who was joined by his pensions negotiator Toulisse who had just got out of the overnight Fillon meeting.[142] The concessions that were needed were made by the PM and then Chereque left to pay a 'courtesy visit [to Fillon]' (Algalarrondo 2003). Later that afternoon Toulisse met with the PM's and Fillon's cabinet representatives to finalise the details.[143] All this culminated in two out of the five confederal union bodies signing their agreement.

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[141] Interview with Jacques Creyssel, 7 April 2004

[142] Anecdotal evidence says that he had enough time to take a shower between the two meetings.

[143] All the details of the PM's involvement are taken from Algalarrondo (2003) but the existence of the involvement was also reported by others.

Following this process a list of amendments to the draft legislation was published: effectively the *quid pro quos* that got the unions onside described above. The outcome left many people not happy and on 25 May 2003 the streets of the major French cities were again busy as further demonstrations took place demanding the reopening of talks with the unions. However, the government now had the agreement of MEDEF and two of the unions of which one, the CFDT was the biggest. It was all over. On 28 May the proposed legislation, including the amendments, was agreed in its final form by the *Conseil des Ministres*. Parliamentary debate followed and on the 24 July 2003 the *Loi Fillon* was adopted by Parliament.

All over except that there remains much of the legislation that will come through decrees (secondary legislation) (Jolivet 2003b) and the work has yet to be started on the *regimes speciaux*. In terms of controversy, the process described above was nothing compared to what remains to be done.

# IV. Facts to figures: a bridging chapter

As touched on in the introduction, case studies are, in experimental and scientific terms, unstructured, poorly defined models with unstated assumptions. However their value has been proved by usage (Gerring 2004) and it is clear that much can be learnt about how policy is made from the case study that has been presented. The remaining chapters of this thesis address the same field of enquiry as the case study but use the NFP approach. In order to ascertain how much we learn from the original methods presented in this thesis we will summarise here what we have so far learnt from our 'traditional' investigation in order to give a comparison base.

## What we expect to gain from NFPs

It is already stated in the introduction that we expect that NFPs 'can reveal valuable information that would not emerge from a traditional case study' but now that we have the two case studies to draw examples from we must be more precise about why this alternative method is necessary (simply more information is not necessary if we have enough already) and how it can be demonstrated that it succeeds. The question of the necessity of more information from a method such as NFP analysis is answered in two ways: good scientific method and illuminating precision. Good scientific method relies on formulating hypotheses and then testing them. There is a popular but understandable misconception in both hard and soft sciences that hypotheses will usually be drawn from pure theory, in fact this is very rare and normally a great deal of contextual and background understanding is needed from experimental or case study evidence in order to generate hypotheses. This leaves the scholar with a problem in that it is not generally considered good science to test a hypothesis with the same tools that generated it. By

either exploring the policy process using NFP methods and testing our theories with case study evidence, or generating hypotheses about the process from the richness of the case studies and testing using the precision of NFP methods we gain credibility and assurance about our results. Meanwhile illuminating precision is also something that can be clearly added by the NFP method to complement the findings of case studies and to allow us to make claims about the policy process from a reproducible and scientifically justifiable set of data – the case study alone would not have allowed such convincing claims and conversely it is possible that we would not have discovered the general claim from the NFP alone in the absence of extended contextual information. This thesis therefore does not suggest that the two case studies that we have presented cannot stand by themselves as answering a range of questions about the policy process – that is to say they are not useless if we do not carry out an NFP analysis. It rather proposes that the NFP work has the capacity to provide an independent test of hypotheses generated from the case study material and that such work offers further precision to make findings from the case study more convincing. The NFP method does, of course, also stand alone in producing interesting results that answer questions about the two cases.

The second half of this chapter will present the structure of hypotheses that are tested in the thesis. Both the summary of what we have learnt from the case-study approach and the hypotheses are built around the three broad questions given in Chapter 1:

- What characteristics of the policy process relate to its success or failure?

- Who are the important people and what are the things that make them important?

- What are the working methods and how did the process unfold?

## Threads from the case study

Looking across the context of the timing and descriptions of the differing approaches that ensure the policy process comes to fruition we see the importance of the executive structure and the prevailing parliamentary conditions in the two countries. The size of the majority for each of the three governments had a part to play: the two governments that emerge more in control, Blair and Raffarin, have confidence in their majority and the one that is buffeted by difficulties in timing, Jospin, is nervous of its hold on parliamentary power. The clear differences between Blair and Brown as masters of their own game and the complexities of *cohabitation* (and even the simple split executive in non-*cohabitation* France) can also be traced through the two policy processes.

The policy instruments or policy lines that are prioritised impact on the probability of the process succeeding; in our study they reflect the characteristics of the policy sector of pensions and do not seem to be greatly affected by the different contexts. Technocratic solutions are prioritised and as mentioned in the previous chapter, the politicians' overall desire is for a flexible instrument that can be tweaked so as to move closer towards an optimal allocation of spending in politico-electoral terms whilst remaining subtle enough to be edged along without causing noticeable opposition. None of the governments, left, right, French or UK were ready to shift from their existing entrenched positions. We saw no major move away from means-testing in the UK and no flight from PAYG for the French. The nature of the pensions sector as revealed in the previous two chapters is that evidence is often thin on the ground, frequently contested and, when neither of these things, suggests that alternative systems suffer from the same problems anyway. Such features do not inspire politicians to take risks on major changes if they want to see their policies emerge convincingly intact in the final policy output.

A clear contrast that emerges from the descriptions of the process is the number of actors that seem to be involved. In the UK there are only two politicians featured in the narrative whilst, even allowing for a change in government in France, there are many more political players. We have already mentioned the involvement of outsiders in the French case is much higher than that in the English case and the split union movement in France, the cabinet system and the institutional arrangement of President and Prime Minister serves to exaggerate differences in the two processes.

A major point that defines who the key players are in the two policy processes is that the UK Labour party wanted to implement their policy and they had been waiting for years to do so, while both French parties view the policy somewhat like going to the dentist: it has to be done but if it could be put off without too much pain then that would be preferable. As a result of these two different attitudes we can see that the UK has fewer players that are important because of their role in gaining external validity or public approval; even the key politicians do not appear overly concerned and there is no evidence of devices seen on the French side such as quasi-independent reports, mobilisation of publicity skills or the drafting in of familiar faces to reassure doubters. Some of the key actors we can see on the French side are concerned precisely with this type of activity and the reassurance factor, from the establishment of the COR to the act of convincing MEDEF, has a major effect on how people work and who is drafted in work on the policy.

Apart from the parliamentary context affecting timing, institutional factors also show themselves in the study when considering the way that the people work within the process. The most obvious is the fact that the UK government does not <u>have to</u> talk to anyone but it still likes to 'sell' its policy. The UK government tends to anticipate

reactions, based on their understanding of interested groups, and even if they go out and meet them there is not a tendency for this to have direct impact on policy. The policy gets modified according to a changed understanding of the political environment as a result of external contact. In France the government has to talk to others. It has a duty to consult with social partners and they are in some ways internal players through the joint management of pension schemes. This necessity to consult means that the government tends to have to bring together its own quite firm position, something the UK government has no need to do until it wants to. It then see this position modified by public or semi-public demands from external actors. The effect of this on the policy process is to instil rigidity and formality as a defence mechanism on the government's part.

A very clear thread that can be drawn out of the case studies is that of the timing aspect. In the UK the Labour Party was frustrated to some extent that it could not go ahead on both child poverty and pension reform at the same time. This was a fact that became apparent to key actors very early on and consequently they were forced to be patient and implement holding policies that they may well not have chosen to do under other circumstances. However, they held their line and awaited their opportunity with an impressive level of control. This control was the iron fist in the velvet glove: there was a determination to get the policy they wanted with all the inherent advantages promoted and the disadvantages suppressed in time for the election but there was very little explicit power broking involved as the process was very much kept in the executive family. In France we saw the French Left being frustrated in quite a different way: they knew that although the time was probably right to move forward they were not confident, given the Charpin report, that they could keep the disparate interests in line and so they had to keep

the process rolling on gently. The timetables for elections and, of course, losing the election meant that the right time never arrived for Jospin. Time was also seen to be an issue for Raffarin, although quite why this was so is never really uncovered. Certainly it puzzled Michel Rocard and given the Juppé background it seems surprising that the Right pushed ahead so quickly, but push ahead they did. This defined the shape of the policy process, the dual lines of negotiations with the 'social partners', MEDEF and CFDT behind the scenes and the iron fist, without a velvet glove, that was seen at the very end of the process.

Another contrast of rigidity and fluidity that we see is that of the general working arrangements within the two governmental set-ups. One difference that arises, the hierarchy being much more evident in France, is due to the UK advisers being mostly neutral when compared to the mostly political French advisers. We see two reasons for this phenomenon first the cabinet/administration hierarchy and second the multiplicity of cabinets. These arrangements mean that everyone is distinctly aware of their place and, because they may be competing with others in the cabinets to get into a higher ranking cabinet or with others in the administration to get a cabinet place, they also care more about their place in the pecking order. This leads to the formality and the repetition of the work that was seen. In the mostly non-politically aligned UK environment, however, there is very little rivalry. When things are going well the political and non-political advisers respect each other for their different skills and the evidence shows that from all policy actors there was a desire to work in a non-hierarchical arrangement to exploit peoples' skills as effectively as possible. There is of course a qualification to this as some departments in the UK government, including the Treasury, have reputations for

being superior[144] and this can cause tensions not through personal rivalries but through rivalries for departmental recognition and policy-making supremacy.

We can see from this very limited gathering of strands from the case-study that if a researcher wished to study one of the areas that we identified above in our three broad questions that there is ample evidence emerging from the study to support or reject a healthy range of hypotheses.

## How will we compare case studies and NFP analysis?

The selection of cases is intended to address two ends: methodological and theoretical. The methodological purpose is the central one of this thesis and we are attempting to prove that NFP analysis is operable in two very different countries (institutional settings) - as will be described in the setup of the hypotheses we hold constant policy sector and level of government. With such a central methodological question the demonstrations of theory bulidng could only ever be a secondary aim to demonstrate some of the potential uses of such analysis. The rigorous setting up of theoretical hypotheses linking NFP derived knowledge to the policy process and tests using NFPs must be the focus of work that follows this thesis using the methods developed within it. However, in order to justify our claim that NFPs are not only operable but valuable in examining the policy process we must show some interesting result that could not be found from the case studies. To this end we have a conventional 'most similar' case study design where we take measures derived from NFPs (the structural aspect) as an independent variable and try to show that we can explain differences in the policy process (our dependent variables) more effectively by reference to the NFP derived variables than by reference to the corresponding structural/institutional variables implicit in the case study. Some

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[144] The sense of the word is different for those within the Treasury to those outside.

pointers to where we expect to get leverage from the NFP analysis have already been highlighted in the case study chapters. The illustrations of suitable hypotheses below show how the limited demonstration of structural features that we examine in this thesis can be extended in later work to rigorously test theory. Examples 1-5 show the sort of hypotheses that we can test in the limited scope of this thesis while examples 6-8 show what we would hope to use NFP analysis for if we could devote adequate research to each example individually.

## A discussion on hypotheses

The main thrust of this thesis is to discover, through practical application, whether the NFP method is valuable in examining the policy process. The paragraphs above on the case-study give us a base from which we can look at the ability of NFPs to enlighten us on the set of three broad questions. In order to test the value of analysis using NFPs we will construct a set of sub-hypotheses that fit within the framework of broad questions. The rest of this chapter will discuss this hypothesis structure and later on in Chapter 7, when we have explored the technical aspects of NFPs further, we will set out the details of the lowest level of hypotheses which we will use NFP analysis to test.

It is important to remember that an overarching decision has been taken to answer questions about configurations of policy making in networks before attempting to tie the work in to more complex questions about specific policy outcomes or policy effectiveness. The hypotheses are not going to address the ideas or policies that are being processed and selected in the course of policy making. This comes as a result of both our theoretical stance, which follows in the next chapter, and the empirical issues that are discussed in Chapter 8. This decision favours certain types of hypotheses but it does not

mean that the hypothesis tests are restricted only to structural data. It will be necessary to compare the structural data to other types of data in order to ascertain the formers' analytical value. This decision does limit the scope of the work within this thesis but it is good practice to do work on new developments the right way round. We must understand structures before trying to understand how ideas operate within them and how outcomes differ because of them the interaction of the ideas and the structures.

## The levels of hypothesis

The main hypothesis as stated in Chapter 1 is that '*the organisation of observations into an NFP model and the analysis with suitable methods can reveal results that would not emerge from a traditional case study.*' As explained above we will construct layers of hypotheses to test this. The first level is, to paraphrase, that of proving the worth of NFP analysis. The second level of hypothesis is about the nature and applicability of NFPs: the specific hypothesis is that NFP analysis is applicable across countries. The testing of this hypothesis relies on the design of the experiment and the selection of units within the case study exercise. Future case study work could similarly test hypotheses that the conclusions apply across policy sectors, levels of government, etc. The final level of hypothesis defines the specific work, largely based on formal network analysis, that will be carried out on the two NFPs for France and the UK: there will be several hypotheses tested at this level.

### Level 1 hypothesis: the value of NFP analysis

We will test the hypothesis *that the organisation of observations into an NFP model and the analysis with suitable methods can reveal results that would not emerge from a traditional case study.*

The following example shows how such a hypothesis relates to a simple situation. It is quite possible that in a case study a high proportion of the interviewees will nominate Mr A as the most influential person in the network. Mr A is quite likely a very important person and the interviewees would be quite correct to state that he is influential, and even though many of them do not have much contact with him, he still, very reasonably, comes top of their list. Aggregation is generally used, whether implicitly or explicitly, in summarising case study findings and Mr A will be our top dog. Our hypothesis suggests that NFP analysis can uncover, where the case study cannot, the importance of elusive Ms K who, it transpires, can reach and is reached by everyone in the network and has a high quality interaction with, let us say, the Prime Minister; a relation that few in the network are aware of. As a single piece of information in a case study, this Prime Ministerial connection would be interesting,[145] but in the NFP analysis, realising that Ms K is in fact a well connected node and a conduit to the PM, we discover that aggregation does not give a true picture. Adding up (aggregation) is not a very sophisticated function, although it is often a good one and relatively simple. When we examine the level 1 hypothesis we are primarily looking for the benefit of sophisticated analysis over mere aggregation. Through an NFP analysis we are able to find a more subtle mathematical function that can be applied to many of the questions we may want to ask about an NFP and in this example, there will be functions that explicitly uncover the importance of Ms K, when this was only obliquely suggested by the traditional case study and then overwhelmed by the aggregated importance of Mr A.

In the more complicated case that is examined in this thesis the first level hypothesis will be tested by examining the results from the second and third level hypotheses and

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[145] Well carried out case studies are good at noting and interpreting exceptions.

comparing their findings to the summary above of what we learnt from the traditional case study material that was collected in parallel with the data for the NFP.

## Second level hypothesis: the universality of NFP based analysis

In future work the universality of NFP analysis could turn out to be either a strong or weak prediction. It may be possible to prove a hypothesis suggesting that policy networks have the same characteristics for a range of network measures, across all time and territory drawing in differing political systems and policy sectors. Alternatively the universality may be limited to proving a hypothesis that they can be examined using the same methods in a small number of cases. Either way, testing the limitations or breadth of applicability is an important part of establishing the NFP construct. Within this thesis the case study is constructed to allow the testing of applicability across countries. For this hypothesis, which takes the NFP as the unit of observation, 'country' has been chosen as the variable, implicitly varying economic setting, institutional setting, wider polity, cultural aspects, historical influences and other linked characteristics. The design reduces the possible sources of variation by holding constant, as far as possible, other elements. The policy sector is restricted, broadly, to the fiscal side of pension provision and the level of government is always national for pension policy. Whatever the result of the hypothesis test on the applicability of NFPs across countries, future work can test a similar hypothesis across policy sectors with countries and levels of government fixed or test levels of government for a given policy sector eliminating country effects. Such future work would enable a rigorous test of sources of differences in results for various hypotheses about NFPs. Unfortunately, unless the work in this thesis shows no variation across countries, it cannot reduce the number of case studies needed for such an experiment. If, however, it can affirm the 'no variation across country' hypothesis then it

reduces future testing by eliminating one of the potential sources of variation. By its nature this thesis is restricted in size, but any future test of the applicability of NFPs would do well to consider experimental design issues in advance. With an appropriate experimental design as few as eight or nine case study units would give full results on sources of variation for individual effects, such as level of government, and combinations, such as country with policy sector.

## Third level hypotheses will be formed around the three broad questions on 'how is policy made?'

The hypotheses will address systematic and structural questions about how policy is made and the configurations of policy makers within the framework of the policy process. As mentioned above, questions about 'policy' will not be addressed.[146] However, a successful conclusion to this thesis will make available a set of techniques that, with more work, can be extended and linked to policy specific questions. This should not suggest, however, that the choice of policy sector or the characteristics of the sector can be ignored, merely that these aspects will be used in a post-hoc assessment of the validity of the conclusions and the method used rather than forming a part of the analytical method.

The hypotheses to be tested are based around the same three questions that were adressed in the case study and will be drawn from theory or from the case study examination and then tested using the NFP analysis methods. There should also be some room for exploration using the NFP analysis methods, but this will be mainly avoided. Good science avoids forming hypotheses from such exploration as the hypotheses would be tested using the same techniques that gave rise to them.

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[146] Note the similarity with the kinds of hypotheses tested in the advocacy coalition framework (ACF) (Sabatier and Jenkins-Smith 1999: 24)

## Illustrations

Given the sort of policy making contexts that were seen in Chapters 2 and 3 it is useful to consider the kinds of hypotheses that might be approached, even though we do not want to precisely define the hypotheses until we have considered both the theoretical angles and the problems of carrying out the empirical work. Illustrations of suitable hypotheses make it easier to visualise the hypothesis structure and they produce a clearer overall picture of how NFPs are being used in this thesis. Firstly, some examples of possible hypotheses that fit the shape of the thesis (although not necessarily the material studied here). In these examples the independent variable is the NFP derived measure and the dependent variable is the feature of the policy process.

1. A wide range of measures for structural configurations within NFPs are invariant across vastly different political institutional setups and macro-economic environments.

2. Elite actors in policy making operate as 'free agents': actors exogenously identified as 'elite' within an NFP have a much lower tendency to belong to a 'clique' than non-elite actors.

3. Policy making does not take place primarily in institutional formats: endogenous structural cliques are linked to exogenous 'functional' labels (analyst, political actor, policy expert) rather than exogenous 'institutional' labels (governmental, pressure group, industry).

4. NFPs of policy making in an EU intergovernmental setting do not show a 'country' based structure, but rather a 'functional' or 'expert' based structure: endogenous structural cliques are linked to exogenous 'functional' labels

(analyst, political actor, policy expert) rather than exogenous 'country' labels (UK, Italy, 'south', 'north').

5. The new theories about 'small world networks' is relevant to NFPs: NFPs consistently show that all actors have easy reach to all other actors (short path lengths) but that actors have a tendency to operate in groups or cluster themselves (have marked 'cliques') i.e. NFPs are 'small world networks'.

It can be seen from these examples that within the limited scope of this thesis we are not able to address hypotheses that go as far as making statements about policy process outcomes. However by proposing and proving hypotheses about the features of the policy process, such as those above, we can still demonstrate the value of NFP analysis since by using it we can move easily from these, now proved, features of the policy process towards conclusions about differing outcomes. This gives us more explanatory power than with merely illustrative case study evidence. For example if we were to prove example hypothesis 4 above, about some policy process, we would be able to convincingly claim that member states who sent technically capable delegates would have a greater influence on the policy process output than those who send more political delegates. We will see in the conclusion that although this thesis is only able to address questions such as examples 1-5 that this brings us enough new information to make claims about the policy process outcomes that would not have been possible from the case study alone.

The second set of illustrative examples shows how the work that is covered in this thesis can form a bedrock upon which questions can be built that use knowledge of the structural facets of NFPs to outcomes and policy making procedures. In the cases below it can be seen that a quite specific research project could be carried out to address the

hypotheses, but that it would be reliant on the foundation of knowledge that comes from a work such as this. The following are therefore examples of hypotheses that do not fit the shape of the thesis but could be later work by researchers examining specific policy areas using NFP techniques:

6. Countries with higher tendency to 'bottlenecks' in their NFP structures have failed to implement effective pension reform.

7. When 'industry' is centrally placed in the pension reform NFP, the private/public ratio of pension provision is significantly tipped towards the private.

8. Countries with the worst projected support ratios for pensions (i.e. those that will encounter the most severe demographic changes) have the most isolated government actors within their NFPs.

These examples treat the NFP structural variables as the independent variables and the outcomes of the policy process as the dependent variable. This is one step on from the dependent variables being features of the policy process as we saw in examples 1-5 above.

Finally a clear counter example of where NFPs are no help. The only way that the following hypothesis could be addressed would be if an intermediate theory linking NFPs to other features of policy making is discovered and accepted. This hypothesis does not fit NFP theory as used in this thesis:

9. Countries with parliamentary systems tend to have slower reform of pension systems

It does, however, seem reasonable to imagine that NFPs could be used to explain, or

as part of an explanation as to, why a hypothesis of this kind is accepted or rejected –

thereby creating the grounds for an intermediate theory as alluded to above.

This chapter has now bridged the space between the case study approach and the NFP

analysis by placing the emerging knowledge in the same frame. The next chapter will

flesh out the NFP idea by giving it a theoretical justification and lead us on to the

practical application by outlining the basic assumptions that must be addressed before

embarking on a NFP study.

# V. Ideas, environment and assumptions

The aim of this chapter is to justify the study of network structure and to lay out a 'base set of assumptions' for use in studies that analyse such structures. Using an ideas-based, evolutionary view of the policy formation process I demonstrate the key role played by networks that form policy (NFPs) and the importance of network structure is shown by an analogy to genetic evolution.[147] The base set of assumptions is developed in this context but, as a practical foundation for analysis, it is entirely independent of the theoretical aspects.

Initially, policy formation is represented as a process defined by outputs, inputs and a hidden 'black box' mechanism. The outputs are briefly discussed and then the more elusive inputs are examined. The mechanism inside the black box is then considered and it is deduced that the inputs must be 'ideas' as the output is a composite 'idea' and the black box cannot create anything. The useful definition of a reproducible and transmissible 'idea-element' or 'meme' is adopted.

It is proposed that to get from the mass of input ideas to a distinctive, cohesive output, there must be both transmission and selection of ideas and hence the 'selective environment' is introduced. This concept is then linked to NFPs by extending existing work on policy evolution and an alternative to the traditional viewpoint, where actors manipulate ideas, is adopted to put memes at the centre of the action. Given the evolutionary idea and the selective environment, the importance of the network structure

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[147] The section of this chapter that deals with the environment of ideas and evolution was expanded to include a discussion on the current debates surrounding use of the evolutionary concept in the policy process and presented to the Political Science Workshop at the University of York in March 2004. If the reader is interested in how these debates relate to the formulation used here they are referred to the paper Astill (2004a) available at http:/personal.lse.ac.uk/astill/research.html. However, as explained in this chapter, the formulation used here is only one way to justify the study of networks and to lead to the setting up of the base assumptions and so the debate on policy evolution and random variation is very much optional.

to a meme's evolution is then demonstrated by an analogy to the role of the physical environment when studying genetic evolution.

Within this context, I propose a set of base assumptions that define NFPs by derivation from first principles and by appealing to the literature. The former route makes the step to practical analysis easier and the latter facilitates a deeper understanding of the 'policy networks' literature. It is extremely important to emphasise here that NFPs are not 'policy networks'[148] and not necessarily any other phenomenon seen in the existing literature. Rather than attempting to offer a checklist to enable the identification and categorisation of an NFP in the real world, in the way that the Marsh/Rhodes typology does (Marsh and Rhodes 1992b), the base set is intended to be a tool for building well defined models of real world NFPs which can be analysed to test hypotheses about policy making. Nor is the NFP an ideal type; the base set of assumptions is not intended to set parameters on what should be described as an NFP and what should not. The assumptions are intended to be departed from and modified as necessary depending on the analytical context – but always in a documented and justified way.

## An example of a policy process

From this point onwards there is a great deal of talk about the 'policy formation process' or 'policy process' and it is useful to have a simple example of a policy process to which definitions can be related. The example concerns a tribe in a dense jungle area that is entirely self subsisting and has had no contact with outsiders. For the first time ever this tribe is being attacked by outsiders. The need is established for a defence policy detailing how the village should be protected, which once decided can be implemented.

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[148] See Chapter 6 for the many references to this variously defined term.

The tribal elders and the tribal head's male family get together and decide, after discussion and consultation with each other in various combinations, on a policy. This resulting policy is announced by the tribal head at a council of the whole tribe, and accepted by all concerned. The policy is that the tribe will build a lookout place in a tree in the centre of the village, a fence around the village and a group of tribes-people will, when instructed by the lookout, go to the area of danger. As the need develops for more complexity in the example, more detail will be given.

## NFPs and the policy process
### Black box

Often in studies of policy networks there is only one assumption made: that a network exists and forms part of the policy process. The literature review shows that this assumption regularly brings with it a lot of extra baggage which, although usually reasonable, is based on unstructured empirical observations (also known as common sense). This baggage is generally neither explicitly stated, nor examined for its validity or its applicability in the analysis. To avoid such a lack of rigour the first stage must be to ask what constitutes 'the policy process', to see where the network element fits in, to discover its function and, importantly, to find how it relates to other elements of the policy process including those that may be lost when we create a model of the process centred around the network. To examine the NFP's part in the policy process we will use a 'black box' investigation. A black box is traditionally used in complex systems analysis where the mathematical function representing an unknown process is reconstructed from observed input streams and output streams. The reason we shall use it

here is that this method ignores the process (for the moment) and concentrates only on the inputs and outputs.[149]

As the black box represents a process it needs, by definition, inputs and outputs; the black-box cannot 'create' anything, it is only a processing function. By describing the policy process in this way we are forced to distinguish between the inputs, the outputs and the characteristics of the black box process. Anything that represents a characteristic of the process, within our black box, we will ignore until the inputs and outputs are defined at which point we can 'open' the black box.

## Tangible policy output

In studies of public policy the distinction is generally made between policy 'outputs' and policy 'outcomes'. What can often be measured when testing a hypothesis about a policy process is the 'outcome', for example 'outcomes' might be a reduction in crime or shorter hospital waiting lists. As a simple outcome for the simple example of a policy process given at the start of the chapter, 'no loss or damage to the village due to external attacks' would clearly be a successful policy outcome. A less simple outcome for the simple example would be 'fewer cattle lost', but this requires more complex measurement than the previous measure, firstly as it needs the comparative 'fewer' to be compared to something and secondly because it opens the possibility that fewer cattle may have been lost due to some other reasons than the implemented defence policy. All of these phenomena I consider to be post-processed 'outcomes' compared to a tangible policy statement that is an 'output'.

For analytical robustness, in an ideal case this tangible policy statement ought to be a written document with recognised status, an example of this in the UK government

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[149] But coincidentally we will see later that the process is indeed a 'complex system'.

context would be a White Paper - draft legislation to go before Parliament. It may be the case though that the tangible policy statement comes in a speech or in some other communication and in our simple example it is the speech that the tribal head makes at council.[150] Whatever the tangible policy output, it must have validity through some means or another as being the agreed definitive version of a final (or possibly intermediate) statement from the NFP, otherwise we cannot be confident that we have found the output rather than merely an intermediate stage of the process within the black box. Such validity and output definition is context driven by the analytical framework being used in each case. Sometimes we may find that in order to explore hypotheses about a policy process 'outcomes' will need to be taken as proxy measures of the policy output. If this is the case it is important to be aware of their proxy status and that any 'outcomes' as opposed to 'outputs' are affected by stages that take place outside the confines of the NFP. This happens because they have been implemented and implementation is a process that is outside the consideration of this thesis although it could potentially be handled by NFP ideas.

Having worked towards this point it must be noted that the definition of a 'tangible output' is a working assumption made in order to examine the relationship between NFPs and the policy process. The assumption exists only within this chapter and it is not an assumption or a defining feature of NFPs. Other alternatives could have been adopted within the theoretical construction here and we would have come out with the same shape to our conclusion. This 'tangible policy output', however, is the simplest assumption for the job in hand. In Chapter 7 there will be an examination of the relative merits of where to draw the line on outputs and outcomes. There is also a linked

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[150] It is not ideal that the word 'tangible' is used to describe a speech, however, the phrase 'tangible policy output' at least gets across well the concept of a definitive, crystallised and recognised output.

discussion on the line between policy formation and implementation as this has implications for which actors should be included in an NFP model.

## Defining inputs

When looking at the policy process as a black box, although it is immediately apparent that there must be a tangible output there do not seem to be at a first look any clear inputs. If we are deconstructing a process, the question is about how combinations of things (the inputs) are changed into a resultant combination (the output).[151] It seems reasonable to suggest, since the 'tangible policy output' is a complex, (generally) compound idea written down or spoken, that the inputs are also ideas.

It is worth emphasising again at this point that the aim of this section is to justify the study of network structure and that some of the proposed mechanisms are not part of my NFP conception but rather part of a specific logical demonstration of the place of networks within the policy process. In this context, the concept of input ideas being processed to form an output is worth further consideration as it will give us a strong theoretical starting point from where we can 'open' the black box.

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[151] The process can be an *'identity' process* where the output is the same as the input (it is important to remember that here we are talking about a black-box – there could have been intermediate stages in the black box where things had changed, but we only observe the inputs and the outputs) or a *transformation process* where the output is different to the input. As we do not know what goes on in the black-box, an identity process must also be considered a transformation, albeit a trivial one.

## Memes

A theoretical framework exists for dealing with the transmission, mutation, reproduction, passing from human to human and storage of ideas. This framework was originally proposed as a genetic analogy consisting of 'cultural replicators' or 'memes'[152] (Dawkins 1989: 189-201). 'Examples of memes are tunes, ideas, catch-phrases, clothes fashions, ways of making pots or building arches' (Dawkins 1989: 192) and also, we can assume, fashions in policy-making such as 'New Public Management', privatisation or unilateral disarmament and, by extension, aggregated or individual policy 'decisions'. Dawkins states that the 'size' of a meme is analogous to that of a gene, that is to say the size can be as small or large as need be in order that it has 'sufficient copying-fidelity to serve as a viable unit of natural selection' (Dawkins 1989: 195). Memes can be seen as the building blocks of more complex ideas, which are themselves memes if they possess the right attributes. Considered in this way memes can be introduced into the description of the policy process and, we will see, become more valuable later when we take on more of the quasi-genetic aspects of the analogy. In the example of the tribe, meme-inputs can be defined as the idea-elements that contributed to (or were excluded from) the policy; 'danger can be seen from up a tree', 'welcome them in', 'barriers are protective', 'counter-attack their village', 'all defenders should go to the area of weaknesses'. Within the black box, input memes, that may or may not be seen in the final policy, are processed to form the output tangible policy statement. It is also interesting to compare this formulation to the concept of 'ideas as "policy viruses"' (Richardson 2000: 1017) given the mention of a 'policy soup'[153] (bringing to mind the evolutionary 'primal soup') and the fact that viruses, in biological study, are a hothouse

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[152] The word 'meme' comes from the Greek μιμου (*mimos* – a mimic) and is pronounced to rhyme with 'theme'.

[153] Quoting Kingdon (1984)

case of mutation and evolution. In his work though, Richardson unfortunately does not extend this further than a short discussion of the analogy.

## Inside the policy process – transmission and selection of ideas

The theoretical construct now encompasses concepts of outputs, inputs, memes and a black box. At this point we have established something important: apart from the tangible policy output we have not yet encountered any other variables that are normally considered when pursuing policy network studies. In such studies even the concept of an output is mentioned surprisingly rarely and then it is normally only observed in a post-processed form or implicitly as an amorphous concept such as various 'political events' König and Bräuninger (1998: 456) or 'local economic development policy issues' (John and Cole 1998: 142). We are now confident, thanks to our breakdown of the policy process, that all the other variables normally observed have so far remained hidden in the black box. We can next try to open the black box and consider what may be happening inside.

We have constructed a view of the policy making process where the only inputs are memes and the output is (usually) a more complex, compound meme. We must now construct a convincing mechanism of how the input is transformed into the output. A useful toolkit of definitions is available from a memetic analysis of policy making in Speel (1997). We will not construct an analysis similar to that of Speel but, rather, use the concept of memes to decide which are the important mechanisms and variables in the policy making process. Note also that everything within Speel's glossary is built from Dawkin's original, very simple principles of memes (Dawkins 1989: 189-201). It is better, however, to reference Speel as he saves us a lot of work by collecting the relevant first order definitions and constructing the second stage definitions that have relevance in

the context of a policy process. For this exercise it is not necessary to agree with all the definitions in Speel and I have only adopted those that I consider to be correct and of value for the job in hand; these definitions are given as footnotes when the appropriate terms arise. The definitions may often seem to be simplistic or tautological, but it is important that they are listed as their meanings are quite specific.

Memes have already been described as 'cultural replicators'[154] which can be stored in retention systems[155] such as written sources or in human minds. The process of replication[156] involves moving from retention system to retention system. In a policy process, replication is when memes pass between human minds or, say, the photocopying of a publication whether or not it is read by a human (although this is somewhat of a dead end analytically). Our first look inside the black box suggests the input memes moving between their respective retention systems, but to model the policy process and arrive at the output in addition to pure replication there must also be a further process that takes us from a multitude of memes to the final complex output meme. We will now make a grand supposition that the 'selective environment'[157] that exists within a policy process, having memes as inputs and a (usually larger) meme in the form of a tangible policy statement as an output, is a 'network that forms policy'.

## Random variation and natural selection

Along with replication, any evolutionary explanation needs an element akin to the

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[154] 'Replicator: a piece of data that is copied from retention system to retention system without too much alteration' (Speel 1997) 'Without too much alteration' is somewhat unclear as a qualifier, but memes are inherently difficult to pin down in this sense as it is intuitively the case that when an idea is transferred it can, despite some slight changes, still be to all intents and purposes the same idea. This links in to Dawkin's definition of a meme given above where sufficient copying fidelity is only that necessary to allow the process of natural selection to take place. There is ongoing discussion in the study of memes surrounding this issue, which arises from the difficulty in identifying the nature of memes in the physical world.

[155] 'Retention system: a kind of memory where replicators are stored.' (Speel 1997)

[156] 'Replication: the process where replicators are copied from one retention system to another.' (Speel 1997)

[157] 'Selective Environment: the sum of the factors, or in other words causes, decisive on what memes are weeded out in a selective event or in a number of selective events.' (Speel 1997)

random mutation of genetic material that produces the competing genes in genetic evolution. We must split apart two ideas to examine the selective environment: the variation that produces competing ideas and the selection mechanism that allows the differential survival of some of these elements. I will deal with variation now and tackle selection later.

Anyone with experience of policy making in a political environment, or who has studied it in the field, will know that a failure of faith on a few simple points of theory takes us from a universe based on the intentional choices of rational actors to apparent randomness and arbitrary policies. Two of the main stumbling points that shake the faith are, firstly, whether actors are capable of translating their utility maximising aims (e.g. re-election or desire for low and stable inflation) to a set of preferences about a specific policy (e.g. childcare spending levels or making the Bank of England independent) and secondly, supposing that they are able to transfer their general aims to specific policy preferences, to what extent they can know how to intentionally adjust the policy to meet these preferences. This second point is a question of both mechanisms and extent typified by the question of inflation: does some given 'lever' change inflation in a given direction and if so how much should it be moved and in which direction to achieve the desired result? We must be prepared to see these failings in the context of a classic 'chaotic system' where we see a world that is deterministic but unpredictable even for the simplest of equations and where tiny errors or slight adjustments will always have the potential to produce seemingly random outcomes.[158] In other words we can have a deterministic mechanism that produces randomness and unpredictability.

It should also be noted that the random changes needed for evolution do not have to be

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[158] The famous 'butterfly effect' of chaos theory.

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great. Our theoretical lens focuses on the emergence of outcomes that are successful in their environment from a starting point of random variation. This reflects advances in mathematics where genetic algorithms are used to solve non-linear problems.

It is also possible to argue that, given the unfixed size/complexity of the meme and the fact that smaller memetic elements combine to produce larger policy meme elements, a model of random variation becomes even more acceptable.

Given these arguments I believe that variation in policy has a large random element and therefore we can justifiably make the assumption of random mutation so allowing us to use the evolutionary model.

## Focusing on the meme and differential reproductive success

To explore and understand further this conception of selection we must focus on the meme and use a trick of evolutionary studies by moving our focus from an arbitrary sized unit, say a plant or a human, that is affected by the replicator to the replicator itself (be it meme or gene).

Given policy memes as the replicators we will adopt a point of view where they are competing to try and get into a policy output by sitting in, being replicated with more or less random variation and moving between the minds of actors in NFPs. One thing that is vital to understand in this context is the nature of memetic (and genetic) selection and evolution, which is that the memes (or genes) are of course not consciously evolving. However, we want to examine them as if they 'mutate' or 'try to be successful' to be the best to survive and we can do this because we only get to observe the successful memes in the result. In fact there are many mutations that fall by the wayside and only the mutations that are successful are observed in the result.

I cannot put it better than Dawkins who says:

> we must not think of genes as conscious, purposeful agents. Blind natural selection, however, makes them behave as if they were purposeful, and it has been convenient, as shorthand, to refer to genes in the language of purpose.
>
> *(Dawkins 1989: 196)*

Let us consider how an apparently intentional mechanism of policy making ought to be viewed in memetic evolution. In the analogous natural world, we can look at the success of the gene that affects a seed's taste and smell, which leads birds to pick up and ingest the seed and propagate it elsewhere via excretion thus leading to the success of the gene. Given an environment (both living birds with given 'tastes' and physical territory with various earth and smells), the question of why or how the bird eats variously tasting seeds is completely outside our sphere of interest. The environment of intentions within the bird's head is treated as a part of the environment and does not interfere with the natural selection argument applied to the seed's genetic material. The question is one of which genetic taste/smell code is successful in being eaten in the prevailing, yet co-evolving, environment. Similarly, the intentional mechanism that may or may not exist in the human sphere of ideas is not under consideration, we are interested in the survival of certain policy memes in the prevailing, also co-evolving, environment including the ideas of what looks like a 'tasty' policy that rest inside the heads of our fickle policy actors who ingest and regurgitate ideas. Of course that is not to say that we are never to be interested in such issues; one of the advantages of adopting this view may be that we discover new ways of approaching questions of intention and interests, while noting that intentions and interests belong exclusively to humans or groups of humans and do not map onto the units of analysis that are explored here, which are ideas.

Natural selection of policy means that out of the random mutations occurring in the

meme-pool, those best suited to survival in the environment of ideas will reproduce, that is, be replicated, and those less suited will not be replicated. The replication we are interested in is the passing from mind to mind of the actors in an NFP (no different from a bacteria passing from patch to patch of more or less 'friendly' dirt). The differential survival occurs as memes will survive to be replicated again if their 'acceptability' in the local environment of the receptor node exceeds a certain level. Otherwise the memes will be forgotten, rejected and not passed on further.

## Two stage policy evolution

In other works discussing policy evolution (Dowding 2000; John 1999), the main focus is on alternative policies and their survival in the wider environment (the policy environment of the 'real world') where, as Dowding convincingly proposes, it would take decades or longer to see any true evolutionary effects. To put those discussions in the context of NFPs I wish to extend the work to propose a two-stage policy evolution, where stage 1 takes place in the NFP and stage 2 is, as with Dowding and John, in the real world.

We can theorise an evolutionary process taking place within an environment that is entirely meme-based, in contrast to the real world where policies exist in an environment of, say, escaping prisoners or missile attacks. This meme-based environment is an imperfect representation of the real world. It is mediated by the members of the network and compresses both physical and temporal dimensions into an environment of ideas. Like the real world environment, it evolves and changes with the policy memes but it does so in a different way to the real world because some parts of the meme-based environment are less sensitive to change than the real world while other parts will be

more sensitive.[159] Such a conception, where ideas have different roles is not unknown in literature on policy formation; both the advocacy coalition framework (ACF) in Sabatier (1993) and an analytical framework of ideas in foreign policy (Goldstein and Keohane 1993) make similar classifications of ideas that work well with an environment view. The Table 5.1 summarises the types of ideas and the way they can be seen to fit into the environment.

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[159] Those parts of the environment, for example, that are memes with ideological or dogmatic character will be less sensitive to change.

**Table 5.1 Where ideational concepts fit into the enviroment of ideas**

| G+K | World views | Principled beliefs | Causal beliefs |
|---|---|---|---|
| *ACF (Sabatier and Jenkins-Smith 1999: 121)* | *core: basic ontological / normative beliefs* | *policy core: basic perceptions of the problem* | *secondary aspects: ways and means, causes, evaluations* |
| | Very important in the mediation by the actor that creates the environment | May not be as important in mediation as they are more obvious than world views and hence there would be more care to avoid partisan or obviously biased interpretations of reality. 'Principled beliefs mediate between world views and particular policy conclusions; they translate fundamental doctrines into guidance for contemporary human action' (Goldstein and Keohane 1993: 9) | About cause-effect relationships 'strategies for the attainment of goals' (Goldstein and Keohane 1993: 10) This category is probably the mediated real world that affects the policy meme, rather than, like world views, determining this world. |
| | Part of environment, but unlikely to be policy-meme-like. | Certainly a major feature of the environment. Strong possibility of contributing material to policy memes | Primary environmental factor on the policy meme. They are the rules that determine the simulation of the real world. |
| | Very slow to co-evolve | Will co-evolve along with policy memes. | Co-evolve fairly rapidly. |

The policy evolves within this simulated, distributed (held in several places) environment according to simulated situations foreseen by the actors. Hence, the policy is not evolving in the real world, but the effect of the real world is still seen albeit modified by the ideological beliefs of the actors, their understanding of the real policy world and the possibilities for the replication of memes depending on who has access to whom. The short discussion above on outputs and outcomes, for instance, shows a good example. The different *views* held about how outputs will eventually translate into outcomes and *links* that exist between those holding varying views will shape the environment.

The meme elements that survive and flourish in the NFP environment become part of the output policy meme that has 'won the right' to be implemented and so emerges into the real world. It now starts to evolve in a real world situation competing with other policy memes that are in a position to influence the real world and evolve through natural selection in such an environment (this is how Dowding (2000) sees policy evolution). If it is to compete again with other *potential* policies this can only be in the NFP environment, but, when another such round occurs, much here will have changed as a result of the actors' observations of the real world stage of the evolution.

The benefits of the environment of ideas approach are not limited to confirming the relevance of NFPs in the policy process; we can jump ahead and see that it will also be useful in formulating hypotheses. For instance, we could hypothesise that good policies will result from a situation where the NFP environment is a good representation of the real world, both in static content and dynamic change. Policy memes that are able to survive in an accurate simulation should also fare well in the real world. Another possible hypothesis would be that if the environment was rapidly changing and unstable

then the successful memes that form the policy output would be catch-all, bland memes; nothing else could survive in such an environment.

## Importance of network structure in the environment

In addition to providing an interesting lens through which to view policy formation and to validate the role of NFPs, the concept of the environment has been introduced to show the importance of studying network structure as a prior step to testing more complex hypotheses about policy making. How does it show this? The environment is analogous to genetic selection on Earth, which operates in an environment that is an ever-changing mix of physical non-evolving (mountains, rivers, volcanoes and harsh winters) and biological gene-based co-evolutionary phenomena (such as trees, tigers and viruses). The evolving policy-meme is in an environment where the equivalent of the 'biological' co-evolving elements are the memes that constitute the mediated real world and all the other 'beliefs', 'ideologies' and 'ideas' of the actors. The equivalent of the physical non-evolving[160] elements, that constrain and lay 'order' over evolution, are the links, communication channels, isolated subgroups and other structural features of networks. Like the rivers, air and oceans that define which genetic types will meet and compete on earth, network structures define the dispersal possibilities by which memes can potentially interact or forever be kept apart within the environment. The NFP analysis that this thesis puts forward is an examination of the 'physical geography' of the ideas environment that is essential before the complex studies are undertaken on the evolution of the flora and fauna of ideas themselves. If Darwin had not comprehended the distinction between an 'island' and a 'peninsula' or if he had not bothered to note that the Galapagos were islands, his findings would have been incomplete. Even with the

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[160] The term non-evolving must be accurately interpreted here. For something to 'evolve' does not merely mean that it changes. Therefore 'non-evolving' elements can change but they do not change by an evolutionary process, they change for non-evolutionary reasons.

extensive data he collected on the evolving life forms, without understanding and analysing the physical constraints on evolution he would not have been able to draw his conclusions.

## A base set of assumptions

We will now attempt to elaborate on the concept of an NFP, bearing in mind that our aims are to ensure that NFP analysis integrates with the existing literature, and to aim towards some unifying definitions.

The base set of assumptions is intended to be used as a reference point. The base set will unify all studies that use the concept of policy networks: such studies would be seen as having built further assumptions onto the base set or having relaxed some of the assumptions, always with explicit justification. Additionally it should be made clear in a study when the elements in this base set have been followed unchanged. In Chapter 6, the existing literature is examined in this way.

The base set of assumptions proposed in this chapter consists of six elements:

**Element 1**: the nodes in an NFP constitute a finite set (of actors) defined by a stated boundary condition

**Element 2**: a link between two nodes is defined as either a binary (1,0) or valued relation, the set of relation-types is defined by a stated boundary condition

**Element 3**: the human individual is the node (called the actor)

**Element 4**: the node is indivisible

**Element 5**: actors have no links to themselves ($\Lambda_{ii}=0$ for all $i$)[161]

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[161] See below for an explanation of this formal condition.

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Element 6: each actor in an NFP is associated with a set of

actor attributes

In view of the development of analysis techniques that will be carried out in later

chapters, this section also introduces some mathematical notation and for completeness

introduces some formal restrictions.

## Element 1: the nodes in an NFP constitute a finite set of actors defined by a stated boundary condition

Networks consist of nodes and links. When unpacking the policy process above it was

stated that replication and selection of memes occurs within a distributed environment

mediated by 'actor minds'. Taking on this idea, a starting point in discussing an NFP is

that nodes represent the actors who possess the conscious minds capable of mediating

the real world to produce the environment and the links represent a relation of some kind

between these actors both to create the distributed environment and for the replication of

the policy memes. In most studies, the notion of attributing actors as nodes in the

network based analysis of policy making is empirical rather than theoretical; actors are

observed, they are seen to operate in 'networks' and then the definition of a network is

built from these observations. In contrast, by deconstructing the policy process, it is clear

that a transmission network with selective nodes must exist and that it is reasonable to

assume that the nodes in this network are actors, i.e. the nodes are capable of and exhibit

the ability to 'act', as we know the nodes are not merely 'storage' (books, or computer

memory). The definition of what the actors are comes in *element 3*.

In defining the actors, some formal conditions must be stated as this will make the

handling and analysis of data easier in due course. The actors constitute a finite set $V=$

$\{1, 2, ..., n\}$, but as alluded to in the example of the policy process, where every member

of the tribe (the universe) is a possible actor, theoretically there is nothing to prevent this set comprising every actor in the universe. Unless explicit justification is given, studies must state and justify a boundary condition on the membership of $V$. It is conceivable that there is an inherent upper limit on the numbers of actors that can be justifiably seen as constituting an NFP due to the ability of actors to meaningfully interact (Marin and Mayntz 1991a: 17). I contend that even if this is true then the 'inherent' boundary condition can still be explicitly stated in another way, say on the basis of strength of relations, and that in many studies the natural upper limit (if it exists) would be impractical as a boundary definition of the actors in the NFP.

## The boundary definition for actors

It is vital that the boundary definition for actors is considered very carefully and explicitly stated. Unacceptable treatments include common sense, the availability of data (Laumann, Marsden, and Prensky 1983) or trusting to luck. Missing actors in the network can invalidate the conclusions of sensitive analysis and this is especially true when we take into account the non-linear aspects of networks, but the researcher has to find the actor inclusion boundary that will make an analysis manageable whilst retaining confidence in the analysis. There may be no satisfactory solution to this as availability of data will, of course, force a limit but the important point is that data availability is not an ideal boundary condition, rather, it is a practical limitation. Sensitivity considerations are more than likely impossible to resolve, but to be forewarned should mean that one can be forearmed to some extent even if this only means a better critical evaluation of results. As will be seen in Chapter 6 there are many ways of defining the boundary for actors in an NFP context, most of which are never clearly stated in the literature, reflecting the observation that 'network analysts have, to date, been relatively mute on the matter of

boundary definition' (Laumann, Marsden, and Prensky 1983: section 1). The relative merits of different approaches to framing the actor inclusion boundary will be discussed further in Chapter 8 on applied techniques. What is very clear, even at this theoretical stage, is that the actors to be considered must be selected from the universe and the boundary condition that is used to achieve this must be stated.

## Element 2: a link between two nodes is defined as either a binary (1, 0) or valued relation, the set of relation-types is defined by a stated boundary condition

Once nodes (actors) are defined, the next element in an NFP is the links. This is even less of a deductive leap than the definition of nodes, given that actors are the nodes and we are talking about transmission of memes it is simple to propose that the links consist of relations between the actors. Such links must represent relations clearly associated with two specific actors which have the potential to result in the transmission of memes; they do not represent such 'links' as 'being in the same club'. They may be directed relations such as giving information (comprising direction from giver to receiver), or symmetrical relations such as having a telephone conversation with someone (initiating a telephone conversation, in contrast, would be directed). For directed relations, we can define a simple variable that would represent a link from actor $i$ to an actor $j$ by setting $\Lambda_{ij}=1$ and setting the variable to zero for no interaction. For symmetrical relations an additional condition must be that $\Lambda_{ij}=\Lambda_{ji}$ whatever the value of the variable. Relations can also have an associated value; examples are 'importance of information given on a scale from 1 to 5' or 'length of telephone conversation'. In such cases $\Lambda_{ij}$ would contain this value rather than a (1, 0) flag.

## Types of relations

Leaving aside the wider issue that all unitary properties can be expressed as relations (discussed under *element 6* below), if a relation is to fit in with the meme conceptualisation then it must have the potential to result in the replication of memes. This means for example that 'having a telephone conversation' must certainly be an allowable relation, but 'resource dependency' would not appear to fit into this category. Resource dependency, while it undoubtedly associates one actor with another, is not a relation in the sense of 'exchanging information'. However 'resource dependency' is a major theme within the literature and as such is worthy of further consideration, it is certainly a key explanatory factor in testing hypotheses, but it is not, in this definition, a relational link. I assert that a network of 'resource dependency' links is not a 'network that forms policy'. It is a related method of representation that can explain the constraints on the actors within the 'selective environment' of an NFP that uses the meme based explanation. Resource dependency, in the context of NFPs, can be seen as a conceptual synonym for 'power', that is to say that if I am 'resource dependent' on you then, to the extent of that dependency, you have 'power' over me. Both of these are dispositional properties, taking their reference from things that may not happen. In a similar way that, for a cup, 'fragility' takes its reference from, but is not related to the event of, breakage (Dowding 1995: 4). In order to represent 'resource dependency' (at first glance, possibly easier than 'power') we could try to map the 'resources' associated with each actor and 'their resource dependencies', but how would we do this? It is difficult to see how resource *dependency*, as a dispositional phenomenon, can be directly measured and so for an empirical investigation, we would have to look at either only the resources of each actor (not the dependencies) or the realised exchange of resources. These resources are

'information, expertise, trust' (Kenis and Schneider 1991: 41). All of these, no matter how abstract the 'resource' (e.g. trust), bring us back to measuring relations that involve the transmission of memes. Such an empirical method would still leave the resource dependency structure with a measurement problem in that actual dependencies only exist in a probabilistic, potential or theoretical scenario whereas in reality, some proportion of this potential is realised in exchange. Observing three 'resource exchanges' between actor A and B while observing six between A and C, does not tell us very much about the 'resource dependency' – except for what has been realised of it and as we do not know what fraction has been realised we are left with little knowledge. Conversely though, it is equally apparent that measuring the exchanges may leave us with a gap in our understanding; the National Association of Pension Funds, for example, does not have to give a devastating press conference in order to affect policy. Merely the potential for holding the conference needs to exist and be transmitted to those who fear such a thing. There is clearly theoretical value in 'resource dependency', particularly when considering options for hypothesis testing and this shadow structure will be dealt with further under *element 6* below and as it arises later.

Even given the 'meme replication' constraint there are a massive number of relations that could be used within an NFP analysis and so, again, a boundary definition must stated. This restriction and choice for relations is overlooked as an analytical question even more than the boundary definition for actors but it is very important if the design of a study gives rise to a large set of potential interactions that must be reduced to manageable proportions.

## Element 3: the human individual is the node (called the actor)

In *element 1* we defined the node as the actor (i.e. the node acts to filter memes) leading to the need for an additional assumption about what the node is. From the literature we see a great deal of variation in assumptions concerning the actors within an NFP. Much like a Russian doll, the possibilities are contained one within the other, the largest doll seen is organisations (sometimes confusingly referred to as institutions) and within that are the other dolls, described more or less easily; within an organisation such as government there are distinct sub-organisations such as ministries or departments, interest groups may be split into functional teams and, for individuals, two or three may gather together to influence policy. All these different types of 'group actors' form the ever smaller layers of the Russian doll, at the centre of which is the individual actor. In order to create an element for the base assumptions we need to decide which of these options is the 'lowest common denominator', can be seen as a 'basic unit' and requires least recourse to context driven justification. It will be seen in Chapter 6 that the existing literature shows a predominance of organisations or 'group actors', but this often appears to be a pragmatic decision taken for analytical or theoretical tidiness. It is frequently the case that the description of the theoretical basis of the study tends to suggest an assumption that individuals are the actors, but despite this a decision is taken to use organisations as the unit of observation, sometimes with reasonable explanation and sometimes not. What is needed in this base set of assumptions is a reasonable starting point that is justified and, when necessary, can be departed from if strong reasons are given from empirical or theoretical evidence. Departures can also be based on an appeal to pragmatism and methodological necessity, but if this is the case then studies should put forward first of all the theoretical ideal (and whether this follows this base set of

assumptions or not) only then explaining and justifying the departure on pragmatic grounds. The idea that underpins the whole of the base set of assumptions must be stressed very strongly here: it is not a prescription or an ideal type. It is a unifying framework that can be departed from, but its existence should impose a framework on every study and force an explanation of any alternative assumptions that are adopted.

There are only two scenarios where the use of organisations as nodes seems inherently justifiable; firstly, if for every institution there is only one conduit for information, influence and communication (a 'gateway' node) or, the alternative scenario, if the replacement of one individual from the institution for another will make no difference to the dynamics of the network. Both of these scenarios seem highly unlikely and if they do occur they could be stated as justification for an additional assumption that the study will neither show nor consider the internal geometry of the organisations but instead take them as the nodes. Care is always needed though as it is not certain that individuals from the same institution will share interests to the extent that they are, statistically speaking, significantly similar.[162] Furthermore, whatever interests are variously held in the name of the organisation rather than personally, Arrow's Impossibility Theorem (Arrow 1963: 126) suggests that there is no guarantee of a consistent aggregation of these interests to assign to the group actor. A further justification arises from the complex and nonlinear nature of NFPs. One of the main consequences of nonlinearity is that results are highly sensitive to initial conditions and a very small linear change in local structure (perhaps within an organisation) can be proven to have a dramatic impact at a global level, that is to say the whole structure of the NFP (Watts 1999: 517). This suggests that, without convincing evidence, it would be dangerous to assume that the structure of the network

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[162] On a similar point see hypothesis 2 set up in Chapter 7 and tested in Chapter 9.

can be simplified by aggregating the actors within organisations. This view is certainly true in the scientific policy making community where individual reputation is important and it suggests that considering individuals becomes more important as policy making moves more into every area of life, leading to the need for more specialised knowledge and increasingly scientific approaches to policy making (Jansen 1991: 142; Kenis and Schneider 1991: 36; Sabatier and Jenkins-Smith 1999: 118). Added to this is the view that organisations (government, NGOs, corporations) are seen as being 'plural not singular' (Richardson and Jordan 1979: 25) and that if large organisations need to be broken down into parts, we can never be sure that we have stopped in the right place. Again, we must have strong empirical or theoretical reasons for stopping anywhere above the individual. Given this 'atomistic' view, with the individual as the atom, it seems justifiable to propose, unless evidence is forthcoming to the contrary, that we must base an NFP on individuals and let network analysis show which are the natural groups of association within the network.

## Element 4: the node is indivisible

Within the complex business of policymaking and politics there is the potential for individuals to be divided; several perspectives suggest that different roles can exist for each actor. Under *element 4* we are rejecting the possibility that each 'role' should be a separate node in the NFP. There are several reasons that make a scenario where 'role' is the actor analytically shaky as well as impractical. The practical reasons are the quickest to state and accept; supposing that roles are considered as nodes, then measuring 'exchanges', 'dependencies' or any relation within a single individual represented as

separate nodes causes problems. Attempts at asking how regularly someone uses information gained in one role within the work of other roles is fraught with difficulty and assessing the dependencies of the functioning of one role in relation to another is practically impossible. Another reason to reject 'role' as the node is that an important strand of network analysis is the examination of actors' 'role equivalence' (Knoke and Kuklinski 1982: 59; Mitchell 1992). Since using 'roles' as nodes requires an a priori assumption of the roles an individual plays it invalidates such an approach and hence conflicts with some of the general usage of network theory. Other literature on roles suggests that subdividing the actor node into constituent roles in some way would mark a different level of analysis altogether from that suggested by NFP analysis.[163] In a paper linking role theory to embeddedness of behaviour in repeated prisoner's dilemma games (Montgomery 1998) it emerges that, at present, role theory suggests the adoption of behaviour that constitutes a 'role' is a result of the circumstances and history of engagement. For example, sometimes an actor may play the 'diplomat role' but then as relations progress switch into the 'bully role' or, during initial rounds of policy making, an actors embedded behaviour may reflect the role of 'party official' before later starting to act and react as a 'cabinet minister'. In the sense of embedded behaviour, NFPs cannot operate on roles in this way; at a micro level every actor will reside in one of their roles (in this role-theoretic sense) at the time of each interaction leading to the establishment of a measurable relation link. However, the NFP, as a map of network relations is aggregated over time and so this distinction of switching between roles is lost. A dynamic NFP analysis would be capable of reintroducing such a theoretical approach where one of the variables affecting the structures over time is each role that is displayed.

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[163] Although this does not preclude such an analysis from being valuable, merely outside the scope of this paper.

A dynamic view is a different level of analysis outside the scope of this thesis, but it is one of the reasons for overturning this element and suggests an interesting line of development. The individual should therefore be considered indivisible. Under *element 6*, below, and further in the construction of potential hypotheses in Chapter 4, we will consider further the network analytic method of 'structural equivalence' and the possibility that what are commonly thought of as 'roles' are in fact 'labels' and may be aligned with or conflict with the 'role' revealed by network analysis.

## Element 5: actors have no links to themselves ($\Lambda_{ii}$=0 for all *i*)

With the individual as the actor, as defined in *element 3*, and no subdivision of the individual, as defined in *element 4*, *element 5* proposes that we should not represent any link from the node to the node itself. This means under our notation that $\Lambda_{ii}$=0 for all *i*. Doreian gives a footnote stating that this is 'by convention' (Doreian 1992: footnote 4), but it is instructive to illustrate what this convention implies. We are saying that what an actor knows and does alone need not be represented or considered. Chinese walls within the mind of a civil servant or the writing of memos to oneself do not count in our analysis.

## Element 6: each actor in an NFP is associated with a set of actor attributes

At this point, with the five elements, an NFP can be analysed using unadapted mathematical graph theory or simple geometrical analogies. As students of Euclid know, 'a point is that which has no part' (Euclides and Todhunter 1882) and in graph theory the

only quality a node has is its relations with other nodes, essentially the set of links, Λ. The actor members of *V* are, under the elements so far stated, ordinal and have no dimension. In the real world, however, we know that our 'actors' are not like graph theory nodes. Almost every study that will be discussed in Chapter 6 uses in its analysis something more than the set of relations. We can define a variable $X_{is}$ for actor *i*, where *s* is one of a set of *k* 'actor attributes' we have chosen to measure. Before we discuss the possibilities of what these actor attributes may represent and how aspects of the literature relate to them it is important to understand how they are additional to the 'pure network' of elements 1-5 and where they fit into such a scheme.

## Distinction between network measures and actor attributes

One of the things that can be most confusing when using networks in analysis is if a clear distinction is not made between 'attributes and relations' (Knoke and Kuklinski 1982: 10) and, more specifically, between actor attributes, network characteristics and the measures that reflect the actors position in the network. These distinctions are absolutely essential and hold the key to understanding the significance of what writers call the 'meso-level' without being entirely clear about what they mean. Understanding is rendered more complicated by the fact that, theoretically, 'all unitary properties can be defined in binary terms but not vice versa' (Dowding, 1991: 15) and, hence, we must be very careful about why we are treating some observations as unitary 'attributes' and others as binary 'relations'. Dowding is right that things appearing at first sight to be unitary properties, such as 'level of education', 'ideological position' or 'income' are in fact binary in that they only have meaning in relation to other things, especially other people in the network that we are analysing and this implies some kind of relation between the two actors being compared. What we must do to escape this problem is to

realise that the structure that we are interested in is limited to particular kinds of binary

relations that, as discussed under *element 2*, result in the transmission of memes. Any

other structure relating actors to each other vis-à-vis, say, income is an entirely different

entity that does not lend itself to such analysis.[164] Rather than using a relational

expression for such comparisons they are better expressed as unitary attributes which are

then drawn in alongside the network's structural variables in a statistical analysis.

The next stage is to appreciate that a network has many measures that belong to itself

as a whole: the number of nodes, the density, the number of distinct subgroups within the

network and many other constructed measures. We can define a set of network measures,

say, $G$, where a particular measure $G_i=f_i(\Lambda)$, that is to say the network measures are

functions of $\Lambda$, the set of all relations and functions, and they are a function of this set

alone. These measures describe the whole network.

As discussed above, an actor has many attributes such as their political views, club

membership or salary level. These we defined as a set X of actor attributes that stay the

same for the actor irrespective of network conditions, or even if there is no network.

What can cause some confusion, but should also be the key to the most fruitful analysis,

is that there are other things we can say about each individual actor that are dependent on

the whole network. To put it another way, some *network* measures can be associated

with specific *actors*. Examples of such measures are 'the subgroups of which the actor is

a member' or 'closeness of the actor's nearest neighbour'. It is vital not to confuse these

with 'actor characteristics' as they are distinct and not part of set X. They form another

set that can be represented by the expression

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[164] One good reason is that, assuming that everyone is being compared to everyone else, the network structure is trivial. A more complex structure destroys the comparative basis; if some of the, say, income measures are comparable within subset *A* and others only in subset *B*, then conventional statistical analysis is ruined.

$$D_{it}=f_t(\Lambda, i),$$

where $\Lambda$ is the complete set of relations for all actors in $V$ of which $i$ is a member. $D_{it}$ is measure $t$ for actor $i$, and $f_t()$ is the function to calculate the measure. They are like network measures $G$, in that they are functions solely of the set of links and that set only. So, to go back from the formula $[D_{it}=f_t(\Lambda,i)]$ to English, as $D_{it}$ is a function of $\Lambda$ and $i$, it is a 'network measure', it varies as the network varies, but 'belongs' to actor $i$. It can be shown that $G$ is a subset of $D$ because $G_t$ are in fact $D_{it}$ that are invariant over all actor members of $V$. In mathematical notation this means $f(\Lambda,i)=f(\Lambda)$ for all $i$. In other words we can in fact attribute each 'whole network' measure of $G$ to the actors in $V$ but invariant for all actors. Knoke indirectly refers to the $D$ set, including $G$, as 'relational measures'; he defines these along with 'attributes' (X) and 'relations', ($\Lambda$).

## The need for actor attributes

Whether to include the set X in the base set of assumptions or to exclude it is a matter of degree. All models simplify the real world and consequently all should state as clearly as possible the justification for dropping the elements that lead to the simplification. It seems reasonable then to include the existence of the X set of actor attributes as an element of the base set of assumptions. This does not mean, in any way, a rejection of analysis using models that do not take account of such 'actor attributes' but, if a study concentrates on the *element 2* type 'relations' alone allowing pure graph theoretic analysis, justification must be given for why the X set is not considered in the modelling. It seems reasonable to suggest that actor attributes will be brought in on the basis of theory and excluded on the basis of testing. For instance, it could be hypothesised that the rank or hierarchical position of each actor is not a significant factor in an NFP

analysis. This variable can be incorporated into the analysis as an actor characteristic and if the same conclusion can be drawn from the model with or without this variable then it can safely removed from the actor characteristic set. If it turns out to be significant, then it remains and the significance needs to be explained.

## Roles: where do they fit in?

As mentioned previously, the question of roles can be approached from a number of different angles. Within network analysis there is a line of inquiry called structural equivalence which uses an analytical method that groups together actors with similar patterns of relationships. The link from this network analytical method to 'role' is illustrated in a sociological network study of a tailor's shop (Mitchell 1992) where the findings show that the structural equivalence measure correlates most closely to the occupation of the worker. This concept, combined with the discussion on roles under *element 4*, suggests that what we might have considered 'roles' ('civil servant', 'lobbyist', 'minister', etc.) are in fact labels. A network study can determine whether those actors that share a similar 'role label' are structurally equivalent or not. The 'role label' version of a role is clearly an actor attribute and is often one of the first pieces of data that is looked at in an unstructured analysis. To put this actor attribute alongside the constructed 'network measure' of structural equivalence for an actor is clearly a valuable comparison that, given a construct of the NFP according to the elements above, can be implemented. The complication of certain actors having multiple labels should not confound such an analysis, indeed it is conceivable that given the multiplicity of labels likely to be seen that an analysis would not fully enumerate all possible labels, but define

the major ones and group others, leaving the multiple labelled actors to be assigned

according to the rules that are used in such a classification.

# VI. Existing literature viewed through the NFP lens

No method, framework or theoretical approach should stand distanced from other works in the same field. Literature that uses similar techniques, makes similar claims or opposes the interpretation of key shared observations must be somehow tied into the NFP approach.

There are many examples of 'policy network' literature summaries, both those that stand alone and within wider works, which give different viewpoints and are carried out to different levels of detail. Some of the works, for example a 'dictionary entry' (John 2000) or an 'intellectual history' (Thatcher 1998), give a relatively value-free sprint through the central literature and the development of the varying strands, but neither analysis nor criticism are their main aims, so it is through clarification and summary that they help to classify or synthesise ideas. Other authors present a literature review that, while some are less comprehensive and complete than others, act as a preface to the development of a specific viewpoint of where policy network studies have taken us and where they should be going next (Bevir and Rhodes 2003; Börzel 1998; Dowding 1995; 2001; Kassim 1994; Pappi and Henning 1998). What comes through from all of these examinations is the sheer diversity of the views that have been taken on the subject. In the context of the research proposed here a simple literature review is superfluous, especially as this has been done effectively, as mentioned above, by others. What is needed is to revisit the literature in order to identify explicit or implicit assumptions in the works and to summarise the analytical approaches taken.

Networks are both a mathematical and a natural phenomenon. At the very start of any treatment it is important to distinguish between the two. The mathematical concept of

networks is usually very rigorous. Depending on the field (information processing, flow analysis, neural networks, communications networks, sociological networks) the mathematical method will vary and, unbeknown to those who select 'off the shelf', there is a dazzling array of analytical methods available. The natural phenomenon is necessarily messier and less well defined than the mathematical and exists in a multitude of settings. If any kind of mathematical analysis or modelling is to be done of a naturally occurring network, a mathematical network description analogous to the natural network must be found. This is a very basic step and not always easy as mathematicians are rarely experts in the applications and experts in the applications rarely have the wider overview of the mathematics.

We try to remember what almost everyone else seems to forget in ever more refined debates over emphasis, usage and value of differing approaches: networks are important and we can surely have no reason not to describe them better, know the best ways to construct or imagine them and how to best describe the reality or the concept.

Across the whole range of literature, from policy networks merely taken as a vague metaphor to where a complex analytical method is built from a mathematical graph-theoretic approach, assumptions are explicitly or implicitly, always built on the one idea: there is a network here. It is this idea that links together all the studies examined in this chapter and we will see that the way in which it is dealt with varies in rigour, fidelity and intellectual treatment. Often the network world view is adopted without any explicit justification, explanation or discussion of the assumptions that underlie it. What follows in this chapter is a brief discussion of some of the wider literature that sets a useful context in which my approach to NFPs sits followed by an organised examination of the existing literature on policy networks. The former simply relates relevant work on policy

making to the ideas in this thesis while the latter will extract (when explicit) or construct (when implicit) the assumptions on which the various studies are based. One other major oversight that is found in much of the literature is the failure to explain why the reality is being modelled using a given technique, remembering here the comment made in the introduction that 'traditional case study' is also being seen as an analytical technique. In much of the literature it is not made clear how, and if, the method used relates to the network world view and frequently the distinction between variables that are network exogenous and network endogenous is lacking. As well as trying to extract the underlying assumptions about NFPs, the method of analysis will be summarised and a critique will be offered of the appropriateness of the method in relation to the aim of the study and the underlying assumptions.

To add structure and an additional dimension to the analysis of the literature, as well as facilitating the basic aims of the examination of literature, a simple categorisation of the studies is proposed. The categorisation is related to the method of analysis and so also facilitates the comparison of methods and their appropriateness. In terms of the purpose of this chapter apart from a review, it has already been stated that the set of base assumptions, along with descriptions of how studies adopt or diverge with the base set, can provide an anchor point and, in doing so, unify the diverse literature. As this chapter progresses some key points of major divergence are also addressed to see how they lie with the theoretical viewpoint outlined previously.

## How can works on policy network theory be classified?

Some of the existing literature reviews have already taken the step of making attempts at categorisation. Kenis and Schneider offer a six-way breakdown of 'applications of network analysis in the study of policy networks':

'1. A normative or prescriptive use where an "objective need" is expressed in a 'prescriptive network' and this is then compared to an existing network for goodness of fit (and implicitly to detect structural failures in the existing network).

2. The creation of network characteristics (the ones mentioned are graph theoretic measures) and the cross-network comparison of these between nations and or policy domains.

3. The construction and testing of formal models of the policy making process. Here network analysis is the "operationalization" of a formal model. The information required is collected, and the parameters needed for a model are constructed using network analytic methods.

4. To test hypotheses of theories on policy making where they include structural propositions. Also to discover other empirical, especially hybrid, forms of governance

5. To construct environments for applying game theoretic techniques and for measurement in game theoretic models.

6. To examine over time the dynamics of policy formation in terms of structural transformation or stability.'

*(Kenis and Schneider 1991: 44-46)*

Börzel (1997) defines two two-way splits. She identifies both qualitative and quantitative analysis and suggests that they do not compete, but are complementary. She also identifies use of policy networks as 'a typology of interest intermediation' and as 'a specific form of governance'. Within the first main group she sub-classifies those studies that use the networks as an analytical tool and those who go for a 'more ambitious' route of their typology system having an explanatory power. The second main group is broken down into those, again, who use networks as an analytical concept to highlight governance structure and those who are prepared to take the view that the underlying social structures of the network are more important than the characteristics of individual actors.

Börzel (1998), also adopted by Bevir and Rhodes (2003), distinguishes between studies that interpret networks as a form of governance, which are subdivided into power dependence types and rational choice types, and networks as interest intermediation which leads often to typologising.

For the purposes of this paper, I propose a classification that fits my purposes better than these views, although it does not contradict them. In the context of the research

proposed here a suitable framework emerges identifying three streams in the literature. The three streams are:

(a) describing or looking at the world in network terms,

(b) networks used as an organisational framework for pursuing an analytical question and

(c) the use of a network 'world view' as the basis of an analytical method.

Typical type (a) studies would be based on descriptions using network terms, but would not use networks to organise their observations. Under categorisation (b) come numerous chapters in edited books that use the pattern of seeing a network and then building a case study around this, referring only to the network again in the conclusion. Type (b) work also includes what might be statistical or other mathematical analysis where the network has been used to arrange the data rather than the network structure being a source of the data. Type (c) work essentially promotes networks from the level of a framework that organises observations to an inherently essential part of the analysis. Thus, type (c) studies identify a network and from this build up an analytical technique often, but not always, using graph theory ideas. The key factor is that if the network view had not been adopted the analysis technique would not have existed. Note the subtle differentiation between the use of networks as a framework to pursue another analytical method and building up from the basis of the network world view towards an analytical method. Any papers that deal exclusively with the theoretical aspects of debates about networks in political science are excluded unless they come packaged with some analysis of cases or are exceptionally relevant in some other way.

Note that the three-way classification ignores the qualitative-quantitative distinction (as does Börzel, once she has proposed it) and on the other classifications that she gives,

the 'typology of interest intermediation' implies more than simply an assumption of a network world view — it implies that the network must at least have been used as the organisational basis for an analysis (typologising) but, dependent on the strength of the link between the typology and network characteristics, there may not be the requirements for a type (c) study. This is true even in her subsection where the typology is seen to have explanatory power. The second group of 'a specific form of governance' tends to suggest more of a type (a) study, this is especially true of her first sub-category where networks are used as an analytical concept to highlight governance structures, they are unlikely to go further, whereas if the governance aspect is coming from a belief that network structures are more important than actor characteristics it is quite possible that we will be dealing with a type (b) or (c) study.

The first section of literature, as already mentioned above, is not classified in this way. It looks at context setting literature for NFPs that is vital to the ideas that were used to develop the concept.

## Context setting literature
## Richardson and Jordan

In Richardson and Jordan (1979), R+J hereafter, policy making in Britain in the immediate period up to the book's completion in 1978 is examined. It is a tribute to the quality of the work and an affirmation of the wider view of networks that so much of the text is relevant to this study. R+J put forward the importance of groups in policy making as a vital phenomenon that can be seen to impede the development of policies in 'a purely "constitutional" manner' (R+J: 4). Early on, the importance both of individuals, suggesting a broad indication of the *Element 3* assumption, and an understanding of the *Element 6* endogenous variables is seen in the explanation of 'overlapping membership'

(R+J: 9). This concept suggests built in checks exist on group's behaviour resulting from the fact that the individuals within groups are also likely to be members of other groups and bring these interests with them (the example given is that a Parent Teacher Association will have members who are Catholics or members of the local chamber of commerce) or that group pressure can be intensified by such overlapping members. When discussing the splits within groups R+J state that 'it is important to note the considerable importance of internal group politics.' The first sign in their analysis of the importance of network relations or positions, as opposed to the generally accepted narrative language model, is a reference to Latham's idea that the 'officiality' of government actors, compared to interest groups, may be no more than a label and hence not instrumentally different (R+J: 15).[165] They also make an interesting reference to studies of pressure group politics in the Soviet Union where most of the groups were in some way official. This supports the view of this thesis that NFPs exist everywhere, it is the typologising of networks followed by the attachment of the term 'policy network' (or some similar expression) that has led to the narrower view that we will see in other literature. Reference is made to governments, pressure groups, etc. being 'group actors' (R+J: 17) but this is done to align them with other more typical pressure groups rather than to suggest that in an analysis we should consider groups as the units of observation under *Element 3*. In an analysis of policy making models, R+J come to the conclusion that from Lindblom's incremental theory of the policy process the idea of 'mutual adjustment' of policies to satisfy the various group actors is a plausible view of reality. This corresponds well with the policy evolution model put forward in the previous chapter.

R+J argue for the view that 'government is plural and not singular' (R+J: 25). They

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[165] See Chapter 7 for a hypothesis that tackles a similar theme.

back this up with many examples of British cabinet and interdepartmental competition for budget resources; sometimes this is characterised by Departments fighting alongside their 'sponsoring groups' and the Minister becoming a spokesman for the Department and their 'clients', sometimes a Minister's political scruples forcing an attitude of opposition towards some of the Department and their sponsoring groups. Again this suggest that the *Element 6* 'actor labels' are something to be tested for their actual effect in policy outputs rather than them being unquestionably seen as part and parcel of a narrative based model. This direction is reinforced by R+J's position against the policy making process being 'a process played out between the electorate, parliament and cabinet' (R+J: 41). It is shown that many of the highest level policy decisions are taken by tight networks of key senior actors and the institutional settings of electoral wishes and parliamentary will, expressed through a party majority, often have little impact on the policy making process. 'Ongoing problems and constraints force successive governments into very similar policy positions... agreement will be sought within the community of groups' (R+J: 43). An osmosis and breaking down of barriers between government, politics and groups is observed, with former civil servants turning up in the groups (and, nowadays with the Blair government, party and group figures turning up in the higher echelons of the British civil service). R+J usefully point out that consultation is not only a process of inclusion, but value driven. These values emerge in the rating of outside groups, some having intimate meetings with ministers and civil servants, some being consulted occasionally at lower levels and others who may just be copied in on documents and perhaps invited to comment in writing. R+J also note that the civil servants often play a key role in these processes due to their being charged with day to day operations in detailed legislative matters and, hence, the need to obtain technical

assistance from outsiders when breaking new ground in policy making. The particular

exclusion of parliament is highlighted when examining the 1973 introduction of VAT to

Britain (R+J: 46). These early views on the inapplicability of the Westminster model

support the views of this thesis that NFPs are not a new or limited phenomenon. A view

on network relations appears in the distinctions between 'group sub-government' and

'clientelism', where the former involves conflicts within the group populations and the

latter implies departments or agencies that identify with their lobby. A reference to

Suleiman's study of French administration shows that in certain situations 'attributes' of

actors, the *Element 6* considerations, such as their institutional membership, are

misleading; 'some civil servants allow themselves to become lawyers for groups'[166] and

also government is shown in many cases to be bargaining as much with various

manifestations of itself as it is with other bodies. R+J also point out that 'they [former

civil servants] know that the cry, "go to the man at the top" is fallacious, and that it is

often better to go to the chap who drafts the letter rather than the chap who signs it.'[167]

What this implies is that, once again, the generally accepted narrative language and

labels can cover a multitude of network structure patterns and that we cannot assume that

a typical case study language of seniority of actors will reveal the pattern of policy-

making.

R+J note that pressure groups often go out of their way to affect decisions that will

avoid legislation and seek a result in such things as 'undertakings' or moves specifically

through powers other than legislation. This emphasises the importance, alluded to in the

previous chapter, of focusing on the correct policy output. For the purposes of the

theoretical development 'proposed legislation' was used as the output, but it was noted

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[166] Richardson and Jordan (1979: 56) quoting Suleiman (1974)

[167] Richardson and Jordan (1979: 67) quoting an ex-Civil Servant (UK)

that this was only a working convention. Here we see that the output must be carefully considered on a case by case basis. R+J emphasise that from government's position groups are seen as 'the public interest' which means that the unorganised world, although it may be highly significant in numbers, is highly insignificant in real decision making and hence we have a hint at the *Element 1* boundary condition considerations. The compartmentalisation of policy making that becomes evident from studying group influence exacerbates this exclusion of disorganised public, but encourages organisation on the narrow issues as the possibility of influencing decisions becomes clear to those with interests in a particular sector. A tentative shot at R+J's boundary condition could therefore be that those who can possibly influence policy would be considered to be the members of the NFP.

Sabatier (1993) is impressive not only in its attempt to place the work that is being done within the context of advancing political science, but, for once, the authors are often clear about their assumptions. One of the first messages that is picked up from Sabatier is that, as our theoretical formulation in the previous chapter suggested, the policy making process uses information exchange and new information arising from analysis to allow actors to jointly filter policy elements on a cost benefit basis. This procedure when carried out within what we referred to as a network 'environment', rather than in real world situation, imposes low immediate costs. Sabatier sees, however, the whole cycle of formulation, implementation and reformulation as being vital in taking a view (Sabatier 1993: 118-119) and they soon start to make statements that correspond to the six base assumptions. Firstly they address the issue of boundaries, referring explicitly to policy subsystems and they also indicate that they see boundaries as being broader than the old 'iron triangle' conception by taking in journalists,

researchers, policy analysts and actors at all levels of government including the EU/international levels (Sabatier 1993: 119). The ACF assumes that within a policy subsystem actors aggregate into 'advocacy coalitions' that share normative or causal beliefs and that engage in non-trivial co-ordinated activity over time (Sabatier 1993: 120). The former of these criteria is an *element 6* exogenous variable, while the latter implies an element 2 link of 'participation in co-ordinated activity' and an *element 1* boundary condition that this activity should be 'non-trivial' for the actor to be a member of the NFP. Sabatier also assume that some actors may rest outside these coalitions but will eventually join a group or leave out of frustration. This framework immediately conjures up a mental image of what the NFP that contain advocacy coalitions will look like. The allied conceptions of hierarchical ideas that exist within the ACF are discussed in the previous chapter.

Marin and Mayntz (1991b) is an early work collecting together many different views and analyses on the subject of networks in policy formation. The introduction to the book, Marin and Mayntz (1991a), hereafter M+M, sets out the ground for the chapters to come but also gives some pointers to what the prevailing attitude is on the underlying assumptions at the time of publication. As with almost all work on NFPs there is an admission of a vast 'taxonomic and methodological pluralism' (M+M) that is borne out by the differing treatments within various chapters of the work. M+M, however, state that in recent studies:

> 'Policy networks do not refer any longer to "networking" of individual personalities, to group collusions, to the interlocking of cliques, elites, party or class factions, as in older traditions, but to the *collective action of organized, corporate actors* and consequently to *interorganizational relations in public policy making.*'

> *(Marin and Mayntz 1991a) original italics*

This is a clear statement of the Element 3 assumption that group actors, rather than

individuals are the way forward, however, even within the edited chapters to come there are questions about this. The boundary specification issue of *element 1* is addressed at a very broad level: for M+M, a key element of NFP analysis depends on the actor boundary being within a policy domain, no matter what level of government is being discussed, and this assumption is widely adopted. The other assumption relating to boundary specification is that NFPs are defined by their function, this being 'the formulation and implementation of policy', and that 'actors who do not in one way or another participate in the collective decision process generating a policy are not included in the network' (M+M). Here, policy is always taken to be public policy, and so a criterion is implied for boundary specification that includes actors taking part in not only the development of policy, but also the implementation. How practical this is within an actual study is not discussed and we will see below, on several occasions, that a strong idea in NFPs is that those involved in the implementation phase are drawn into the policy formation phase to ensure compliance later. Another boundary specification point arises in that 'only a *few* or *not too many* actors can actually inter-act with each other – instead of simply reacting more or less uniformly' (M+M).[168] This implies that there is some, undefined, absolute limit on numbers which can have implications for the need for boundary specification; it may be, if this is true, that every network is self-limiting in size if it fulfils its function as a network that forms policy and that any other restriction upon the membership of the network is false. On *element 2* M+M do not proscribe how they expect the actors in NFPs to operate. They accept that a full range of relationships covering a continuum from antagonistic to cooperation is possible. It is clear that they are leaving the detail of this subject until the chapters that follow.

The first of the chapters in Marin and Mayntz (1991b), Kenis and Schneider (1991),

[168] original italics

sits alongside the introduction in that it is an overview of the 'policy network' arena where the previous literature is examined. This chapter will be seen to fit in quite well with the conception of the NFP as the view of policy networks as 'a new analytical toolbox' is entirely in tune with and, to some extent, informs the development of NFPs. However, in the paper the conclusion is drawn that, due to the fact that everything can be a network and we require an 'analytical surplus,' the term is reserved for 'a specific class of policy making structures with specific attributes' (Kenis and Schneider 1991: 40) and the concept is placed in a continuum between policy markets, being essentially situations where policy is treated as a good, and policy hierarchies. Despite this notably different conception we can still extract some of the key assumptions behind the analysis as in order to classify a 'specific class' of networks it must be the case that they are described to some extent in NFP terms. Indeed, part of the list defining the policy network covers exactly some of the elements we are interested in. *Element 1* is agreed, and the boundary is considered to be dependent on mutual recognition based on functional relevance and structural embededness. *Element 2* is defined with links being communication and exchange of 'information, expertise, trust and other policy resources' (Kenis and Schneider 1991: 42). The predominance of informal, decentralized and horizontal relations is noted; this suggests, a priori, that individual actors may well be the assumption behind this – the concept of informal relations between institutions suggests another, vital, level of personal interaction but in fact *element 3* is overturned and the nodes are taken as public and private corporate actors (Kenis and Schneider 1991: 42). *Elements 4 and 5* are not clearly addressed as the definitions are approached in the manner of a 'toolkit' and not a specific empirical investigation, although due to the definition under *element 3* of corporate actors, this is a question that may have been

usefully considered, in many other areas the value of leaving questions to empirical verification is supported, this advice is missing for the corporate/individual question. This work cannot be placed in the categorisation of the literature as the toolkit concept allows for any of the approaches to be used although network thinking is seen as a mainly metaphorical illumination of empirical work, meaning that the greater part of thought in this chapter should fit into the type (a) thinking. The conclusion shows the sympathy between Kenis and Schneider and this thesis as it is suggested that while empirical results often only confirm intuitive (or soft) observations that a proliferation of actors leads to difficulties in such intuitive conclusions (Kenis and Schneider 1991: 48).

Five other chapters in Marin and Mayntz (1991b) rack up three type (a) analysis, one type (c) and a tentative (b), suggesting both that the categorisation has some sense and that the book contains some reasonable variation.

## Type (a) studies

Pappi and Knoke (1991) is a type (a) study using a network world view combining *element 2* aspects of agent-based dependency and influence exchange. Overturning *element 3*, the study assumes corporate actors and further on *element 1*, assumes that they are connected to each other if they share interests. Not being a mathematical graph-theory study, these multiple links do not appear to cause major upsets, but setting the ideas against the set of base assumptions is enlightening. The study shows matrices that represent 'interest in events' and 'control over events and results' but there is no reference to actual existing networks, all the exchanges are potential and there may be, in fact, no actualised link between actors. What is suggested is that the results of this analysis give an indication of the real exchange processes. Unfortunately this interpretation seems to ignore more complex 'paths' round a network and ignores the

major reason for utilising network constructs. Referring to the base assumptions in such a study could help to clarify the link between claiming a network conception and carrying out an analysis that ignores basic network ideas.

Döhler (1991) raises the idea of resource dependency, referred to previously as being more of a shadow network of NFPs, although the conception of such resource dependencies being represented as links, let alone being actualised or measured, is glossed over. There is no other manifestation of the *element 2* definitions. On the *element 3* definitions the actors are defined as being 'corporate' but there is also some looseness in this definition when government is taken to exist of multiple sub-corporate actors. In terms of analysis this is very much a type (a) based study with the network being a very long way from an analytically framed concept. One of the hypotheses being tested is on a question of whether overall numbers in the network can be an influential factor in policy making, which leaves unanswered some very important questions concerning the lack of *element 1* boundary setting.

Jansen (1991) is a purely type (a) qualitative study. The 'links, actors and boundaries' are accepted but actors (*element 3*) are considered to be individuals, this is justified by the scientific nature of the policy area as in scientific matters it is personal expertise and reputation that distinguish contributions to policy. This approach supports the idea that the individual actor is the lowest level, to be departed from if the empirical evidence is convincing. The explanatory variables used in the analysis are intentions and resources; while resources could justifiably be seen as an *element 6* factor, it is clear that intentions would be difficult to slot into this framework and so, apart from a type (a) network world view the analysis takes place in an entirely different methodological field.

Schneider and Werle (1991) causes a little difficulty in the classification as the paper

uses conceptions of exchange and bargaining in a network, which one would assume would be followed by some kind of network based game-theory, but in fact the analysis turns out to be based on a method that maps circles, sized on influence and reputation, on an x-y scatterplot chart of similarity of interests. The actual links are therefore neither defined nor used. Once again we have what seems to be a network study that does not use a network method where one would normally thought to be indicated. It is tempting to imagine the influence as being an link that creates the network with reputation somehow determining the strength or importance of these links. The interests could then be grouped and each actor being assigned a group label as the element 6 variable. This process, however, is not the analysis given and so we have a hybrid analysis classified here as (a) but may be considered (c).

Marsh and Rhodes (1992), hereafter M+R, is often taken as a key text in the development of policy networks and, hence, it is important to examine how, or if, the references relate to the six base assumptions. Chapter 1 offers a 'critique of existing approaches' that is equally informative on the approaches of M+R as on those that they examine. Partly due to the chapter presenting the history of policy networks more as a 'struggle of ideas' rather than 'a history of thought'. The over-riding impression is that throughout the chapter there is confusion about exactly what is being discussed and pinning down anything that corresponds to any of the six, very important, base assumptions is difficult. The terms 'policy networks', 'policy network analysis', 'policy network approach', 'policy network model' and 'policy community' with other similar terms are bandied around without being defined in relation to a fixed point. In the second paragraph we are told that the introduction 'deals briefly with the relationship between the policy networks approach and the pluralist and corporatist model' and hence, we are

confused. If the words here had been 'the policy network model' we could have been sure that the term 'model' is being used in the sense of a style, pattern [or mode?]: 'the European model of town planning" or "the French new-wave model for film-making.' However, the use of the word 'approach' here tends to signify that it is the broader field of 'policy network analysis' under discussion. Even at its weakest this must mean an analytical approach to examining policy formation based on the idea that we can use at least some of the ideas of network analysis methods within our discussion. If this is so, then the relationship between this *approach* and the pluralist and corporatist *models* is clear. We can look at these two models using this approach in order to i) see how useful it is to do so and, ii) try and get some new information by doing so.

It very soon becomes clear that this is not what is intended. The words 'approach' and 'model' are confused with 'type'. 'Analytical method' is never mentioned, while sometimes 'approach' takes this meaning and sometimes 'model' does as well. Regally standing atop the list of terms is 'policy network', only ever once defined, via a direct quotation, as 'a cluster or complex of organisations connected to each other by resource dependencies and distinguished from other clusters or complexes by breaks in the structure of resource dependencies' (Benson 1982). This definition, for me, confirms that any and every policy formulation process must have a policy network attached to it. The neglect of M+R here is to recognise anything akin to *element 1* and the accompanying implication that by accepting this definition we must recognise the need to discuss the boundary definition problem and understand it <u>before</u> we start typologising.

Considering whether there is 'broad agreement that it is a meso-level concept' (M+R: 1), we can to some extent agree with Dowding (2001) that the term meso-level is a redundancy, however, it is possible to look at the way that network analysis produces

functions of both node and network that lead towards this 'meso-' descriptor (Knoke and

Kuklinski 1982). The use of the term by M+R in this chapter does not lead us any closer

to understanding if they conceive of the network in a similar way to Knoke and

Kuklinski, which would lead us into the base assumptions, and despite a lot of power

being assigned to the term, it is not clearly explained.

> Network analysis emphasizes continuity in the relations between interest groups
> and government departments.... The existence of a policy network both has an
> influence on ... and reflects the relative status of the particular interests in a
> broad policy area.

*(Marsh and Rhodes 1992: 1)*

Forgetting that the term 'policy network' used in this sense could be taken as a misuse

of such a term, this extract gives us some first clues about the true network elements in

M+R's analysis. We can surmise from the quotation that M+R are considering contact

between actors as being the essential *element 2* style link in a policy network, although

they seem to value strong links that persist, suggesting an *element 1* style boundary

condition for membership of such a network.

Smith (1992) discusses the agricultural policy community and in questioning the

traditional corporatist account of the sector he sees network ideas as offering a more

satisfying explanation. He starts of with the assumption that it is a 'closed policy

community' and then looks at the chances of it being opened. Some of the work later in

this thesis is presaged as he shows an understanding, related to *element 6*, of the ability

of network structural features to contradict actor properties when he suggests that there is

a blurring of the distinction between those governed and the governors. He starts to

move some way towards an *element 2* definition of links in his criticism of Jordan

(1981) by suggesting that the pluralist account confuses large numbers in the arena and

large numbers with power, thus making the implication that the policy network's links

have something more than the existence of actors in the arena and furthermore suggesting that influence (why else would we gather power?) is a valid link definition. In his description of the network Smith also extends this understanding of link relations in discussing the distinction between inner circle, which consists of intimate day-to-day contact, and outer circle, which consists of issue-occasion groups. This suggests that frequency of contact and contact on multiple sub-issues in a policy domain constitutes strong-linkage in a policy network definition. The chapter displays a quite sophisticated use of networks but puts this within a case-study type framework.

Wistow (1992) talks about values and interests in the context of influence and uses terms such as 'opening up' and 'vertical interdependence' while making no real network points that can be related to our analytical framework. This chapter qualifies barely as a type (a) study.

Saward (1992) on the civil nuclear network seems to understand the need for clarity if there is to be any explanatory power from networks and that this is possible only if 'we start with the network image as such rather than this or that type of network as set out by Rhodes... [because] the type of network involved in the nuclear field is more than a semantic question; it is crucial if we are to assess the utility of the network image' (Saward 1992: 76). Saward then adopts the Rhodes typology and understandably has difficulties in managing to use the vague suggestions therein with his aim of linking geometry (in which he ends up being reassuringly specific albeit in a stylised way) with the effective use of resources in obtaining power. Saward usefully critiques the mixed basis of Rhodes' typology that mixes some distinctions 'according to dominant force, others ... according to the degree of insulation and integration' (Saward 1992: 79). The understanding of geometry in networks reveals that he has made some assumptions of

what a link must be, because to draw them as he does in differing configurations, that idea must exist even though it may not be explicit. Such links as 'accountability to', 'funded by' and 'creating policy with' can be seen in his narrative. He also distinguishes between permanent relationships and other types of links that are more temporary in nature such as giving evidence at public enquiries. There is some mixing of the *element 1* definition as organisations are mainly used as the actor, but there is also considerable discussion of the centrality or otherwise of experts in the process, without clear explanation of how individuals involvement is aggregated to groups' structural position. Overall though the chapter makes use of some sophisticated ideas that can be taken further with network analysis techniques; it could have been a truly network based analysis method, but in the end is type (a), looking at the world in a quite sophisticated network way.

Marsh (1992) excels in appearing to miss the point from the start. He maintains that the key question that policy network literature should be concerned with, yet fails to answer, is 'whose interests are served by *such* institutional relationships?'[169] This begs the question: 'what institutional relationships?' We again face the assumption that policy networks encompass only a limited range of relationship geometries. Marsh then goes on to identify the plethora of network types that now exist without realising that to contain this diversity a formal measure, even if it is approximated later for both definition and identification purposes, has to be at least discussed. The 'tripartite' nature of the 'policy community' (or is it a 'fairly loose policy network'?) is contrasted with other formations but we are never sure what the network consists of. For example, does the TUC's *network* role really change because 'it criticised the Thatcher Government's economic policy, calling for reflation' or is this the event that caused the network role to change? Is

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[169] My italics

'role' really the word we are looking for or is it 'structural position'? Can local technical college staff's changing relationships with managing agents of the local schemes really be a question about *'policy'* *'networks'*? Even if we retain faith that it is, we never find out in any detail why it should be so. The conclusions seem to have little to do with networks either: this is illustrated if the words 'policy network' or 'network' are replaced with 'policy process' in the following quote. It shows that there is little or no value added in this use of this version of a network concept.

> Overall we have identified a policy network which has clearly affected outcomes, but in which the exact nature of the relationship amongst participants has changed. However it is a network which has always been quite complex and which has tended to be dominated by government.

*(Marsh 1992)*

This work can be described as an ill-defined type (a) if it deserves to be classified at all.

Marsh and Smith (2000) provides a great deal of unhelpful meta-analysis based on some questionably useful diagrams and some demonstrably poor terminology (Evans 2001: 543; Raab 2001: 556). However, there are also some useful pointers towards how and why the set of base elements that we proposed are useful. The use of *element 6* attributes alongside the rest of the network defined in terms of structure is clearly laid out (Marsh and Smith 2000: 6). There is an explicit understanding of this endogenous (structure) against exogenous (environment) distinction and a worry that existing work (as can be seen by the way this review is structured) tends to stress, even to exclusion, one or other of these factors leading to a false situation as in reality they form part of a whole (Marsh and Smith 2000: 7). The hypotheses that are to come in the next chapter are also linked to this recognition and are presaged here: 'exogenous structural positions, for example based on class, gender or ethnicity, may be both more important generally

and reflected in network membership' (Marsh and Smith 2000: 7). Such a claim, with the '...*may* be...', suggests this should be empirically tested.

## Type (b) studies

Cunningham (1992) recognises, in line with this thesis, that individual case studies related to decisions, rather than 'grand' issues and broad patterns of relationships within a policy sector, must show utility in order to assign value to the policy network approach. In terms of her assumptions, she talks of mapping interactions, at least a broad recognition of the need for identifying the *element 2* of links. She also realises that we cannot merely talk of 'the engineering profession' as 'more than one branch of engineering is involved and therefore more than one professional body' (Cunningham 1992: 120). This idea is not, however, extended to moving from the individual up to a suitable definition for this case, so *element 1* is left hanging somewhat. *Element 6* is clear throughout as the key variable that is being related to a network structure is the actor attribute of whether the actor is an engineer or not. Cunningham generally defines well and makes good points about using networks in this type (b) study.

Stones (1992) starts off well in terms of making clear assumptions. His aim is to reveal some of the 'hidden wiring' in the international finance sector of UK policy making and he usefully defines his *element 2* links as '"face-to-face" interaction in the policy-making process,' rejecting simply similar interests and he also adds an explicit and imposed boundary condition on his actors that they must be participants in certain 'specialist organisations and policy-making institutions' (Stones 1992: 207). The case study is then carried out given these contexts but not analytically based on a network methodology.

Peterson (1992) also offers, as others before, an analysis based on the 'tightness' or

'looseness' of the policy network, but the measure is based only on an impressionistic reading of a traditional narrative.

Heinz et al. (1993) is notable for the fact a broad conclusion (the hollow core) about policy making is reached by using methods that fall into the b/c category. However there are some unusual elements in their analysis; it is not clear why, for example, the use of smallest space solutions is used as opposed to graph theoretic formulations when looking at actor centrality. The early chapters of this work consist of exploratory data analysis (EDA) of the *element 6* type exogenous actor characteristics and chapters 5 and 6 consist of regression analysis of these variables. Chapters 7 and 8 address the *element 2* questions on link types, but the analysis of 'frequency of contact' is not a graph theoretic network analysis, but rather a regression analysis on these variables, with the *element 3* 'individual actors' as the units of observation. Chapters 10 and 11 consist of smallest space analyses on a transform of the *element 2* link strength variable with *element 6* variables of 'interests' and 'political positions'. Heinz et al. therefore achieve in some measure what we are setting out to discover: they build an analytical method on the network world view and, as a result, they gain an insight that would not be available without this view. What they do not do though is to use the inherent mathematical nature of networks to uncover structural or other factors that are only revealed when a network world view is adopted and are unique because only a network can be analysed in such a way. This is the crux of the issue that we introduced in Chapter 1.

## Type (c) studies

Laumann et al. (1991) carries out its sampling on a graph theoretic conception and the study then concerns a smallest space problem over interests. The study also concentrates on changes over time, something that we earlier excluded from our field of interest. The

boundary condition of *element 1* is effectively stated where networks are said to exist within the boundaries of a policy sector, but the true boundary condition becomes a bit less clear cut when the sampling is considered. The sampling is based on some initial questioning to narrow the field and the true conditions seem a bit vague (although the method used is clearly stated). Element 3 is covered with a clear focus on organisational actors and the element 6 variables are interests/ preferred outcomes. This is though again a network study without any defined links, the membership of the network is partly determined by the strength of links to others (contact often or episodically is a factor) but the network is taken as unit of investigation with the element 2 missing. This is clearly a type (c) analysis.

The introduction to Read (1992) looks straight away like a type (c) study as he promises to explore 'the distinction between the closeness of the relationships in a network and dominance within that network.' Element 1 is quite explicitly addressed in discussions about those at the core of the network being this or that body, corporation or government department, although no clear reason is given as to why his comments about 'close relations with senior civil servants' or 'direct access to the Chancellor' (Read 1992: 130-131) does not merit, for him, a push into the network of individuals. Some understanding, at least in Read's attempt to ascertain if the network is a 'producer network', exists of the link definition element 2; 'a producer in a policy network attempts to influence government decisions in a way that either benefits it, or at worse, minimises its cost of compliance with the policy' (Read 1992). In the end this study turns out to be typical in that the introduction offers a sound basis for a truly network based test of some hypotheses, the content offers some correspondence with a well defined network analysis, but not enough and in the end the conclusion is drawn from broad

observations collected from the narrative, rather than from constructing an approximation of a network and drawing the conclusions from a limited, but relevant, construct.

Schneider, Dang-Nguyen, and Werle (1994) is another paper which bases itself around a bargaining and exchange model but within a network context. Element 3 seems to be undecided, while there is a clear preference for organisational actors, individual experts are considered to be important in the networks as well. Although used in a restricted construct (relations only from the European Commission to other actors are considered, ignoring any potential interactions not with the Commission) the relation used is defined as 'intensity of information exchange and co-operation', this is well defined and corresponds with the approach taken in the boundary definition for links and the interviews in this thesis. Element 6 factors are also brought into play, as so often in the studies we have seen, through defining the actors' similarity of interests. There is some use of graph theoretical methods and an analysis that uses mapping sized circles (influence reputation). It is not evident why this approach is used when there is a more appropriate and purely network based method of analysis that would look at path lengths with strengths. This qualifies as a type (c) study, where the network view has been used to create an analytical method, but it would have been even more so had a network analytical method been used giving a logical link between the conception, the data collection and the analytical tool.

König and Bräuninger (1998) uses element 6 attributes of interest similarities and correlates these with the network relations (send, get information, doing a favour and accepting support) on a graph theoretic basis. The work moves into an area that is not

covered by this thesis, but which demonstrates the importance of well defined network studies for politics if they are to be used at all; that of how policy networks are formed.

In John and Cole (1998) all the necessary elements in the base set are not only defined, but discussed and the method that is to be a basis of comparison between two networks is explained and reasons given for why it will be interesting. The results are given visually to aid understanding of the analysis, which is original and integral to the question and the method of investigation. A tight and complete type (c) analysis.

A highly complicated dynamic modelling based on some graph theoretic notions (access-possibility) with resource exchange modelling is offered by Stokman and Berveling (1998) . It is not, however, enormously illuminating in broader political science terms and is more impressive for the construction of the model than the political analysis. This is a thoroughly novel type (c) analysis which could not have been conceived of without a network foundation, but the concept of network linkages due to shared policy positions or access to similar resources does not really fit in with the NFP conception.

Melbeck (1998) offers a study that uses graph theory analysis (centrality of actors and density of graphs) in a straightforward yet sophisticated methodology that also offers good reading in the narrative as well as the methodological explanations. The paper proposes, somewhat like this thesis, to 'view the same object from various aspects and describe the different aspects thereby revealed' Melbeck 1998: 553). The elements 1 and 3 are discussed and defined as well as an explanation of the link relations used in the study. Those influential in local community issues in two towns are identified with various techniques, whilst defining a boundary upfront. A survey questions these actors on various different relations that they have with other actors, both generally and on the

policy issues on which the study focuses. These results are subject to an analyses that reveals concrete findings that the relation type used alters the structure of the network and also a general finding proving that networks can display somewhat pluralist and corporatist features at the same time (Melbeck 1998: 551).

Pappi and Henning (1998) addresses in a direct and useful way many of the elements of the base set. An element 1 definition is approached first by the idea that a 'policy network' should in fact be termed a 'policy domain network' as it is most useful when it relates to a single policy and then proposes that something like a 'snowball' method of discovering actors should produce a closed system effectively defining a boundary through questioning on 'who is influential in the domain' to get those who influenced policy (Pappi and Henning 1998: 554-555). This procedure is very close to the one that is described in Chapter 8 of this thesis. In the more advanced analysis though, the element 3 aspect is overturned to set collective actors as the actor and, for the first time in this review, *element 5* is addressed when the diagonal of the network matrix is set to measure the internal strength of the composite actor. Element 2 links are explicitly defined as information exchanges. Stylised networks representing ideal types different governance forms under these assumptions are then created and these are used within a model of political exchange, which need not concern us except that to note networks are being used as a building block of a wider explanatory study.

Pemberton (2000) investigates the place of network theory in policy learning. On the way he usefully covers much other ground. He is rightly worried that despite the Marsh and Rhodes typology being constructed across four non-binary dimensions that no-one seems to be able, or be inclined, to use it except by referring the two of the corners[170] of 'policy community' and 'issue network' and he is quite keen to emphasise that terms

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[170] In a four dimensional sense

should be defined. On links he says that the relationships must involve dependency if we are to have a useful network representation, when he constructs his network he is specific about which relationships he is using in each case, and he clearly puts forward both individuals and group actors as valid nodes in his schema. He also explicitly addresses the element 6 by assigning actors to one of five groups, thus giving each one an endogenous actor attribute. The one element that is not really addressed is the element 1 boundary definition for nodes, although an exhaustive list is not needed for his analysis. He builds an analysis that combines the illustrative power of networks with policy learning ideas and falls comfortably into the type (c) category neatly proving that use of networks does not have to be over sophisticated and computationally complex to provide value added.

It is fortunate that this, the latest of the type (c) studies comes last as it allows the conclusion to be drawn, from this work and all the others that have been examined, that it is not the theoretical complexity of the analysis that leads to a good network study but the appropriateness. The less good studies that we have seen have mostly not lacked insight but clarity and where networks give most leverage on a problem it is where the recognition of their existence is tied most closely in to the analysis method that is selected.

## VII. Hypotheses for analysis

The overall shape of the hypotheses being tested in this thesis was laid out in Chapter 4. The process of defining the specific hypotheses (called 'third-level') that would be tested in the analytical work was postponed until the theory and definitions for NFPs had been developed. This chapter now develops these third level hypotheses.

The hypotheses relate to the three broad questions that were outlined in Chapter 1 and around which the drawing together of threads from the case study were arranged in Chapter 4. Additionally, in order to escape from the self-referential frame, it has been decided to adopt third level hypotheses of external interest; two on the theme of 'the language of politics', one examining the how developing 'small worlds' theory might relate to the classification of NFPs and a study of whether different measures of centrality in the network correspond to some 'power' or 'importance' derived from the non-network information. These hypotheses will, aside from their own inherent interest, also be used to demonstrate the general value of NFP analysis (hypothesis 1) and show that it is operable across countries (hypothesis 2). This will be done by the process described in Chapter 4 whereby we use the new knowledge created via the NFP analysis from our proved hypothesis about features of the policy process and use it to make a defensible claim about policy outcomes that would not have been defensible from the case study material alone.

## Four hypotheses

The broad question concerning the working methods in the network is addressed by examining the extent to which actors, grouped by different labels, are interacting with those within their group compared to outside or how they are (dis)similar in their

structural connections within the NFP. It is this investigation that also looks at traditional case studies' political language. Language is used as a summarising mechanism for a multitude of variables concerning the subjects of investigation.[171] Take for instance the statement that 'a minister discusses spending decisions with members of the party'. A case study might then compare this minister to, for example, a civil servant, who does not have any contact with a political party. Similarly, a distinction may well be drawn between the interaction patterns of three actors, two of whom are from academia and one from industry. NFP analysis is able to establish whether there is any structural content behind the language and labels such as academic, minister, industry, cabinet or Treasury. There are other kinds of content in these labels as well but to show that they do not correspond to structural factors of the political network would be a significant finding. To investigate this area two hypotheses are proposed:

1. **Hypothesis 1**: Actor's functional labels have no structural content.

2. **Hypothesis 2**: Organisation labels have no structural content.

The broad question about what aspects relate to the policy process' success or failure is addressed by looking at the communication efficiency in the network compared to the outcome. This will be addressed by the theory of 'small worlds' which is of growing interest in all kinds of sociological study and can be seen as highly relevant to policy making. This is especially so in the broader context of this thesis where NFPs, if seen to be small world in nature will suggest contradiction or weakening of existing policy network theory and lead to an alternative, more useful way of describing the network.

3. **Hypothesis 3**: NFPs exhibit the 'small world' property.

The remaining broad question on who is important and what makes them important is

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[171] See also comments in Gerring (2004) on language within case studies.

to be founded on centrality measures and how the NFP structural measures of centrality correspond to other measures exogenous to the structure. The fourth hypothesis tests this within the context of the thesis.

4. **Hypothesis 4**: Centrality measures correspond to some given exogenous actor attributes of the network.

## Hypothesis 1: functional labels

This hypothesis will test whether the actor characteristic of 'functional label' corresponds to calculated network measures. The functional label is an exogenously assigned variable that groups the networks actors according to the description that could be expected to be allocated in a traditional case study through the use of accepted generalisations in political language. Roles, of course, contain many layers of meaning and much content. As well as the structural level that we are attempting to test, roles also have an institutional aspect of both formal and informal rules, a psychological aspect for both the role holder and those with whom she relates and, as roles are an ill-defined bundle, possibly other content such as task definition and, useful or not, some guide to the prevailing institutional norms. These various elements are taken into account depending on the whims of the analyst and/or the needs of the analysis. This hypothesis attempts to test whether these common labels contain consistent information about the structural relationships that actors have with other actors in the network. We do not have to hypothesise what various structural positions may imply in being related to different functional labels, although we may learn something interesting in this line from the analysis. We merely have to see whether different network structural roles tend to map onto functional labels or whether there is no correspondence. Both the advantage and the danger of the traditional case study approach is that its analytical method is to a large

degree hidden. A fact that is often ignored is that even traditional case studies carry the hallmarks of a model; the world is reduced in complexity and the information that remains is used as a proxy for the real world in seeking some truth that can inform us more widely than the data from which it was derived.[172] The difference between case study and more formal modelling is that in case studies a considerable body of heuristic devices are used to reduce the complexity of the world rather than explicitly selecting to reduce the variables that will be included in the analysis. The clear advantages of the case study can be seen, for example, in that it may use as a complexity reducing shorthand the 'functional label', pigeon-holing an actor as, say, a 'lobbyist' and we will all know immediately what this signifies without recourse to complex equations and data schema. The disadvantage of such a step is that we may all know what it signifies, but that the thing we know can be different for all of us because the assumptions are not explicit and we do not have to seek agreement over our understandings nor can we exhaustively test agreement even if we were inclined to. Furthermore, all of us - including the author - may be wrong: when the commonly held meaning behind a label is unpacked and tested, its content may prove to be misleading. Such 'labelling' and its correspondence to the idea of 'roles' is a complex area of investigation, a comprehensive analysis of the difficulties and some of the reasons why the use of roles in political[173] study has been limited is given by Searing (1994: Chapter 1). As discussed under *element 4* in Chapter 5, the theory of roles tends to have a dynamic element when one considers a policy network, but often the general label or role assigned in a case study is static. The NFP analysis aggregates relations over the time defined and so therefore will present an aggregated view of whatever transient roles may have been played. This does

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[172] There is more discussion of this in the conclusion Chapter 10.

[173] In this Searing the cases are specifically legislative.

not negate the analysis as for the purposes of this hypothesis we will assume that a corresponding case study and the 'functional labels' that we have as actor characteristics are also static, aggregated perhaps, over time in the usual heuristic way. Whatever a role may be, it cannot fail to imply some structural implications. Either roles have embedded within them some structural content (e.g. as a lobbyist, I maintain a dense network of contacts) or some there is some structural corollary to the package of received interests and norms that forms the core conception of role. (e.g. the role of a 'dependable departmental minister' implies a different set of relations to a 'strong policy-leading chancellor'). What we are testing is whether these commonly understood roles do have an impact on the patterns of relations in an NFP or if, in fact, the patterns result from the exigencies of policy making and ministers may play the role of 'administrator' or 'conciliator', neutral civil servants may act as 'lobbyists' or 'advocates' and lobbyists may be 'experts' rather than their academic colleagues who we would expect to play this role.

There are two main structural measures that we can consider for an analysis of this type: cliques and structural equivalence, while cliques are simpler to understand and construct, structural equivalence is closer to the usual conception of a role. In network analysis if two actors have the same (strong equivalence) or similar (weak equivalence) sets of relations with other actors in the network they are said to be 'structurally equivalent' (Knoke and Kuklinski 1982: 59). One of the interesting things about structural equivalence is that the actors that display it can be isolated from each other yet have exactly the same relationships with other actors. This makes it an ideal measure for hypothetically constituting a significant proportion of functional labels.[174]

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[174] To confuse matters slightly these patterns of structural relationships in network analysis are sometimes known as 'roles'

Cliques are most easily understood by reference to the usual meaning of the word in English and can be imagined as a group of actors that stick together more closely than they do with actors outside the group. Cliques refer to a collection of nodes that is densely linked within itself, the most rigid definition being that based on a 'maximal complete subgraph' (Knoke and Kuklinski 1982: 56). This strict definition defines a set of nodes that is completely connected yet not within a larger completely connected set.

## Hypothesis 2: organisational labels

This hypothesis will test the actor characteristic of 'organisation belonged to' against the network structure. This is another test of the value of political language in case studies. When, in a UK case study, one talks of a Civil Servant, Special Adviser, Minister coming from the Treasury, whether they be expert or generalist, top-ranking or lowly, the organisational label carries analytical power in the hidden assumptions of narrative method. One assumption that can reasonably assumed to be included in this hidden multi-dimensional mix could again that of 'structural equivalence', but this time is more likely to be somehow connected to the concept of a 'clique'. That is to say that when we have identified the various members of the policy making universe in our case study and allocated them to their organisations we would tend to subconsciously model in our head that they are in closer contact with those with whom they share an organisational label than with others in the process. This hypothesis will test whether this instinctive feeling that arises from the use of organisational labels in case studies has any basis in the NFPs that we have constructed.

## Hypothesis 3: small worlds

The classic example of the small-world phenomenon is the legendary 'six degrees of separation' whereby it is suggested that everyone is connected to everyone else in the

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world by six connections or fewer. Whether this is in fact true or not is a matter for

debate (Kleifeld 2000). The essence of small worlds is that, despite high 'cliquishness'[175]

of a network, the path lengths to all other actors (that is not just those in each actor's

locality) can still be very close to those seen in a random network. This is particularly

interesting for the impact that this property may have on the validity of the

Marsh/Rhodes continuum for policy networks. Assuming that the continuum has some

structural content,[176] it seems to be based on the idea that there are networks that are

similar in some way, called policy communities, that are 'integrated' in the sense that

they have only a 'core'. This language seems to imply closeness in the relations of all the

actors of a 'policy community' and would suggest that, at least one measure that should

correlate with this is the global efficiency of communication across the network. The

other end of the continuum is the issue network (we ignore here the criticisms mentioned

in Chapter 6 that the continuum conflates several variables) which suggests some kind of

a 'core' of actors with a scattering of peripheral actors who are involved but not tightly

connected with the rest. This implies, in structural terms, that the core has good local

communications and that each peripheral area might talk well to themselves but that the

overall network is less good in terms of overall communication. I propose that the small

worlds property can expose that this non-formally backed set of assumptions about what

networks 'look like' compared to how they actually behave is fundamentally flawed as

basis for analysis. There is no reason why, given a *very* small number of shortcuts from

one part of a network to another that an arrangement of actors that looks like an 'issue

network' should not operate in almost exactly the same way one that looks like a 'policy

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[175] This word describes the extent to which all of the actors in a network are found to be in cliques

[176] Implied at least in Rhodes and Marsh (1992: 23) and Marsh and Rhodes (1992a: 251). The typology also relies on other aspects of the network but structure is heavily implicated.

community'. In order to actually know anything about how a network will behave some knowledge of the structural properties of the network is needed and hence formal analysis, even of the most basic type, must be carried out. A useful labelling of networks, that says something very specific about exchange of ideas and influence, is whether a network is small world or not. This hypothesis narrowly suggests that the NFP studies here will exhibit the small world property and broadly proposes that NFPs will always show the small world property implying that much of the muddily explained difference between policy communities and issue networks are superficial and only on the level of false impressions. It is my contention that a NFP will organise itself to be efficient on both a local and global level irrespective of whether it has a single closed core or whether it has numerous offshoots of peripheral groupings of different sizes and types. Both the key decision makers in the network and the periphery groups (if they exist) will find it in their interests to create a 'small world' which as we will discover in the paragraphs below, is a process that has been found to be much easier than intuition would suggest. It can be strongly argued that testing for the small world property and seeing to what extent and in what way it is held by a network gives us more information about the real properties of the NFP than assigning a place in the Marsh Rhodes continuum can do.

## On small worlds

'Small-world' networks have been widely studied recently in many fields that use network analysis and the implications are often dramatic. One thing that is important when transferring to the context of NFPs is that the networks tend to be much smaller, even than by some power of ten, than the usual networks that are studied in small-world investigations. The difference in size of the networks means that we may well not see

***Figure 7.1: Illustration of rewiring to produce shortcuts moving from regular to a random network as the rewiring probability p increases***
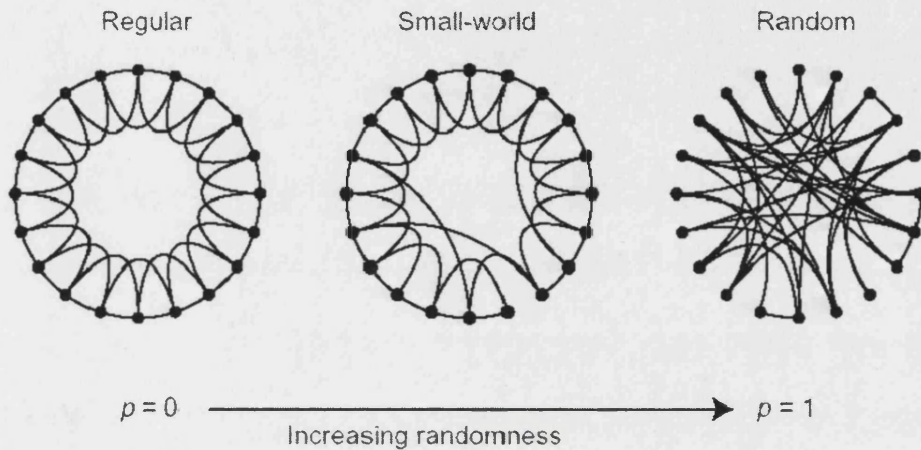


*(Watts and Strogatz 1998)*

such dramatic results, but theoretical work using simulation on networks of a comparable size shows that the range of potential configurations is large enough to be able to distinguish small world properties (Astill 2004b).

The most informative work for our purposes on the theory of small-worlds is Watts and Strogatz (1998), hereafter W+S, which, perhaps surprisingly given the mathematical approach they take, throws open the door onto a world of applications and further investigation. They start off by showing how a regularly arranged network, where every actor is linked only to their k nearest neighbours, contrasts with a random network where there is no 'locality' at all and network links can occur to anyone, anywhere (Figure 7.1).

The movement from the regular to the random can be carried out by 'rewiring' the network.[177] Each link in the regular network is rewired from its original position in the regular graph to its new random position. Small-worlds, it is proposed, fall somewhere between these two extremes. They are obtained when, rather than rewiring every link to a random place the links are instead rewired with some probability p. When this

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[177] Also called a 'graph' by mathematicians

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probability is zero, no links are rewired and the graph stays regular, with p set to one, all

the links are rewired but somewhere in between, curious things happen.

To understand what the curious phenomena of small worlds really means it is first

necessary to think about what some features of the two extremes are: this also helps us in

our transference of the mathematics into useful parallels in political science. When the

graph is regular the 'locality' factor, also known as the 'cliquishness', is very high.

Everyone at any point of the graph only knows people who know several of his friends

and even his friends' friends that he does not know are still well connected in his

locality. However, this regular arrangement means that in order to discover a connection

to whole swathes of 'non-local' nodes the number of nodes that need to be passed

through is generally very high. In fact, for all of the nodes, most of the graph is only

reachable through multiple node connections; this gives the graph a 'long average path

length'.

The random graph is, not surprisingly, opposite in these properties; there is very little

'cliquishness', it happens rarely that one node's neighbour will know many of his other

neighbours, however average path length is short as there are so many cross cutting links

to every part of the graph.

What Watts and Strogatz show is that as the rewiring factor, p, increases, the change

in these two characteristics is not as we might expect through intuition. In fact, the

average path length drops rapidly as just a few rewirings are made while the cliquishness

remains high much longer before falling away. As p increases, 'each short cut has a

highly non-linear effect on L [the path length], contracting the distance not just between

the pair of vertices that it connects, but between their immediate neighbourhoods and so

on' (W+S: 440). Each link removed from the clustered neighbourhood has, however, at

***Figure 7.2: Characteristic path length falls off long before the clustering coefficient drops***
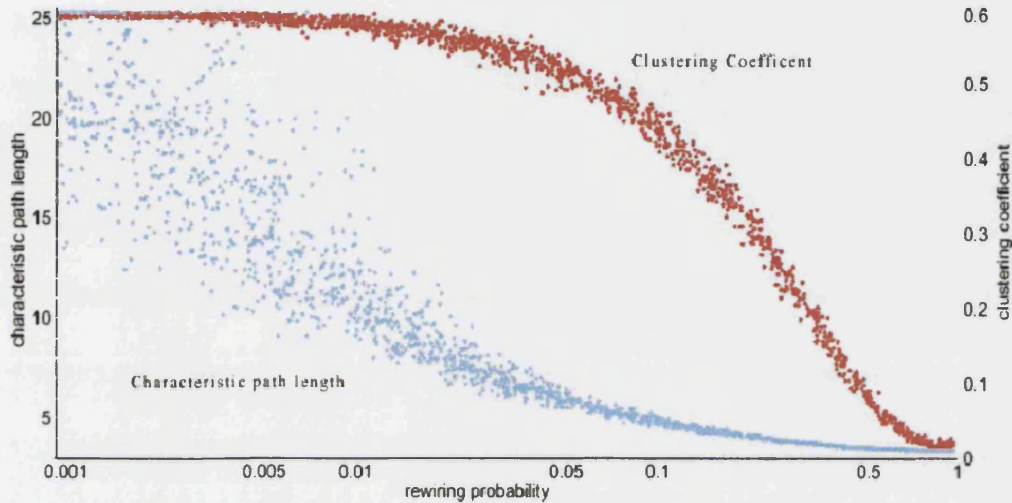


Note: Results are from 2,000 random graphs, each with 300 vertices and 900 edges

*(Hayes 2000)*

most, a linear effect on the cliquishness. There are some other technical restrictions on the conditions for this to occur, but none that ought to exclude the vast majority of NFPs and certainly not the ones that are going to examine. This basic formulation has been taken on and reinforced by work from, amongst other such rigorous operators, statistical physicists (Strogatz 2001). Marchiori and Latora (2000) developed a method that considers the two elements of the global and local levels in small worlds as efficiency measures that apply to metrical networks (with valued links) as well as topological (one/ zero links) networks. They conceive the networks in terms of information propagation (playing off transmission against fault tolerance) they also introduce the notion that the introduction of short cuts is not without cost, all of which are concepts that can be useful in political applications. It is this conception that we will use in Chapter 9 when we test our hypothesis.

What we have in a small-world is a relatively cliquish network where, surprisingly,

anyone in the network can be reached through relatively few steps. Some of the implications of this were touched on above, but clearly this can be taken much further. In other fields that imply obvious analogies to NFPs we see dramatic implications. Take, for example, the spreading of an infectious disease; it is shown that the threshold of 'infectiousness' needed to infect the entire population and the time for global infection both reduce significantly when path lengths are short. These diseases spread, therefore, much more effectively in the small world scenario, but the key point is the small number of short cuts required to produce a small-world and the difficulty for individuals to notice this occurring compared to, say, an obvious move away from a 'localised' structure. This also implicitly cascades down to a hypothesis that even isolated communities are affected by globalisation even when contacts (short-cuts) to the rest of the world are very few and consequently that the world could be as 'globalised' when only a few monks and soldiers were travelling as it is now when we can have a random connection to anyone. The corollary of this is that, as popular commentaries suggest, local communication has suffered at the expense of these massive random connections across the globe that have barely improved global communication. On a less grand level, it can also be shown that in a multi-player prisoners' dilemma and in the physics of coupled phase oscillators the effects of a small-world structure of relations give surprising results compared to expectations when studies are based only on the random and regular graphs (W+S).

## Hypothesis 4: centrality

Centrality is a fairly loose term even in formal network analysis. There are several different kinds of centrality and there are many variables that can be hypothesised as being indicators of influence on policy shaping or of having power within the policy

process. Hypothesis 4 will consist of a set of predictions about the centrality relation to

actor attributes and test using a range of the available centrality measures. One of the

things that emerges from the case studies in Chapters 2 and 3 that lends itself well to

testing with networks, even though it would be difficult to discover with networks, is

whether different phases of the policy process, which were discovered in both cases, are

reflected in the centrality of the actors. We can identify which actors were involved in

the first phase, the second phase, or both and label the nodes accordingly. We can then

test to see whether any one of these groups is favoured in terms of centrality in the

network. This can show us if network centrality is more common in different policy

process phases and can help us to understand both more about the meaning of centrality

and, using some of the basic understandings of communication in networks, will allow

us to make deductions n the other direction about the nature of the policy process in the

different phases. Furthermore, as the different phases in the French case study were

concerned with different governments, it may help us to understand something of the

differing relationship patterns under these two regimes. The other two attributes that will

be tested against centrality are more traditional indicators of power and influence. The

first of these is position in the hierarchy we will call this grade. This is known in the UK

Civil Service as rank, a quasi-military concept, in many organisations it is mistakenly

called seniority – a concept to which it is often related. Seniority is in fact purely

concerned with length of service and not position in the hierarchy, this attribute, is in fact

more closely related to the third element of hypothesis 4 which tests whether centrality is

correlated with age. The longer someone has been around, the more opportunity they

should have had to obtain respect, demonstrate reduced risk in dealing with a known

quantity, gain experience and to have either built good contacts or a reputation that

enhances the building of strong contacts.

# VIII. Development and discussion of mapping and data

## Applying the six base assumptions

In this section, for the first time, I am going to define how the study of NFPs will be approached in this thesis. The previous work has been an attempt to provide a general framework that can be seen as applying to all NFP analyses giving individual researchers a common set of reference points. I wish to develop a system consistent with this general framework that creates a data representation of an NFP that can be analysed for the purposes of testing the hypotheses outlined in the previous chapter.

## Nodes

The first element in the base assumptions that we need to consider is the set of nodes which should be a finite set of actors rather than a potentially infinite set. In our case the set is restricted through the question: 'what constitutes the formation of public policy?' One answer to this was given in the 'black box' section of this chapter when it was stated that the output of the policy process was assumed to be a 'tangible policy statement'. In general this sits well with the literature, where the actors involved in the formation of public policy encompass all stages up to the entry onto the statute books (or the equivalent dependent on territory and type of legislation), usually excluded, however, are those, such as parliamentary draughtsmen or translators, who would be wrongly considered as mere tools with no interest in the outcome of the policy formulation. Also excluded are those who have a hand in the formulation of public policy after it has found its way onto the statute books. These foot soldiers of public policy formation include firstly, the very same civil servants who advised on the legislation but in a different role

as they draft guidance notes on implementation. Apart from those who have already had a hand in the policy there are also, for example, the local authority clerks who calculate housing benefit entitlements, police officers detaining cannabis users and hospital consultants supervising junior doctors; they will eventually see a trickle down of high minded policy changes into their everyday life and will, perhaps, implement them with military efficiency and unquestioning obedience.

The decision to include actors involved in the production of a 'tangible policy statement' means that the basic membership condition for being considered within the NFP is that there must be some effect of the actor on the formation of policy. This seems to imply that a potential actor who has been on the a department's mailing list for five years and duly turns up to every consultation only to sit silently at the back of the room and is not within the NFP. Also excluded is the very noisy, but incredibly radical, action group who are dutifully copied in on every public document. They exist only to condemn the current policy and as a matter of principal will not engage in policy formation and so are excluded. This is not to say that they will never be included: NFPs are dynamic and if others who do influence policy shift the ground to a position where the radical group is prepared to engage then they would be brought into the analysis.

## Structural limitations

Marin and Mayntz (1991) discuss the numbers of actors possible in policy networks. They imply that there is a logical definitional constraint that

> only a *few* or *not too many* actors can actually *inter-act* with each other – instead of either simply re-acting more or less uniformly to the same (political or price) market signals or of being organized into more or less uniform action within the same bureaucratic hierarchy.

*(Marin and Mayntz 1991: 17) (original italics)*

If we set a boundary definition on the strength of a relation and classify this as strong

enough to be classed 'interaction', and therefore within the network (see below on the link boundary), then because actors are limited in the number of people they can interact with at a level that falls within our boundary we have necessarily limited the number of actors. This would appear to be a much more robust and less arbitrary way of defining the boundaries of the network than setting numerical limits on the number of actors. Unfortunately, the method is not completely foolproof as the geometry of the network could conceivably imply a network that encompassed the whole world. The key is to find a relationship definition that is directly relevant to the policy area, and founded upon the likelihood of meme replication taking place; a boundary condition ought to be based upon a consideration such as 'how often is the policy discussed with the intention of drawing specific conclusions' as opposed to say 'how often is the policy discussed'. This should, in theory, limit the number of actors in a non-arbitrary way when a boundary is set on the strength of the relationship measured. It is also possible from this idea to achieve a network of 'manageable' size where those 'in' and those 'out' are included on the strength of relationship to ensure that the most important actors are included.

With such a boundary definition a sensible policy would be to over-sample. This would ensure that a secondary 'cut' could be made on the more detailed information available from the interviews of the actors. Another benefit would be that the relative network sizes resulting from set boundary strengths and the relative boundary strengths associated with setting the network size could in itself be a revealing comparison between networks. This aspect will be covered in more detail below and we will see that these considerations are clearly reflected both in the concept of snowball sampling and in the technique used to reduce the network size.

## Actors

Elements 3,4 and 5 of the base set refer to actors:

> Element 3: the human individual is the node (called the actor)
> Element 4: the node is indivisible
> Element 5: actors have no links to themselves ($\Lambda_{ii}=0$ for all $i$)

Thinking about different kinds of actors in an NFP will influence the methods we may adopt for analysing NFPs. There are many justifications for adopting the assumptions above which rely to a certain extent on institutional factors, however, this is not to say that the NFP analysis is institution reliant; every institution set (state, region, international field, etc.) could offer a different justification, each of which requires understanding of the institutions. However, the NFP method itself, having been justified from any one of these perspectives, can be applied independently of these factors.

Traditionally the starting point for looking at the actions of civil servants is the Weberian analysis. Somewhere, usually unstated, this analysis is holding sway behind the idea that we must look at the organisational entity in order to analyse the dynamics in NFPs. The substitution of one bureaucrat for another, each representing only the desk, means that we can drop individuals out of our reckoning. This 'ideal type' as Weber described it is of course known to be untrue, but can be found as an enduring image both as an approximation of reality and as a vision of the perfect state. Richardson and Jordan (1979) observe that from an institutional perspective the policy formation process within government is characterised by departments competing for limited resources. This competition could be merely for monetary resources or for the equally scarce resources of glory and kudos for developing and leading a policy strand. What is neglected in this analysis is that what may be true of a department is not true of the actors that make up the department. The actors within these departments are likely to work in multi-faceted

networks with each other, as their individual interests are much more complex than those of the department and they will work closely with some colleagues from one department but keep others at arm's length. Civil servants also have sometimes very distantly – sometimes closely – the interest of competing for resources for their department. However, at a more immediate level it is in their interest to please either their minister or their line manager and these can quite possibly be two very different directions. Another extra-departmental incentive is the 'easy life': this need not be the typical criticism aimed at tea-drinking shirkers, but rather an idea that civil servants generally spend a lifetime in the Whitehall village and it is far preferable to develop respect and friendships between departmental colleagues than to compete viciously with them. Of course, there is a greasy pole of success for civil servants and sometimes it pays to make enemies as well as friends. However, even this is unclear on its effect in an NFP; as Michael Corleone says in The Godfather II 'My father taught me many things ... keep your friends close, but your enemies closer still.'[178]

On a global level, civil servants will wish to appear competent in reaching sustainable policy conclusions and, importantly, they themselves have to deal with much of the resulting work from the policy that is finally decided upon. With this in mind they are unlikely to blindly go along with the intrinsic departmental/ministerial interest in getting as much resource as possible as if this direction results in an unwieldy or 'risky' policy it is the civil servants that will not only have to deal with it and brief the minister to deal with it, but will more likely than not be criticised for having allowed the situation to come to pass. Such criticism, in fact, could well come from the ministerial team or 'top of the office' that was pushing for the policy in the first place. The tight rope walk of

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[178] Pointed out by Keith Dowding. I suspect that it was Machiavelli that first said this although many original sources are claimed.

civil servant policy advisers and analysts is often a thankless performance. It should also be remembered that it is the civil servant's primary function is not only to advise, but also to warn and this has negative connotations for many ministers. If a civil servant is to discharge this function without alienating himself from his political masters then his strategic, and very personal, alliances with all kinds of actors both within and outside the Government circle must be used to the full. Although a civil servant's strategy may be to act in the Departmental interest and warn a minister against a certain course of action, the strategy may be far more complex and involve a wide range of contacts within the NFP. All of these factors, for which, as explained above, similar arguments can be found in other countries and for other types of actors, support the idea that it is indeed individuals that are important in the policy process and lead us to comply with element 3 of the base set of assumptions. Note that only one argument is needed to support the use of individuals while a counter argument would need to encompass every type of actor, not just civil servants.

On the question of the indivisibility of nodes it is a consideration of ministers that leads us to support the assumption. Ministers, like the civil service, have a bureaucratic role and the same references to Weber's analysis (importance of role, unimportance of individuals) must be addressed. Ministers also have their political role – this is much less clearly defined than the 'bureau' role and unarguably has a large 'personal' element. This role though is still firmly within their ministerial scope in contrast to their role as an MP or party executive committee member –although it is conceivable that even these roles need to be taken into account when enumerating the links in an NFP. There may be an argument for looking separately at these two roles, along with their associated contacts and networks, but there are also good reasons for complying, as we will, with element 4

of the base set of assumption, which states that the individual actor is indivisible within the NFP. As such, it is the combination of these roles, the whole union of relations, which forms the unit of analysis. We must consider how a minister manages her own contacts and how she can operate (especially vis-à-vis her own civil servants) simultaneously on these two levels. We would, a priori, expect the Minster to be centrally placed and strongly implicated in the NFP from the political end and still central, although possibly not as strongly implicated, in the bureaucratic level.

The final element of the base assumptions is about actors not having links to themselves, which following the discussion in Chapter 5 follows from the above.

## Links

Element 2 of the base assumptions requires us to define the type of link and a boundary definition. We already touched on this issue when discussing the boundary definition for actors as in our analysis the two are intrinsically linked. The link used in the NFP is primarily based on the fact that the policy would have been changed in some way directly or indirectly by the fact that the relationship existed. The link strength is not related to the number of times that contact was made, because certain people have limited time to deal with others and so much more content is packed into fewer encounters. This is what is trying to be reflected in the impressionistic 'impact' measures that are used. The key question addressed is the shaping of the policy. Once again, as with the boundary condition for actors, the link type is over specified to allow reduction at later stages of the analysis. Relations are to be valued on a scale of 1 to 5, thus allowing reduction in two ways: only keeping the stronger rated relations and, if necessary, reducing from this metric version to a binary 'connected or not connected'

version. The types of relations covered are also over specified covering three different types of contact that impact on policy but also asking for an overall figure. The relation types are described in the data schedule.

## Data collection and quality

Given a clearly defined set of assumptions about the form that the policy network takes there needs to be an equally strong emphasis put on the quality of the data that is used to construct the NFP representation. In this research it was clear from the start that given the undocumented and dispersed nature of the policy processes under consideration there could be little use made of "neutral" (or any other) experts to build the data. Instead it was decided that, despite potential 'self serving' reporting problems, the members of the network would be used as the main source of information. There were some exceptions as described below where some expert and media sources were used for identification of network members and where data quality was verified by asking members of the network to report some third party information. Data quality was also assured by the checking of unlikely reciprocation or non-reciprocation of links. Furthermore in building the networks it became clear that due to the reduction process the core data that remained was of higher quality and was more verifiable (because it was for central actors on relations that were known and verified by others) and weaker peripheral data that was more difficult to confirm was eliminated from the final representations anyway because of its peripherality. The sections below describe how the sample was constructed, the interviewing process and how the mass of data was made into a form that could be analysed. This mass of data was never intended to be the NFP that would be analysed using the network techniques and the reduction process that

results in the final NFP is detailed under 'Interim data quality'. It should be noted that no imputation or estimation was involved in reducing the network; this work was all done only on collected raw data and as such is entirely reproducible using the rules below given the original collected data. To confirm quality of the reduced network a new technique was used to compare the resulting network to the network which might be expected from a 'pure snowball' sample.

The final step in creating the NFP is where there are arguable data issues: there is a step of adding in certain actors who were previously removed. This process is fully explained in 'Creating a definitive NFP'. The process does have a weakness in that it relies on imputing links for certain actors based on reports of relations rather than on collected numerical data. The data quality of actors involved is nevertheless replicable and clearly explained. Some slightly less replicable work is done after the actor set is finalised. Some missing links are imputed between actors. The minimal effect of this can be seen by comparing actors labeled 1 to 3 in Figures 8.3 and 8.7 and their links with the final NFP representation (including re-added actors) in Figures 8.8 and 8.9.

## The sampling method

Sampling techniques are not straightforward for networks. For this research in particular there was a strict limit on the resources available for the research and those resources had to take into account the fact that the interviews that collected the data for the network also had to serve as interviews for the case study element. The sampling technique that was used was a hybrid of an informal version of a probability proportional to size (PPS) sampling with factors which adjusted this sampling for the costs of

interviewing (in terms of time taken to secure interviews) and in terms of benefits for the case study element of the research.

The method of sampling used is based on a technique (PPS) for when there is already some knowledge of the importance of units in the estimated population for their contribution to the parameters that are to be estimated. For example when producing price indices at national level, which requires prices of output to be weighted by the volume of that output, PPS is often used to ensure that the largest coverage is obtained by the smallest sample (i.e. the survey will target the firms that have the highest output as they will contribute large parts of the sample of prices).[179] This method of sampling has clear application in our situation where we already have some knowledge, although imperfect and proxy, of the final parameters that we are interested in (mainly if the unit is in the population or not). One key parameter in the network is that of the known importance, pre-interview, of each actor: a high proportion of these actors in the sample has positive repercussions for the quality of the resulting network representation.

In both the UK and the French cases a first interviewee was chosen that had been judged as having a central position and this person was asked to produce a list of all the potential actors that they considered could be within the population. This list was then supplemented by knowledge gained from other written sources such as newspaper articles, official publications and the websites of institutions concerned.[180] Using knowledge about the institutional factors within the NFP the list was ordered into priority on the understanding that peripheral actors were not as likely to end up in the final version of the NFP. They were also likely to be less useful in terms of providing the details of links necessary to construct the 'snowball' sample as their links were as likely

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[179] See for example Eurostat (1998) and Norrman (2004).

[180] Full lists can be found in Appendix 6.

to lead away from the central area as they were to link towards it. As the interviewing continued this priority list was reassessed in terms of the number of nominations that each actor received from those already interviewed. This combination of external institutional information and ongoing network information created an evolving sampling frame that corresponds to the sampling method required in that those highest up the list were pursued more intently (effectively attempting, but failing to get, a 100% coverage) than those lower down the list. These sampling factors were always modified by the cost-benefit issues and by the need to obtain interviews with certain actors for the case study purposes. This is why, for example, there was a higher sample of academics in the French case than might be expected. There are effects of such trade-offs on the final network data quality which form part of the data quality assessment below. In relation to the sampling and the evolving sampling frame the section below on the 'eleventh hour data collection and verification' is also relevant. Note that the prioritisation in sampling does not imply anything for the analysis of the network or the actors in the network. There is no knock on to the analytical results from this sampling method that relies on impressionistic 'reputation' or 'importance'; other than any critiques that can be raised of it as a sampling policy. Such critiques were considered and rejected – a decision that is upheld by the results where it will be seen that several strongly pursued interviewees were eliminated to create the final NFP and unprioritised non-interviewees can end up very centrally placed.

## The data schedule

The interview data is of two types: core data (for coding) and other data. There are also non-interview data; biographical details and contextual information available for

use. The information that on the relationships was on the 'content' of relations and the relational 'forms' (Knoke and Kuklinski 1982: 15). For this data collection there are three main concerns 1) the hypotheses to be addressed and how they will be tested and 2) the need for extra data for checking purposes. The relational content, due to its almost infinite potential, has to be decided beforehand and depends on the use that will be made of the data and the type of analysis to follow. Given that the thesis will use relatively simple tests the relational content was fairly general covering communication links with two kinds of additional information on how the communication is carried out (face to face, telephone, email) and on the purpose of the communication (informational, decision taking). The link types shown on the sheet were simple descriptions, but the interviewee was given more detailed explanation to be given about exactly what the link types are. The form of relations was defined by an intensity scale from 1-5.

In addition to the questions about the interviewee's own contacts there were also questions to establish the interviewee's perception about other members of the policy network for validation purposes, i.e. a third party contacts table. The questions were identical to those concerning the interviewee's own relations. There was also an unstructured section at the end of the interview where the additional data that puts the network structure into context were asked.[181]

## Preparation and coding

The data is stored in Microsoft Access in a relational database format. This allows for the most flexibility in analysis, exporting of data and report building in all stages of the work. The database structure has four central tables: an 'actors' table (in effect an index table, but also containing basic information and interview completion tracking details), a

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[181] See Appendix 7 for the interview sheet , Appendix 8 for the third party form and Appendix 1 for a sample interview.

table containing the biographical details ('Interviewee Biography') and the key 'links' table. This corresponds to the logical structure of NFPs as outlined in the theoretical section of the thesis. The database was set up in advance of the first interview and as the interviews progressed the data was entered allowing checking to be carried out during the process (see Appendix 9 – 'data for one interviewee'). Reports have also been created at various points during the process to examine how the network is developing, producing such outputs as the Appendix 10 – 'diagram showing the network after 9 interviews'. With the data entered in whole or part, many such queries can be created within a few minutes to produce ad-hoc analyses.

The core interview data was coded directly from the interview sheets into a tailor-made data entry form of Microsoft Access that allows a simple one paged entry of the data as it is seen directly on the interview sheet which then, once entered, is transferred into the 'links table' in Access as one data element per line in the form shown in Table 8.1.

*Table 8.1: an extract from the database links table*

| links | | | | | |
|---|---|---|---|---|---|
| from | to | link value | reported by | type of contact | link identity |
| 1001 | 1002 | 4 | 1001 | a | (ii)I |
| 1001 | 1002 | 2 | 1001 | a | (ii)II |
| 1001 | 1002 | 5 | 1001 | a | (ii)III |
| 1001 | 1002 | 5 | 1001 | a | i |
| 1001 | 1002 | 1 | 1001 | b | (ii)I |
| 1001 | 1002 | 0 | 1001 | b | (ii)II |
| 1001 | 1002 | 2 | 1001 | b | (ii)III |
| 1001 | 1002 | 2 | 1001 | b | i |

The most important output produced is the links table used for the formal analysis; this is like Table 8.1 but uses a suitable filter to select only the required link types. The result is a table that can simply be copied into Microsoft Excel or a text editor for input to

further analysis. However there are many other secondary analyses and reports that Access is able to do directly. The links table could, say, be filtered for a specific actor to produce that actors set of neighbours, or the characteristics table could be sorted by 'functional role' to produce an exhaustive list of actors, grouped by role. Access also allows easy cross-tabulations which eases the work during the data collection and analysis phases.

## Eleventh hour data collection and verification

In this project, as in all network studies that do not have a fully defined universe of named actors at the outset, the data collection period could have gone on almost indefinitely. The length of that almost indefinite period cannot be estimated as the population is unknown and the sample continues to evolve by the combination described above of the 'snowball' method and the sampling with differing weights. A time limit has to be imposed on the data collection phase of the research and roughly four weeks before this absolute deadline for data collection an assessment was made of how complete the network appeared to be and which actors should be approached in the eleventh hour to improve the quality of the network data. With a considerable amount of data already in it was decided that, while risking methodological purity, it was a practically sound idea to use the collected data to carry out a dry run of the creation of an NFP that could be used for analysis and to examine, at each stage of an appropriate network reduction process, which actors were eliminated from the network and which parts of the network seemed to lack acceptable levels of data. In fact, to spoil the excitement of the story, it turned out at the end of this verification process that the networks produced were acceptably complete according to the tests that were used and

so this section of the thesis – originally intended as a dry-run for interim assessment – actually produced the final NFPs that were used in the hypothesis testing. The data that were used to create these versions of the NFPs were only those collected from interviews about the interviewees own contacts: no third-party information was included and no imputation was used. This additional information was brought in at the re-additions stage described below.

## Diversion on snowballs

There is no perfect place to put the following discussion on snowball sampling despite the fact that it is absolutely essential; if it is introduced during the sampling section it seems to forestall too many other aspects, data that should have appeared later have to be pulled back to illustrate calculations and by the time the subtler points of snowballs are important they may be forgotten. However, when placed here this section can seem like a diversion from the main subject matter. Having the information at this later point does, however, allow a full understanding of the points about data quality and completeness of actor representation that follow.

Earlier, when discussing the boundary condition, we covered both the principle of requiring interaction rather than reaction and the essential condition, part of our basic assumptions, that actors must affect the policy output if they are to be considered part of the NFP. These key points will now be drawn together with the mathematical aspects of snowball sampling. These mathematical aspects are relatively straightforward to follow when they are explained in context. Unfortunately I was unable to find any straightforward discussions of snowball sampling that addressed the mathematical issues that I was concerned with[182] within a context that was both appropriate and adequately

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[182] Mostly the reduction in the growth velocity of the snowball as described below.

comprehensible and so I was forced to resort to working from first principles. The

method that I used to do this was to carry out a basic simulation of a snowball sampling

process, to construct the relevant statistics from this simulation and then to attempt to

model the statistics by fitting a curve. When this was done I was able to make the

theoretical links that became obvious when seeing the process as a whole. It must be

emphasised at this point that this thesis is not intended to be breaking new ground in

network mathematics and the mathematics that follows is used on an 'as is' basis insofar

as it presents useful methods for estimating parameters that we need to know about the

networks we are studying. On this basis I am satisfied with the work, however due to the

lack of peer reviewed work in this area I am unable to present the *detail* of the

calculations as fully accurate. Furthermore, as someone with formal training in

mathematics I know for certain that the method I have used is not elegant. Having said

this, I made double-checks on the range of values that might be expected, using simple

'linear change' or 'no change' methodologies and the techniques described in Frank and

Snijders (1994) and they fall comfortably in the same space of results.[183] While the

verification of the calculations falls outside the work of this thesis I am currently

producing a version of the work for dissemination to assess its validity. To summarise,

the inclusion of this mathematical derivation is important in practical terms to the thesis

and the results are demonstrably usable, but the proofs and elegance of theory are outside

the scope of the present work.

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[183] Frank and Snijders (1994) is a statistical paper that I suspect could, with a considerable amount of work, be made to yield up the useful application that I have produced here from first principles. I make no apologies that I used the paper merely to confirm my results were acceptable and did not spend longer deciphering it. I hope that the advantages in working from first principles are obvious in pedagogical terms.

## Table 8.2: Snowball growth velocity simulation

| ln(nom)=m.int+c | | | | | | |
|---|---|---|---|---|---|---|
| nom=exp(c).e^-m.int | | parameters | nom | exp(c) | 6,18614 | |
| | | | ln(nom) | m | -0,0747 | |
| | | | | c | 1,82231 | |
| av nom | 6 | | | | | |
| netsize | 80 | | | | | |

asymptote check 79,72

formula:
r*COMBIN(remaining;r)*COMBIN(tot already selected;avnom-r)/COMBIN(netsize;avnom)

=r.p(selecting r already selected actors when choosing avnom without replacement)

| repeats | intrv | nom | total | remain | ln(remain) | ln(nom) | r=1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0 | 80 | 4,38 | | | | | | | |
| 0,0 | 1 | 6,0 | 6,0 | 74 | 4,30 | 1,79 | | | | | | 6 |
| 0,5 | 2 | 5,6 | 11,6 | 68 | 4,23 | 1,71 | 1E-06 | 3E-04 | 0,013 | 0,23 | 1,608 | 3,699 |
| 1,2 | 3 | 4,8 | 16,3 | 64 | 4,15 | 1,56 | 1E-04 | 0,005 | 0,083 | 0,596 | 1,908 | 2,185 |
| 1,6 | 4 | 4,4 | 20,8 | 59 | 4,08 | 1,49 | 9E-04 | 0,024 | 0,222 | 0,951 | 1,871 | 1,357 |
| 1,9 | 5 | 4,1 | 24,9 | 55 | 4,01 | 1,42 | 0,003 | 0,055 | 0,37 | 1,151 | 1,666 | 0,9 |
| 2,1 | 6 | 3,9 | 28,8 | 51 | 3,94 | 1,35 | 0,008 | 0,105 | 0,53 | 1,253 | 1,389 | 0,579 |
| 2,4 | 7 | 3,6 | 32,3 | 48 | 3,86 | 1,28 | 0,017 | 0,174 | 0,681 | 1,257 | 1,094 | 0,36 |
| 2,7 | 8 | 3,3 | 35,6 | 44 | 3,79 | 1,19 | 0,031 | 0,259 | 0,803 | 1,178 | 0,817 | 0,214 |
| 2,9 | 9 | 3,1 | 38,7 | 41 | 3,72 | 1,13 | 0,048 | 0,33 | 0,865 | 1,075 | 0,632 | 0,141 |
| 3,1 | 10 | 2,9 | 41,6 | 38 | 3,65 | 1,06 | 0,068 | 0,403 | 0,898 | 0,948 | 0,474 | 0,09 |
| 3,3 | 11 | 2,7 | 44,3 | 36 | 3,58 | 0,98 | 0,095 | 0,474 | 0,898 | 0,806 | 0,342 | 0,055 |
| 3,5 | 12 | 2,5 | 46,7 | 33 | 3,50 | 0,90 | 0,126 | 0,538 | 0,865 | 0,659 | 0,238 | 0,032 |
| 3,7 | 13 | 2,3 | 49,1 | 31 | 3,43 | 0,84 | 0,151 | 0,573 | 0,827 | 0,564 | 0,182 | 0,022 |
| 3,9 | 14 | 2,1 | 51,2 | 29 | 3,36 | 0,75 | 0,19 | 0,613 | 0,747 | 0,429 | 0,116 | 0,012 |
| 4,0 | 15 | 2,0 | 53,1 | 27 | 3,29 | 0,68 | 0,219 | 0,629 | 0,681 | 0,347 | 0,083 | 0,008 |
| 4,2 | 16 | 1,8 | 55,0 | 25 | 3,22 | 0,60 | 0,248 | 0,633 | 0,608 | 0,274 | 0,058 | 0,005 |
| 4,2 | 17 | 1,8 | 56,7 | 23 | 3,15 | 0,56 | 0,263 | 0,631 | 0,57 | 0,241 | 0,048 | 0,004 |
| 4,4 | 18 | 1,6 | 58,3 | 22 | 3,08 | 0,48 | 0,292 | 0,618 | 0,49 | 0,182 | 0,031 | 0,002 |
| 4,5 | 19 | 1,5 | 59,8 | 20 | 3,00 | 0,39 | 0,32 | 0,593 | 0,41 | 0,132 | 0,02 | 0,001 |
| 4,6 | 20 | 1,4 | 61,2 | 19 | 2,93 | 0,34 | 0,333 | 0,576 | 0,37 | 0,11 | 0,015 | 8E-04 |
| 4,7 | 21 | 1,3 | 62,5 | 18 | 2,86 | 0,23 | 0,356 | 0,531 | 0,293 | 0,075 | 0,009 | 4E-04 |
| 4,8 | 22 | 1,2 | 63,7 | 16 | 2,79 | 0,18 | 0,366 | 0,505 | 0,257 | 0,06 | 0,006 | 2E-04 |
| 4,9 | 23 | 1,1 | 64,8 | 15 | 2,72 | 0,12 | 0,374 | 0,476 | 0,222 | 0,047 | 0,005 | 2E-04 |
| 4,9 | 24 | 1,1 | 65,9 | 14 | 2,65 | 0,05 | 0,381 | 0,444 | 0,189 | 0,037 | 0,003 | 1E-04 |
| 5,0 | 25 | 1,0 | 66,8 | 13 | 2,58 | -0,02 | 0,385 | 0,41 | 0,159 | 0,028 | 0,002 | 6E-05 |
| 5,1 | 26 | 0,9 | 67,8 | 12 | 2,51 | -0,09 | 0,387 | 0,374 | 0,131 | 0,02 | 0,001 | 3E-05 |
| 5,2 | 27 | 0,8 | 68,6 | 11 | 2,43 | -0,17 | 0,386 | 0,337 | 0,105 | 0,015 | 9E-04 | 2E-05 |
| 5,2 | 28 | 0,8 | 69,4 | 11 | 2,36 | -0,26 | 0,382 | 0,298 | 0,083 | 0,01 | 5E-04 | 9E-06 |
| 5,3 | 29 | 0,7 | 70,1 | 10 | 2,30 | -0,35 | 0,374 | 0,259 | 0,063 | 0,007 | 3E-04 | 4E-06 |
| 5,4 | 30 | 0,6 | 70,7 | 9 | 2,23 | -0,46 | 0,362 | 0,22 | 0,046 | 0,004 | 1E-04 | 2E-06 |
| 5,4 | 31 | 0,6 | 71,3 | 9 | 2,16 | -0,46 | 0,362 | 0,22 | 0,046 | 0,004 | 1E-04 | 2E-06 |
| 5,4 | 32 | 0,6 | 71,9 | 8 | 2,09 | -0,58 | 0,347 | 0,181 | 0,032 | 0,002 | 7E-05 | 6E-07 |
| 5,4 | 33 | 0,6 | 72,5 | 8 | 2,02 | -0,58 | 0,347 | 0,181 | 0,032 | 0,002 | 7E-05 | 6E-07 |
| 5,5 | 34 | 0,5 | 73,0 | 7 | 1,95 | -0,71 | 0,326 | 0,144 | 0,021 | 0,001 | 3E-05 | 1E-07 |
| 5,5 | 35 | 0,5 | 73,4 | 7 | 1,88 | -0,71 | 0,326 | 0,144 | 0,021 | 0,001 | 3E-05 | 1E-07 |
| 5,6 | 36 | 0,4 | 73,9 | 6 | 1,81 | -0,86 | 0,3 | 0,109 | 0,012 | 5E-04 | 7E-06 | 2E-08 |
| 5,6 | 37 | 0,4 | 74,3 | 6 | 1,74 | -0,86 | 0,3 | 0,109 | 0,012 | 5E-04 | 7E-06 | |
| 5,6 | 38 | 0,4 | 74,6 | 5 | 1,68 | -1,05 | 0,268 | 0,077 | 0,006 | 2E-04 | 1E-06 | |
| 5,6 | 39 | 0,4 | 75,0 | 5 | 1,61 | -1,05 | 0,268 | 0,077 | 0,006 | 2E-04 | 1E-06 | |
| 5,6 | 40 | 0,4 | 75,3 | 5 | 1,54 | -1,05 | 0,268 | 0,077 | 0,006 | 2E-04 | | |
| 5,7 | 41 | 0,3 | 75,6 | 4 | 1,48 | -1,27 | 0,23 | 0,049 | 0,003 | 4E-05 | | |
| 5,7 | 42 | 0,3 | 75,9 | 4 | 1,41 | -1,27 | 0,23 | 0,049 | 0,003 | 4E-05 | | |
| 5,7 | 43 | 0,3 | 76,2 | 4 | 1,34 | -1,27 | 0,23 | 0,049 | 0,003 | | | |
| 5,8 | 44 | 0,2 | 76,4 | 4 | 1,28 | -1,56 | 0,184 | 0,026 | 7E-04 | | | |
| 5,8 | 45 | 0,2 | 76,6 | 3 | 1,22 | -1,56 | 0,184 | 0,026 | 7E-04 | | | |
| 5,8 | 46 | 0,2 | 76,8 | 3 | 1,16 | -1,56 | 0,184 | 0,026 | | | | |
| 5,8 | 47 | 0,2 | 77,0 | 3 | 1,09 | -1,56 | 0,184 | 0,026 | | | | |
| 5,9 | 48 | 0,1 | 77,2 | 3 | 1,04 | -1,96 | 0,131 | 0,009 | | | | |
| 5,9 | 49 | 0,1 | 77,3 | 3 | 0,99 | -1,96 | 0,131 | 0,009 | | | | |
| 5,9 | 50 | 0,1 | 77,4 | 3 | 0,94 | -1,96 | 0,131 | 0,009 | | | | |
| 5,9 | 51 | 0,1 | 77,6 | 2 | 0,88 | -2,03 | 0,131 | | | | | |
| 5,9 | 52 | 0,1 | 77,7 | 2 | 0,83 | -2,03 | 0,131 | | | | | |
| 5,9 | 53 | 0,1 | 77,8 | 2 | 0,77 | -2,03 | 0,131 | | | | | |
| 5,9 | 54 | 0,1 | 78,0 | 2 | 0,71 | -2,03 | 0,131 | | | | | |
| 5,9 | 55 | 0,1 | 78,1 | 2 | 0,64 | -2,03 | 0,131 | | | | | |
| 5,9 | 56 | 0,1 | 78,2 | 2 | 0,60 | -2,66 | 0,07 | | | | | |
| 5,9 | 57 | 0,1 | 78,2 | 2 | 0,56 | -2,66 | 0,07 | | | | | |
| 5,9 | 58 | 0,1 | 78,3 | 2 | 0,52 | -2,66 | 0,07 | | | | | |
| 5,9 | 59 | 0,1 | 78,4 | 2 | 0,48 | -2,66 | 0,07 | | | | | |
| 5,9 | 60 | 0,1 | 78,5 | 2 | 0,44 | -2,66 | 0,07 | | | | | |
| 5,9 | 61 | 0,1 | 78,5 | 1 | 0,39 | -2,66 | 0,07 | | | | | |
| 5,9 | 62 | 0,1 | 78,6 | 1 | 0,34 | -2,66 | 0,07 | | | | | |
| 5,9 | 63 | 0,1 | 78,7 | 1 | 0,29 | -2,66 | 0,07 | | | | | |
| 5,9 | 64 | 0,1 | 78,7 | 1 | 0,23 | -2,66 | 0,07 | | | | | |
| 5,9 | 65 | 0,1 | 78,8 | 1 | 0,18 | -2,66 | 0,07 | | | | | |
| 5,9 | 66 | 0,1 | 78,9 | 1 | 0,12 | -2,66 | 0,07 | | | | | |
| 5,9 | 67 | 0,1 | 78,9 | 1 | 0,05 | -2,66 | 0,07 | | | | | |
| 5,9 | 68 | 0,1 | 79,0 | 1 | | | | | | | | |

Imagine a snowball sample situation where each actor nominates their contacts. We set parameters, for the purposes of simulating the situation: the network is 80 (*netsize*) actors in total, each actor has the same number of contacts, which is therefore the mean number – this will be set at six (*avnom=6*). The process being simulated is that each actor is interviewed in sequentially at random. Interview number one (*intrv=1*) is easy to model: the actor names six contacts – none of whom are already listed in the network. She has nominated six she has revealed six new population members (*nom=6*) making a cumulative total of six revealed actors (*total=6*). The total number of actors remaining to be uncovered is now 74.

*netsize - total = remain = 74*

The second interview is slightly more complicated in terms of calculating the expected numbers of newly revealed actors. The problem is analogous to the classic statistical problem of drawing balls from a bag without replacement. This is because the second actor being interviewed has no knowledge of who has already been nominated and therefore revealed (let us say 'green' actors) and who has not (say 'red' actors). Therefore, although the interviewee is unaware, there is a 'bag of actors' with 6 green and 74 red from which she is going to nominate (i.e. draw without replacement, as once a given interviewee has nominated one contact they are not allowed to name them again) 6 contacts at random. This 'at random' is from the point of view of the experiment as far as the 'bag' and 'colours' are concerned, clearly not from the point of view of the actor being interviewed. We know that the interviewee will nominate six contacts so she can draw anything between zero 'red' actors and six 'red' actors, let us call this variable $x$. The expected number (or in layman's terms 'average number') of red actors will be given by the sum of the probabilities for drawing $x$ of them multiplied by $x$:

$$\mathrm{E}(reds\,drawn) = x \cdot \mathrm{P}(drawing\,x\,reds)$$

The solution to the problem uses the binomial function to calculate the probability for each of their $x$ values according to the formula:

$$\mathrm{P}(x) = \frac{{}^{remain}\mathrm{C}_x \; {}^{total}\mathrm{C}_{avnom-x}}{{}^{netsize}\mathrm{C}_{avnom}} \text{ where } {}^{n}\mathrm{C}_r = \frac{n!}{(n-r)!\,r!}$$

In the simulation it can be seen that the expected number of red (i.e. not already nominated) actors for the second interviewee (*intrv*=2) is 5.6. This figure now feeds into the running total of already nominated, i.e. green, actors thus changing the probabilities for the next interview. Table 8.2 below shows the full simulation results. The information that is of interest to us is how this expected number of new nominations, i.e. newly revealed actors, (*nom*) gets smaller as the interviews progress. How this parameter decreases is very important for assessing the value of further costly interviews in terms of getting more information and, furthermore the family of functions that represents such curves allows us to estimate the final size of the network – the total hidden population. Once the curves are drawn what became obvious is that the reduction of *nom* is an exponential decrease. This is because the probabilities of the nominations occurring are binomial, this distribution can be approximated by a Poisson distribution and the decay curve of events that occur in a Poisson process is an exponential function. It is outside the scope of this thesis to do the mathematics of how the parameters of the binomial can be reconstructed into the parameters of the exponential decay curve, but they can be easily extracted by taking a natural-log-linear regression and converting back to the exponential curve. When we wish to use the exponential decay model on data that we

***Figure 8.1: UK network showing removals for Stage 1 of the reduction process (in blue)***
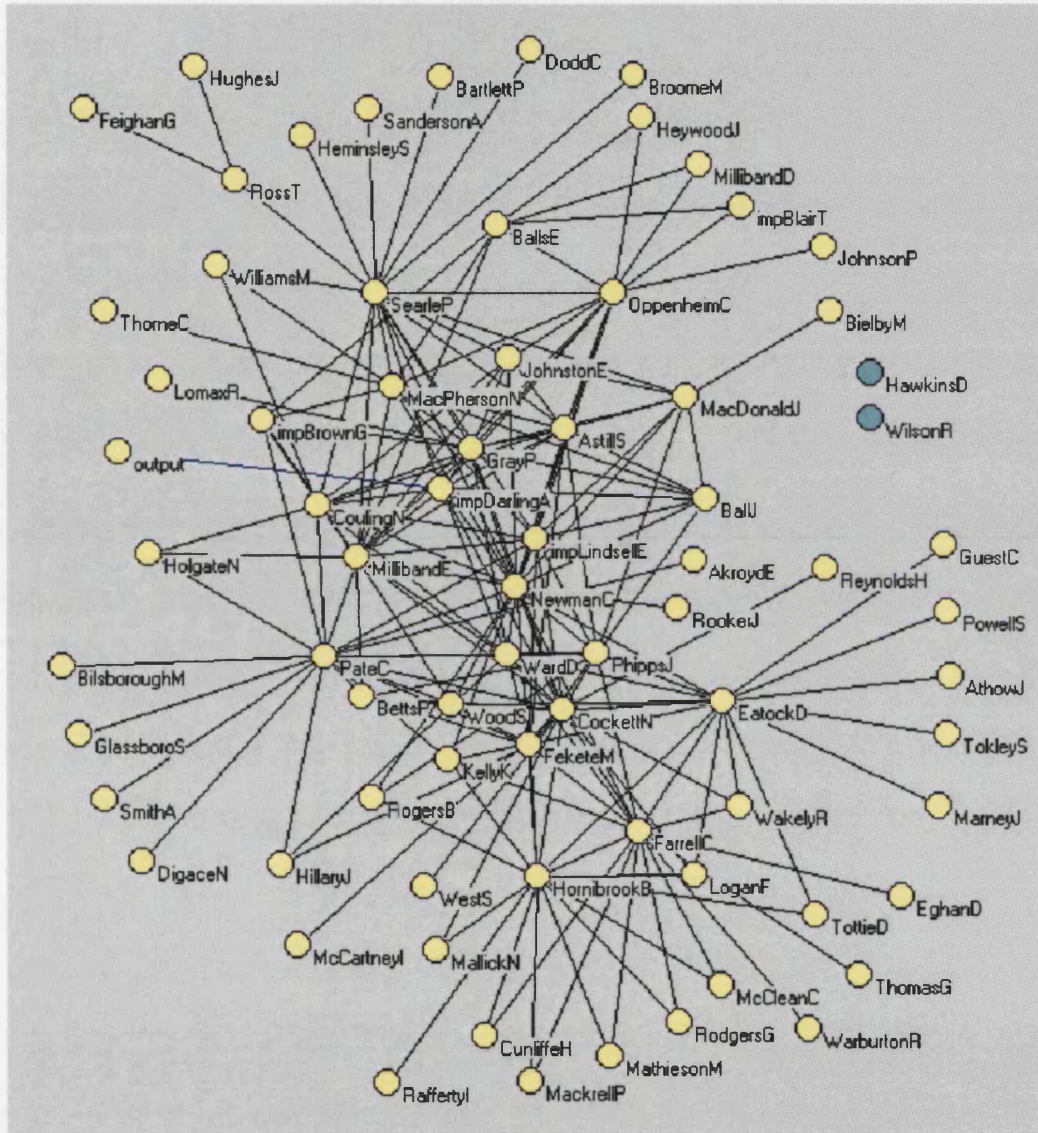


have collected we will do a similar process of reverse working to find the parameters as we will be working from point estimates and not distributions.

To obtain the curve's parameters the regression is performed on the straight line that is the natural logarithm (e) of the new nominations series (*nom*):

$$\ln(nom) = m.intrv + c$$

brought back to estimate *nom* itself this gives (taking exponentials):

$$nom = e^c \, e^{m.intrv}$$

Note that as the curve is decaying the **m** parameter is always negative. The final mathematical feature of the data that is useful to us is to see that the cumulative total of nominated actors is growing asymptotically towards the parameter we set for the overall size of the network (*netsize*). We made the assumption that the network in the simulation is of some finite size and this reflects our assumptions that an NFP is limited in size according to its definition. Thanks to the procedure of making sensible assumptions our estimate for the size of the hidden population is converging to the true value.

We use the parameters of the exponential decay curve to estimate total size of the network as it is the sum of all new nominations of all interviewees. As we are using a continuous function to model a discrete process we can sum the individual estimates of *nom* to infinity, which means all actors are interviewed:

$$netsize = \sum_{intrv=1}^{\infty} nom$$

$$= \sum_{intrv=1}^{\infty} e^c \, e^{m.intrv}$$

$$= e^c \sum_{intrv=1}^{\infty} e^{m.intrv}$$

$$= e^c . \frac{e^m}{\left(1 - e^m\right)}$$

This expression is evaluated as a check in Table 8.2 in the box 'asymptote check'. Given this model, the simulation and parameters of which are shown in Table 8.2, we can now start to examine the data that we have already collected and if we provide some parameters - combinations of the level of new nominations or the network size at

***Figure 8.2: UK network showing removals for Stage 2 of the reduction process (in blue)***
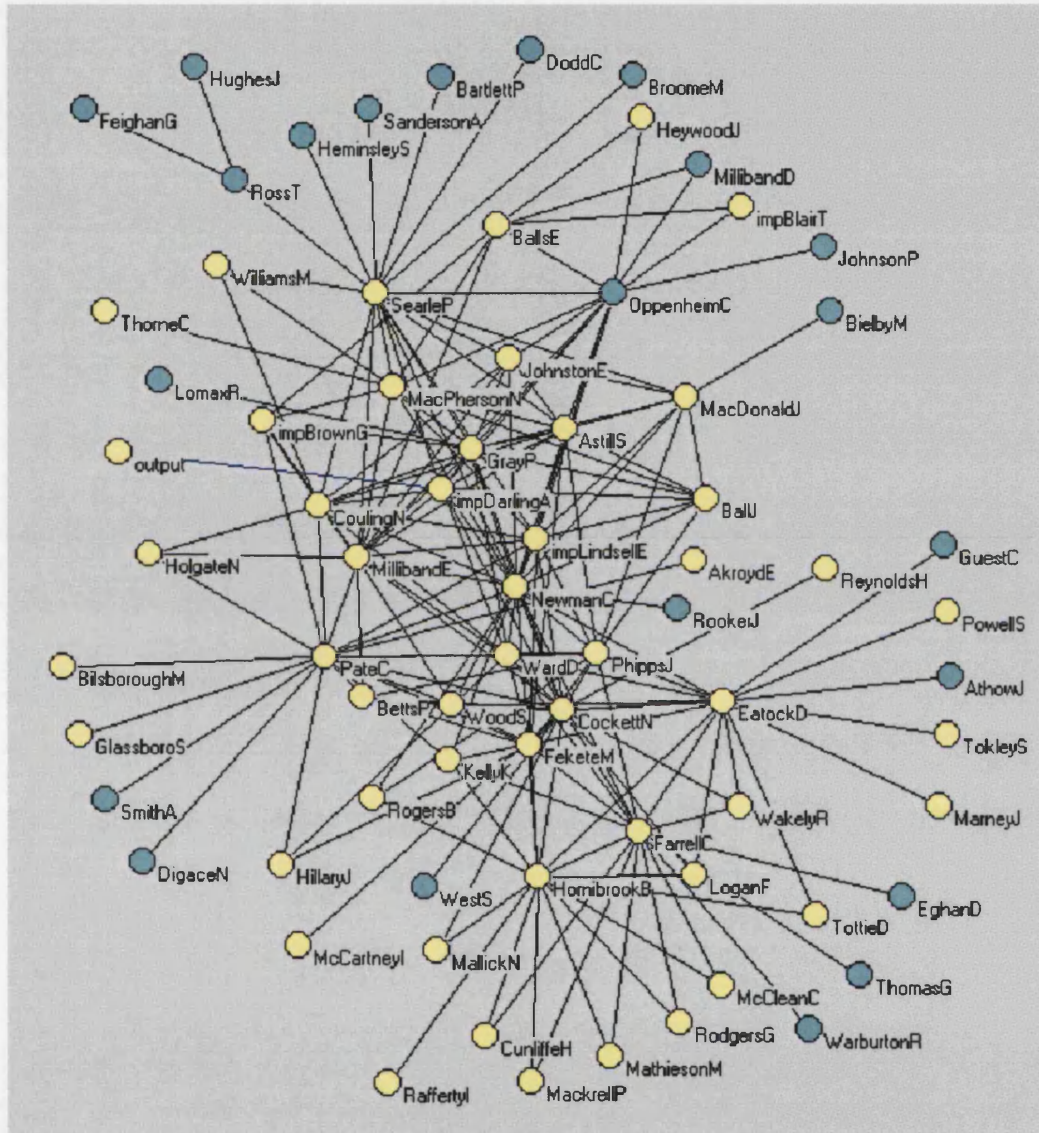


specified stages of interviewing - we can estimate any of the others. We will now end this diversion and return to the evaluation of the current network data quality.

## Interim data quality

As explained above the data was over specified to allow 'cuts' to be made to achieve a

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manageable self limiting network and to give, effectively, a sensitivity analysis on the link data.

The first step of the estimation process was to create a network exactly according to the data that had already been collected. A series of network manipulations were then carried out using Pajek (Batagelj and Mrvar 2003). The following stages were an attempt to presage the process that would create a representation of the NFP had all the data been collected. That is to say that the large population of all potential NFP members would be cut down to a size that reflects the assumption of Marin and Mayntz (1991: 17) that we have already taken on board: the actors must be able to interact rather than react. The network must also reflect the boundary definition that we adopted which was related to those who affected the 'policy output' (see Chapter 5 above). The <u>first step</u> was an iterative reduction of the network *eliminating all actors who were not nominated by at least one other actor.*[184] This makes the network equivalent to one that has been obtained by a method akin to a snowball sample. The <u>second step</u> that was taken was to *remove all links that were weaker than value three and to once again iteratively remove all actors that are not nominated by at least one actor.* This is a reasonably safe procedure as anyone that is key in the network should be mentioned by some actor more strongly even if they are weakly nominated by others. Each actor removed can later be looked at to see if they were much nominated, but only weakly, which if it is the case would be a phenomenon worth further investigation. The third step was based upon the institutional element of the boundary condition for actors: the relation to the policy output. An artificial node was inserted into the network, called 'output' that was given a reciprocated relation (an edge) of value 5 with those actors deemed to be institutionally

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[184] In formal network terms this is eliminating all nodes with an 'in-degree' of less than 1.

***Figure 8.3: UK network showing removals for Stage 3 of the reduction process (in blue)***
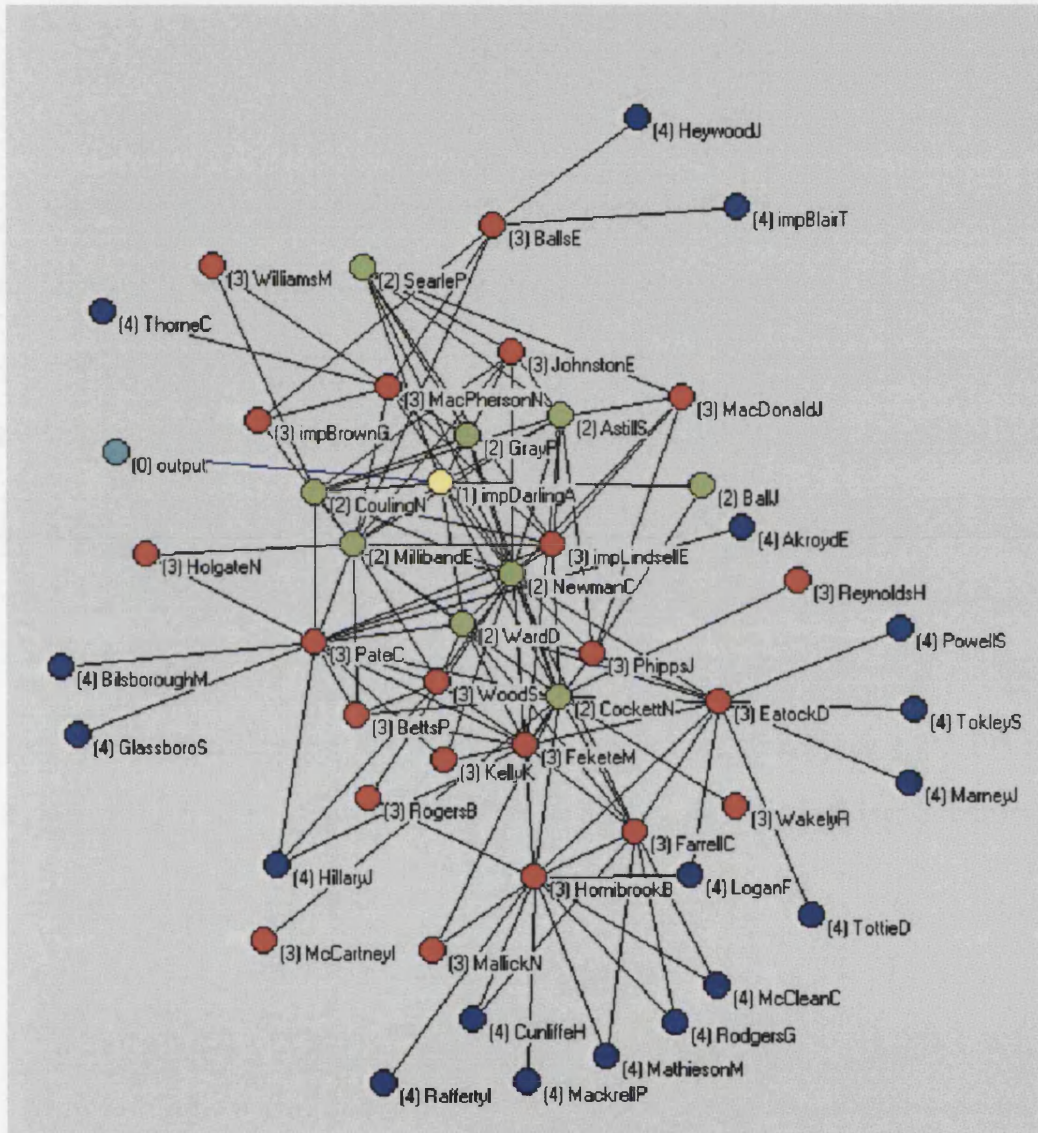


responsible for the policy output. Sensitivity analysis is also of value in this procedure as well asking, for example, if it makes a difference if the Prime Minister is deemed to be jointly responsible for the policy output along with the departmental minister, or not. The network was then partitioned into the increasing k-neighbours of this 'output' node. That is to say the network was labelled to show all those actors who, by either being

nominated or nominating, are 1-step from the output, 2-steps and so on. There is a slight weakness in this procedure; it might be argued that this allows an actor to include themselves in the NFP through interview by claiming that they had contact with the actor responsible for the output. There is indeed some danger in allowing this 'output neighbour' measure rather than just 'input neighbour' (i.e. they were nominated by the actor, or by someone nominated by the actor), however it is almost entirely unavoidable in this study as the actors responsible for the output were not interviewed. The actors that were more than 3 steps away from the output node were removed. So, in effect, the <u>third step</u> *removed actors more than 2 steps away from those deemed to be institutionally responsible for the output*. This final NFP representation was then labelled to show the input degree (i.e. number of nominations) received by each actor.

Each step removed either some actors that were interviewed (although certain actors concerned were interviewed for case study purposes in the knowledge that they would very likely be removed) or it removed some actors that could have been expected to be central in the network - the consequences of this are discussed below. Any actors that were eliminated on the technical conditions applied but were known to be connected to the network through other information, either primary or secondary sources, were noted. Any re-inclusions cascading on from these additions were also noted. Secondly any actors that should have been 'promoted' to nearer the output, due to a link from a higher actor that was known to exist from similar information as the reinclusions, were noted for promotion and the effects of this were cascaded to their known neighbours if appropriate for noting inclusion or promotion.

At this stage a network could be created that was a 'best guess' on the existing data and additional information. What was needed, however, was an estimate for the size of

***Figure 8.5: French network showing removals for Stage 2 of the reduction process (in blue)***
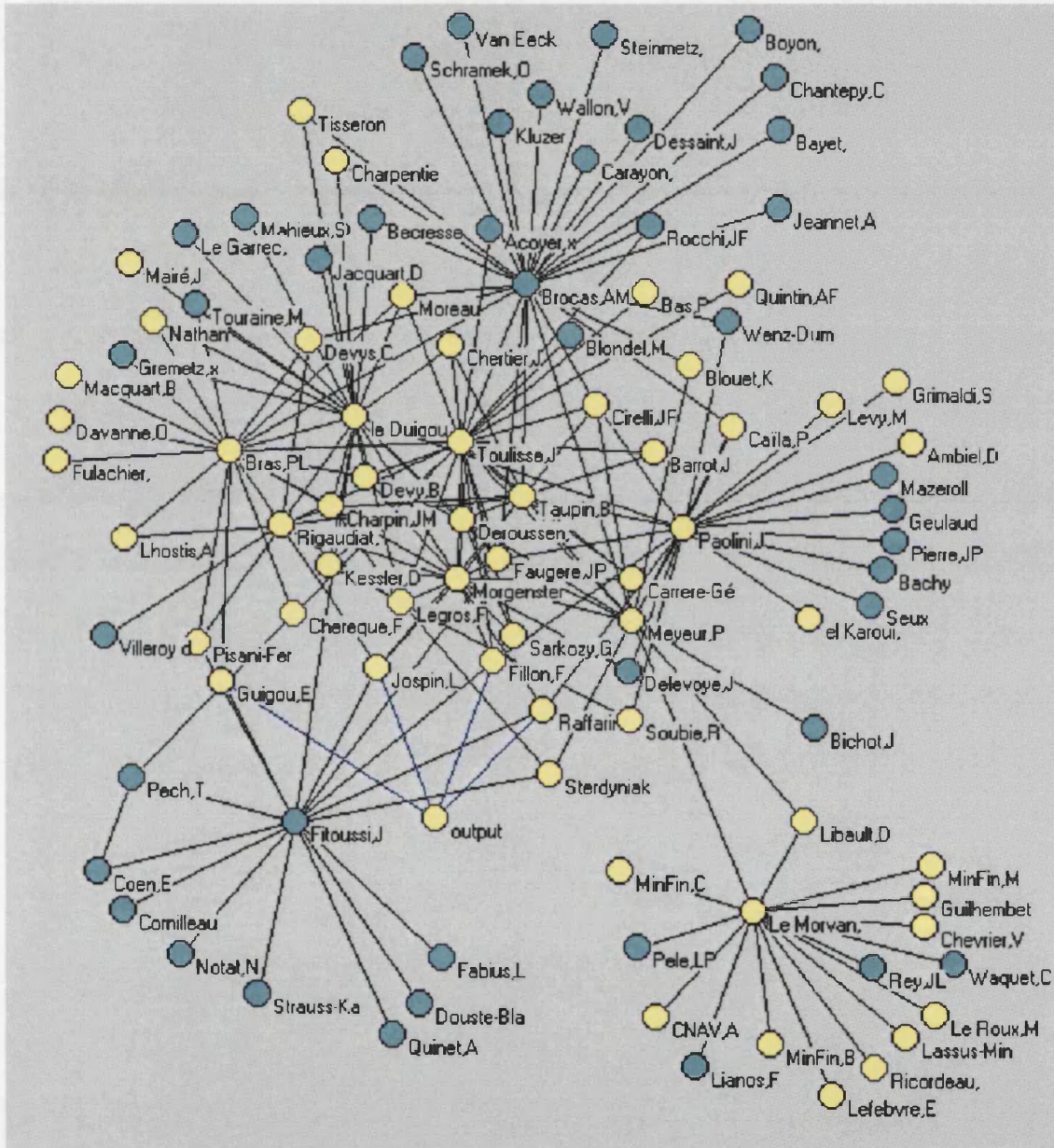


the complete network to draw conclusions about remaining 'missing and unknown' actors. If, for example, a level two actor (i.e. an actor that is one step from the actors connected to the output) who was already known to be in the network had not been interviewed then, while some of their contacts would almost certainly already be in the

current estimate of the NFP, there is some probability that they would introduce one or more entirely new actors into the NFP estimate. This is the effect of the 'snowball'-type design discussed earlier. In order to try and estimate how complete the network was, in terms of actors, some basic statistics were constructed, particularly important to estimate was the current 'growth velocity' of the snowball. To recap, while the snowball grows much faster in the early stages of the network construction, in the later stages even though the newly interviewed actors would continue to roll it, on average, over just as much ground (i.e. nominate the same number of actors) they would not pick up as much snow because much of this ground would have already been covered at least once already.[185]

***Figure 8.4: Modelled running total of estimated NFP network size (total) and new nominations (nom) at each interview***
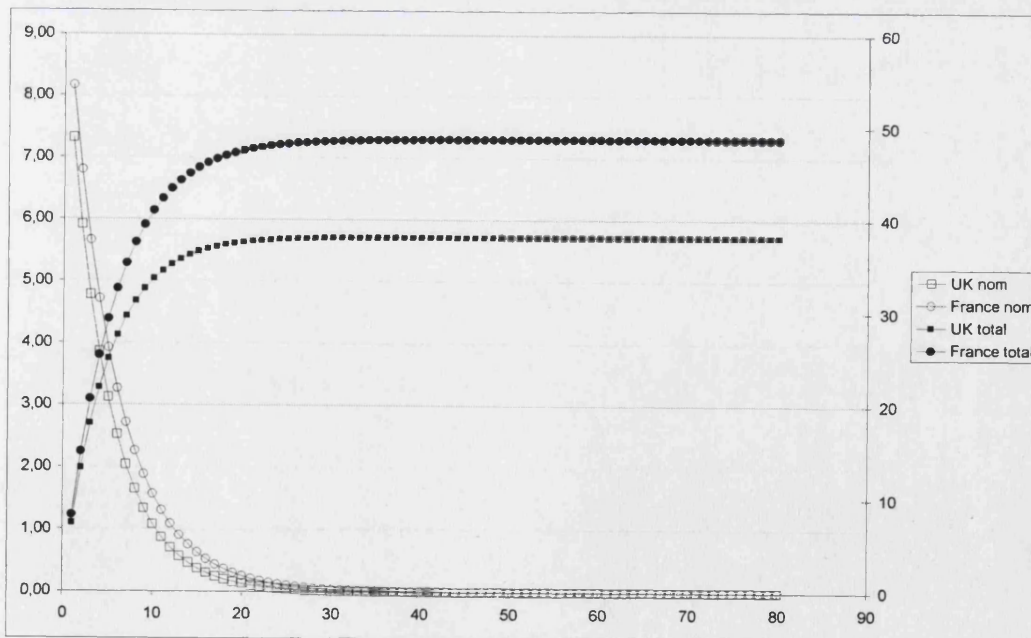


If we can estimate the growth velocity to see how many new actors are likely to be introduced by each interview and, as we have seen above, the set of equations that allows

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[185] All other things being equal, which they were not due to the sampling techniques used, see above.

us to do this can also predict the limit size of the network and so we can estimate how many actors are 'missing and unknown'.

The tables 8.3 and 8.4 show two key statistics at the various stages of the network reduction process described above; in the table 'all' indicates no reduction, after stage 2 of the process is labelled 'S>2' and after stage 3, i.e. the resultant NFP, is denoted by 'NFP'. The statistics shown for these three stages are '*out*', the number of contacts named by each actor (the out-degree) and '*nom*' value that shows how many additional actors would have been added to the network if each actor already interviewed had been the last actor to be interviewed.[186] So for example out (NFP) indicates the total number of contacts named by each actor who still remain after the final stage of the network reduction process. The means are also calculated for these per actor statistics.

### Table 8.3: Snowball growth velocity for France after 18 interviews

| France | Actor | NFP level | out (NFP) | out (S>2) | nom (NFP) | nom (S>2) | nom all |
|---|---|---|---|---|---|---|---|
| | Le Morvan2119 | 4 | | 11 | | 10 | 14 |
| | Brocas2049 | | | | | | 11 |
| | Mandraud2004 | | | | | | 5 |
| | Fitoussi2006 | | | | | | 4 |
| | Paolini2090 | 2 | 7 | 7 | 4 | 4 | 9 |
| | le Duigou2010 | 3 | 11 | 14 | 0 | 3 | 7 |
| | Bras2051 | 2 | 10 | 10 | 5 | 3 | 4 |
| | Creyssel2122 | | | | | | 2 |
| | Toulisse2013 | 2 | 12 | 13 | 1 | 1 | 2 |
| | Meyeur2099 | 3 | 3 | 5 | 1 | 1 | 2 |
| | Rigaudiat2036 | 2 | 11 | 11 | 1 | 0 | 1 |
| | Taupin2003 | 2 | 11 | 11 | 0 | 0 | 0 |
| | Morgenstern2018 | 2 | 10 | 10 | 0 | 0 | 0 |
| | Legros2029 | 3 | 5 | 8 | 0 | 0 | 0 |
| | Bertrand2123 | | | | | | 5 |
| | Deroussen2017 | 3 | 5 | 5 | 0 | 0 | 0 |
| | Pech2109 | | | | | | 1 |
| | Sterdyniak2007 | 3 | | 0 | | 0 | 0 |
| | **MEANS** | 2.40 | 8.50 | 8.75 | 1.20 | 1.83 | 3.72 |
| | nfplevel2 | | 10.20 | | 1.83 | | |
| | nfplevel3 | | 8.00 | | 0.25 | | |
| | n | 12 | 10 | 12 | 10 | 12 | 18 |

The data shows that for both countries the snowball has slowed down considerably,

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[186] Calculated from the raw data using Microsoft Access SQL queries.

### *Table 8.5: Model for UK stage 3 NFP (19 actors) after 21 interviews*

## UK: Exponential model

| int | UK nom | UK nom/ avnom | UK total | UK total/ netsize |
|---|---|---|---|---|
| 1 | 7.32 | 1.00 | 7 | 0.19 |
| 2 | 5.91 | 0.81 | 13 | 0.35 |
| 3 | 4.78 | 0.65 | 18 | 0.47 |
| 4 | 3.86 | 0.53 | 22 | 0.57 |
| 5 | 3.12 | 0.43 | 25 | 0.66 |
| 6 | 2.52 | 0.34 | 28 | 0.72 |
| 7 | 2.04 | 0.28 | 30 | 0.78 |
| 8 | 1.65 | 0.22 | 31 | 0.82 |
| 9 | 1.33 | 0.18 | 33 | 0.85 |
| 10 | 1.07 | 0.15 | 34 | 0.88 |
| 11 | 0.87 | 0.12 | 34 | 0.90 |
| 12 | 0.70 | 0.10 | 35 | 0.92 |
| 13 | 0.57 | 0.08 | 36 | 0.94 |
| 14 | 0.46 | 0.06 | 36 | 0.95 |
| 15 | 0.37 | 0.05 | 37 | 0.96 |
| 16 | 0.30 | 0.04 | 37 | 0.97 |
| 17 | 0.24 | 0.03 | 37 | 0.97 |
| 18 | 0.20 | 0.03 | 37 | 0.98 |
| 19 | 0.16 | 0.02 | 37 | 0.98 |
| 20 | 0.13 | 0.02 | 38 | 0.99 |
| 21 | 0.10 | 0.01 | 38 | 0.99 |
| 22 | 0.08 | 0.01 | 38 | 0.99 |
| 23 | 0.07 | 0.01 | 38 | 0.99 |
| 24 | 0.05 | 0.01 | 38 | 0.99 |
| 25 | 0.04 | 0.01 | 38 | 1.00 |
| 26 | 0.04 | 0.00 | 38 | 1.00 |
| 27 | 0.03 | 0.00 | 38 | 1.00 |
| 28 | 0.02 | 0.00 | 38 | 1.00 |
| 29 | 0.02 | 0.00 | 38 | 1.00 |
| 30 | 0.02 | 0.00 | 38 | 1.00 |
| 31 | 0.01 | 0.00 | 38 | 1.00 |
| 32 | 0.01 | 0.00 | 38 | 1.00 |
| 33 | 0.01 | 0.00 | 38 | 1.00 |
| 34 | 0.01 | 0.00 | 38 | 1.00 |
| 35 | 0.01 | 0.00 | 38 | 1.00 |
| 36 | 0.00 | 0.00 | 38 | 1.00 |
| 37 | 0.00 | 0.00 | 38 | 1.00 |
| 38 | 0.00 | 0.00 | 38 | 1.00 |
| 39 | 0.00 | 0.00 | 38 | 1.00 |
| 40 | 0.00 | 0.00 | 38 | 1.00 |

**Data (note 1)**

| int | actual nom | ln |
|---|---|---|
| 1 | 7.32 | 1.99 |
| 19 | 0.16 | -1.85 |

linear regression on the int' (interview) and ln (natural log of data) produces parameters

**Parameters**

| | |
|---|---|
| exp (c ) | 9.053382 |
| m | -0.213103 |
| c | 2.203138 |

**Estimate**

| | |
|---|---|
| netsize | 38.11748 |

Note 1: The data here comes from Table 5.4 being the mean out(NFP) and nom(NFP) figures respectively, that is the expected average nominations if each actor were interviewee 1 and 19.

the out degree value (forgetting the complications inherent in reducing the network) gives an idea of the initial growth velocity of the snowball: the mean number of nominations (link strength > 2) supposing each actor was the hypothetical first interviewee would have been somewhere around eight or nine for France and for the UK around eight (this is the mean of *out(S>2)*). By the time we get to the 14th interview for

France and 21st for the UK, the growth velocity, which is the mean of the 'nom' variable, has dropped, in the experimentally reduced NFPs of 12 and 19 actors, to just over 1 and under 0.2 respectively (mean of *nom(NFP)*).

*Table 8.4: Snowball growth velocity for UK after 21 interviews*

| UK | Actor | NFP level | out (NFP) | out (S>2) | nom (NFP) | nom (S>2) | nom all |
|----|-------|-----------|-----------|-----------|-----------|-----------|---------|
|  | Pate1011 | 3 | 11 | 15 | 0 | 3 | 5 |
|  | Eatock1013 | 3 | 5 | 10 | 0 | 3 | 5 |
|  | Cockett1008 | 2 | 17 | 18 | 3 | 2 | 3 |
|  | Hornibrook1033 | 3 | 6 | 13 | 0 | 1 | 1 |
|  | MacPherson1020 | 2 | 6 | 7 | 0 | 1 | 1 |
|  | Oppenheim1034 |  |  | 7 |  | 1 | 1 |
|  | Fekete1002 | 3 | 12 | 12 | 0 | 0 | 0 |
|  | New man1001 | 2 | 12 | 12 | 0 | 0 | 1 |
|  | Milliband1024 | 2 | 10 | 10 | 0 | 0 | 0 |
|  | Couling1040 | 2 | 9 | 9 | 0 | 0 | 0 |
|  | Farrell1006 | 3 | 6 | 9 | 0 | 0 | 3 |
|  | Wood1016 | 3 | 7 | 8 | 0 | 0 | 0 |
|  | Astill1005 | 2 | 7 | 7 | 0 | 0 | 0 |
|  | Phipps1003 | 3 | 7 | 7 | 0 | 0 | 0 |
|  | Ward1007 | 2 | 7 | 7 | 0 | 0 | 0 |
|  | Searle1018 | 2 | 6 | 6 | 0 | 0 | 6 |
|  | Balls1058 | 2 | 3 | 5 | 0 | 0 | 0 |
|  | MacDonald1012 | 3 | 4 | 4 | 0 | 0 | 1 |
|  | Gray1019 | 2 | 3 | 3 | 0 | 0 | 1 |
|  | Ball1009 | 2 | 1 | 1 | 0 | 0 | 0 |
|  | Ross1036 |  |  | 0 |  | 0 | 2 |
|  | MEANS | 2.42 | 7.32 | 8.10 | 0.16 | 0.52 | 1.43 |
|  | nfplevel2 |  |  | 7.73 |  | 0.27 |  |
|  | nfplevel3 |  |  | 9.44 |  | 0.89 |  |
|  | n | 19 | 19 | 21 | 19 | 21 | 21 |

This figure represents the mean number of actors being nominated that had not been nominated before, had each interviewee been last. This implies that we can on average a hypothetical next interviewee to own around this number of 'missing and unknown' actors. Further hypothetical interviews would reveal fewer and fewer 'missing and unknowns' according to the same pattern of decline in the snowball's velocity as has already been seen. Remember that this is not a linear relation, it falls away exponentially as described above and as illustrated in Figures 8.1 and 8.2.

**Figure 8.7: France network showing removals for Stage 3 of the reduction process (in pink and dark blue – labelled 4 and 5)**
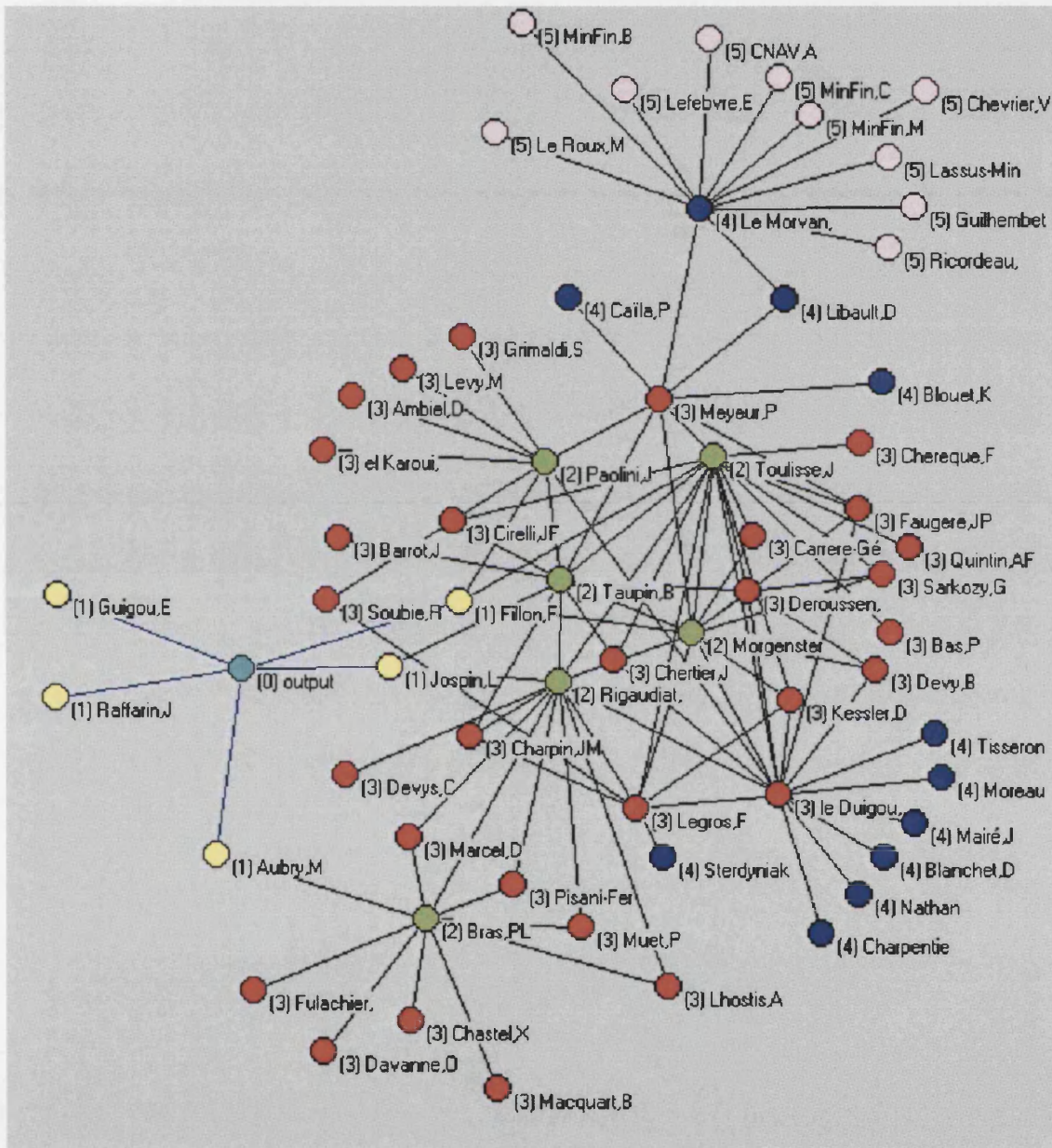


With the model described above and the statistics shown in Tables 8.2 and 8.3 on the snowball velocities, we can construct a model of the snowball sampling process for each of the different versions of the NFP. Table 8.5 shows the series of data that forms the model for the UK stage 3 reduced NFP.

***Figure 8.6: Fraction of total estimated NFP network size (total/netsize) and
fraction of new nominations in total nominations (nom/avnom) at each
interview***
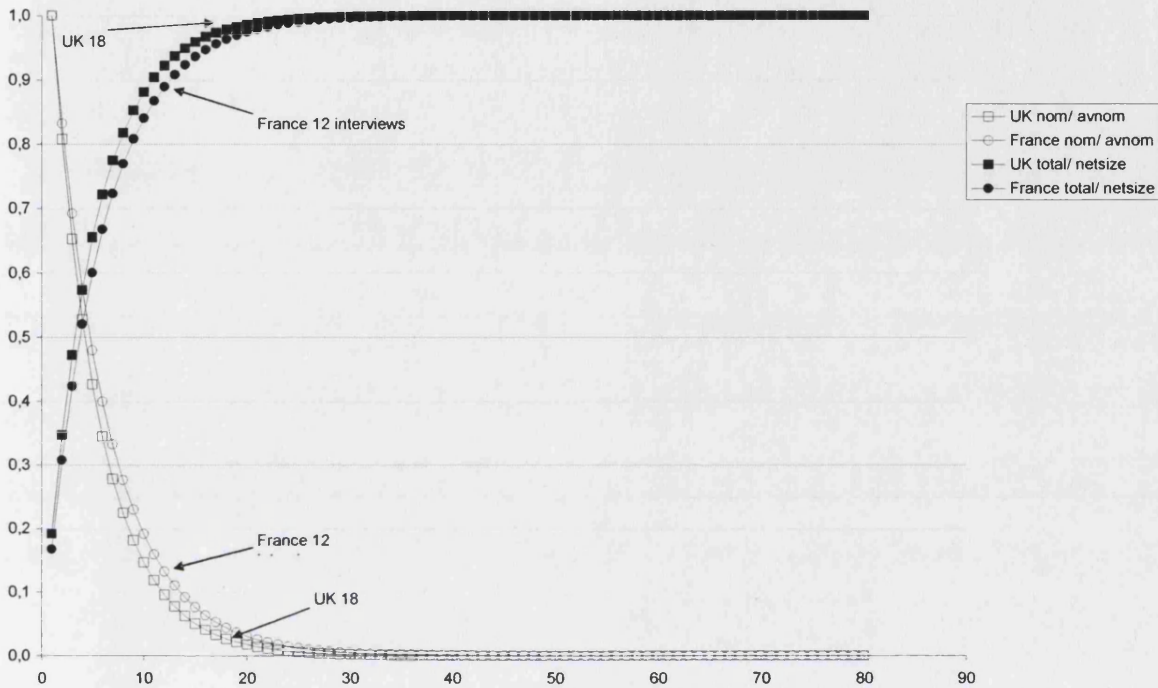


As can be seen in Table 8.5 we have the estimate of the final network size (netsize)
and we can see the additional previously un-nominated actors that can be expected to
emerge at each additional interview as well as the running cumulative total. These data
are presented in Figures 8.4 and 8.6 and show the rapid reduction in new nominations
and the asymptotic approach to the final network size. Note that the calculations are
based on continuous functions and as such fractions can be taken to represent
probabilities, e.g. a new nominations value of 0.25 for the sixteenth interview would
indicate a one-in-four chance of a new nomination in that interview

## Creating a definitve NFP

These charts are valuable for making a rough assessment of how the data collection is
progressing and given that the size of the estimated NFP that emerged from the last stage

of the reduction process was very close to the estimated final network size it was decided that both the statistics from this model and the estimated NFP with potential promotions and additions should be looked at more closely. Firstly the model results for the estimated sizes of the three stages of the networks for the two countries were estimated at both the current level of interviews ad the projected final network size. The standard errors of the means in Tables 8.3 and 8.4 were also used to calculate confidence intervals around the network size estimates.

*Table 8.6: UK Network sizes with 95% confidence intervals: at interview=int (total) and final projected size (netsize) from modelled interview-only data and all available information*

UK

|  | out all | nom all | out (S>2) | nom (S>2) | out (NFP) | nom (NFP) |
|---|---|---|---|---|---|---|
| MEANS | 12.19 | 1.43 | 8.10 | 0.52 | 7.32 | 0.16 |
| int | 21 | | 21 | | 19 | |
| est total | 107 | | 60 | | 37 | |
| upper 95CI | 142 | | 96 | | 59 | |
| lower 95CI | 85 | | 10 | | 9 | |
| data total | 72 | | 50 | | 32 | |
| est netsize | 120 | | 63 | | 38 | |
| upper 95CI | 167 | | 110 | | 62 | |
| lower 95CI | 71 | | 14 | | 12 | |
| data netsize | | | | | 36 | |

*Table 8.7: France Network sizes with 95% confidence intervals: at interview=int (total) and final projected size (netsize) from modelled interview-only data and all available information*

France

|  | out all | nom all | out (S>2) | nom (S>2) | out (NFP) | nom (NFP) |
|---|---|---|---|---|---|---|
| MEANS | 14.89 | 3.72 | 8.75 | 1.83 | 8.50 | 1.20 |
| int | 18 | | 12 | | 10 | |
| est total | 146 | | 54 | | 39 | |
| upper 95CI | 205 | | 83 | | 58 | |
| lower 95CI | 85 | | 10 | | 9 | |
| data total | 107 | | 60 | | 41 | |
| est netsize | 190 | | 66 | | 43 | |
| upper 95CI | 287 | | 118 | | 72 | |
| lower 95CI | 98 | | 10 | | 9 | |
| data netsize | | | | | 51 | |

## Table 8.8: removed actors in the French network reduction

| Stage 1 | | Stage 2 | | Stage 3 | |
|---|---|---|---|---|---|
| * Bertrand,X | r3 | * Brocas,AM | | * Blouet,K | |
| * Brimont,S | | * Delevoye,J | r3 | * Caïla,P | r3 |
| * Chirac,J | rX | * Fabius,L | | * Le Morvan,F | |
| * Creyssel,J | r3 | * Fitoussi,J | | * Libault,D | |
| * Gayssot,J-M | rY | * Pech,T | | * Moreau,Y | |
| * Hollande,F | | * Rocchi,JF | r3 | * Sterdyniak,H | |
| * Hue,R | | * Sapin,M | | Blanchet,D | |
| * Mandraud,I | | * Schramek,O | | Charpentier | |
| * Mer,F | | * Strauss-Kahn,D | rZ | Chevrier,V | |
| * Rocard,M | | * Villeroy de Gallau | | CNAV,A | |
| * Salat-Barou,I | rX | Acoyer, | | Guilhembet | |
| * Seillere,E | r3 | Bachy, | | Lassus-Min | |
| | | Bayet, | | Le Roux,M | |
| | | Becresse, | | Lefebvre,E | |
| | | Bichot,J | | Mairé,J | |
| | | Blondel,M | | MinFin,B | |
| | | Boyon, | | MinFin,C | |
| | | Carayon, | | MinFin,M | |
| | | Chantepy,C | | Nathan | |
| | | Coen,E | | Ricordeau, | |
| | | Cornilleau | | Tisseron,S | |
| | | Dessaint,J | | | |
| | | Douste-Blazy,P | | | |
| | | Geulaud | | | |
| | | Gremetz, | | | |
| | | Jacquart,D | | | |
| | | Jeannet,A | | | |
| | | Kluzer | | | |
| | | Labroille, | | | |
| | | Le Garrec, | | | |
| | | Lianos,F | | | |
| | | Mahieux,S | | | |
| | | Mazeroll | | | |
| | | Notat,N | | | |
| | | Pele,LP | | | |
| | | Pierre,JP | | | |
| | | Quinet,A | | | |
| | | Rey,JL | | | |
| | | Seux | | | |
| | | Steinmetz, | | | |
| | | Touraine,M | | | |
| | | Van Eeck | | | |
| | | Wallon,V | | | |
| | | Waquet,C | | | |
| | | Wenz-Dumas | | | |

***Figure 8.8: UK final network after reinclusions (showing colour coded k-steps from Darling)***
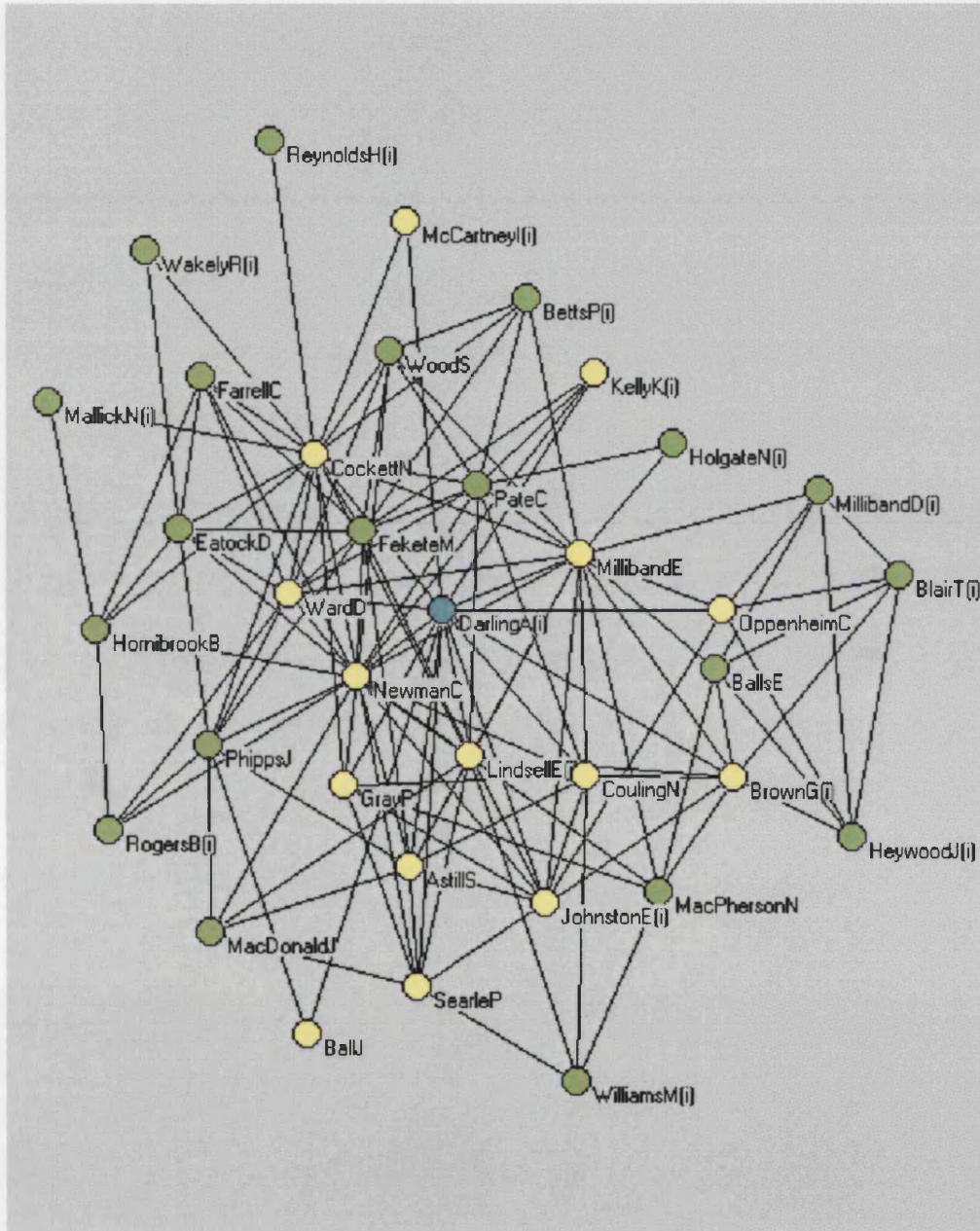


Tables 8.6 and 8.7 show the relevant parameters from Tables 8.3 and 8.4 along with the calculated estimates for 'total' (being the network size at the given number of interviews) and 'netsize' (the projected final network size). The equivalent figures from

the actual data and the reintroduction/promotion process carried out on the basis of other information are also shown. The table thus presents, on one hand 'est', the estimated figures modelled using interview data relating only to the interviewed actors and, on the other, the 'data' figures based on all available information from, but not limited to, the interviews.

For both UK and France it can be seen from the tables 8.6 and 8.7 that, in the estimated NFP and also for the version reduced on the link stronger than two criterion , the estimated size of the network at this stage (19 and 10 interviews respectively) shows a good correspondence with the actual network size (indicating a good model) and that the projected final network size is only a little bigger than the current position.

For this intermediate NFP version we can also see that the cascading reinclusion and promotion technique used to try and create a final network gives a figure very close tothe projected final network size from the model (model estimate of 38 compared to a created 36 for the UK and model estimate of 43 compared to a created 51 for France). It can therefore be concluded from this data summary and from the modelled curves that we are extremely close to the end of discovering new actors and that we have almost completely enumerated the NFP through interviews already conducted. The next two paragraphs give a summary of the process of reduction and the reintroduction and promotion process that led to the predicted final NFP versions.

In Table 8.8 the actors for the French case that are excluded at each stage of the network reduction process are listed, note that Stage 1 removes a large number of actors who have not been referenced at all but were present in the actor list due to either the initial informant or other sources. Table 8.7 tells us that there were estimated to be, at the ten interviews stage, 39 actors in the network and there were 41 in the reduced network

***Figure 8.9: French final network after reinclusions (showing colour coded party loyalty – blue = left, yellow = non-aligned, green = right)***
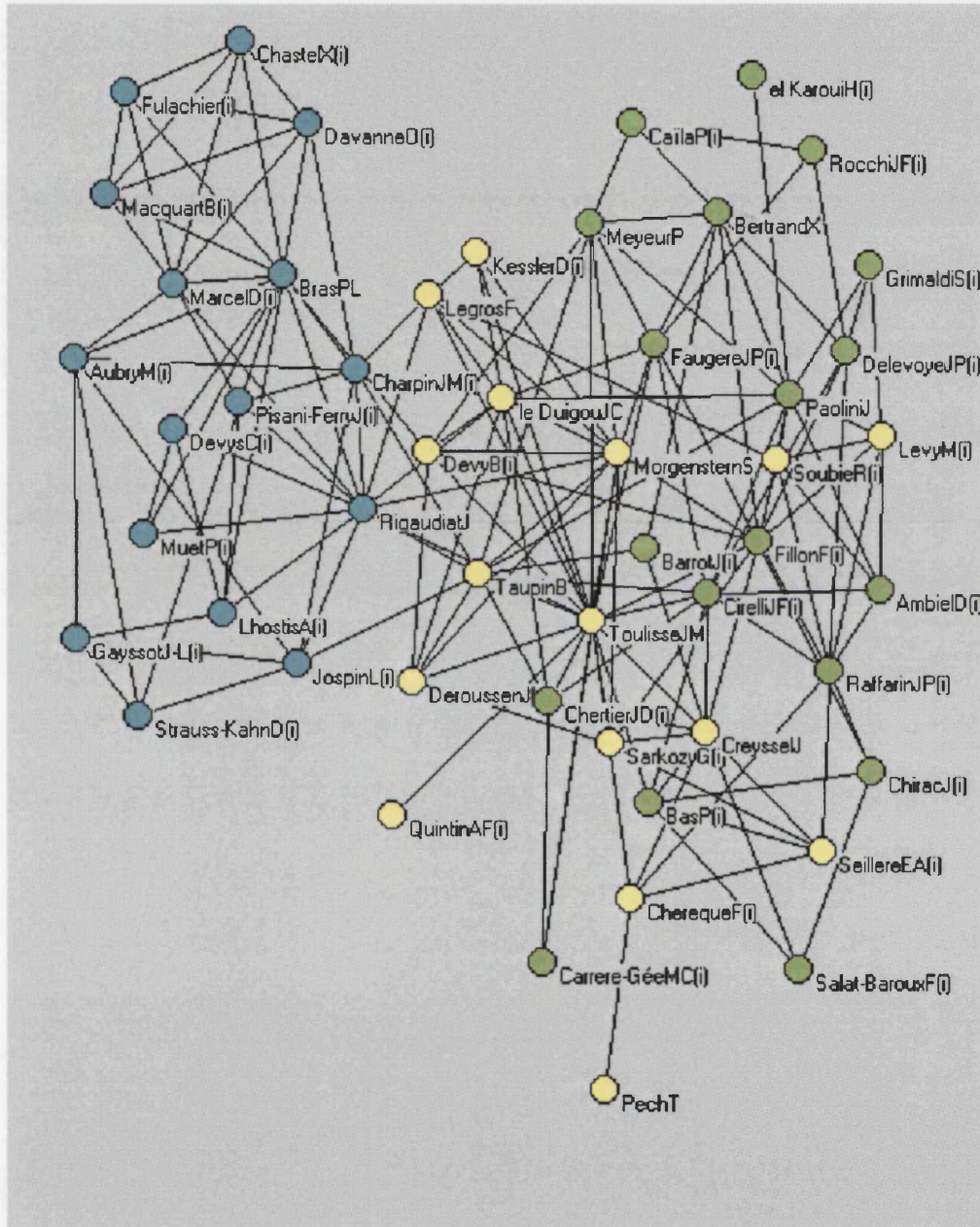


that was created from the data. The estimate for the full network is that it would have 43 actors. On the removal lists in Table 8.8 the actors that we will reintroduce have been annotated – this pushes the network size up to 51, eight more actors than the estimate,

we ought not to expect many others. The readditions are classified into three groups. The

first and least controversial is 'r3', which denotes an actor added in as a result of reliable

third party information given by interviewees, limited to those interviewees who had

described specific working practices (informal committees, continuing sets of relations

such as all technical advisers working closely together) and excluding implicit links

(such as someone saying that minister X was important, hence implying that they,

minister X, had contact with another key minister). The second group is denoted by 'rX'

which introduces the President of the Republic Jacques Chirac and his most senior

Cabinet adviser on social issues, Frederic Salat-Barroux on the grounds that there is

good third party evidence that he (Salat-Barroux) was involved in the policy making

process and that we can assume that the President discusses a politically sensitive

policy like this with his Prime Minister. This is particularly likely in this specific case of

President and Prime-Minister (see Chapter 3). The last two reasons for reintroduction

are denoted 'rY' and 'rZ', they both refer to the reasonable deduction that if a minister's

advisers are being nominated by others advisers then we can safely assume that the

minister is also involved (a similar argument, in fact, to that for introducing Chirac). It is

interesting that this fails to introduce either Elisabeth Guigou, the Minister for Social

Affairs in the Jospin II Government nor Laurent Fabius, the Minister of Economic

Affairs in the same Government. Another notable exception is that of Francis Mer, the

Minister of Finance for Raffarin during the period under consideration. While there is

ample evidence[187] of many actors formerly at Bercy (the Ministry of Economic Affairs)

there are no nominations of anyone currently serving there.[188] There are two promotions

to be made on the basis of similar information used for the reintroductions: Phillipe Bas

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[187] Interview with Jacques Creyssel.

[188] There is evidence from the interviews that this is a reasonable finding.

was nominated in the network and being the adviser of Raffarin we can assume that a link exists promoting him to level two, this has no knock-on effects as he was not interviewed and so has no contacts that were excluded as level 4 that need to be reintroduced, in addition Francois Chereque, who from several sources is known to have been involved in the end game of the policy process certainly has a link worth 3 to the PM – this has the knock on effect of introducing Thierry Pech who worked for him at the CFDT at the time.

For the UK case the data in Table 8.6 shows at the 19 interview stage an estimated network size of 37 while the network created from the data has 32 actors. The estimated size of the full network is predicted to be 38 – with the inclusions described below the data finally creates a network of 36 actors, an acceptable approximation. There is only one potential set of reinclusions for the UK, annotated on Table 8.9, which circulate around the Prime Minister and his advisers that were known to be involved in the process. There are several references from actors towards the PM's advisers and Ed Balls references the PM and his Private Secretary, but as Balls is currently at level 3 in the network Blair is removed. Since we have at least two reasons (see below) for reversing this elimination Blair can, at least for now, be included at level 2 and so his advisers are reincluded at level 3. On the promotions side there is some work to be done as the key actor for the output, the minister Alastair Darling, was not interviewed but there is good evidence about many actors who worked directly with him. Hence, Gordon Brown the Chancellor of the Exchequer, Elspeth Johnson, Darling's special adviser, and Kate Kelly, his Private Secretary, can be safely assumed to have been level 2 even though neither they nor Darling have interview data to support this. Also it is clear that Emma Lindsell, who was the lead Treasury civil servant at Grade 7 level, was present in

small configuration meetings with Alastair Darling and would have interacted directly in

these meetings on policy matters. The implications of these promotions are not worrying

for the consequences of introducing new actors as it is clear from the UK data that the

more central actors are, the less likely they will nominate actors that are unknown to

others.

*Table 8.9: removed actors in the UK network reduction*

| Stage 1 | Stage 2 | | Stage 3 | |
|---|---|---|---|---|
| Wilson,R | * LomaxR | | * HeywoodJ | rX |
| Hawkins,D | * MillibandD | rX | * BlairT | rX |
| | * OppenheimC | rX | AkroydE | |
| | * RookerJ | | BilsboroughM | |
| | * RossT | | CunliffeH | |
| | * SmithA | | GlassboroS | |
| | AthowJ | | HillaryJ | |
| | BartlettP | | LoganF | |
| | BielbyM | | MackrellP | |
| | BroomeM | | MarneyJ | |
| | DigaceN | | MathiesonM | |
| | DoddC | | McCleanC | |
| | EghanD | | PowellS | |
| | FeighanG | | RaffertyI | |
| | GuestC | | RodgersG | |
| | HeminsleyS | | ThorneC | |
| | HughesJ | | TokleyS | |
| | JohnsonP | | TottieD | |
| | SandersonA | | | |
| | ThomasG | | | |
| | WarburtonR | | | |
| | WestS | | | |

As we are now sure that we will use this data for the analysis there are some further

questions to be addressed. The first question is whether Gordon Brown should be

supposed to be jointly responsible for the policy output, along with Alastair Darling.

Remember that this is not vital in terms of the analyses that will follow but only in its

effect on the actors included in this final network. The second question is about Blair and

how he is reincluded in the network. These questions are in fact linked as the only real

effect of Brown being promoted to being an output connected actor (1-step) is that Balls,

McPherson and Blair become level two actors and hence Blair's advisers are all brought in as level 3 actors (Balls' only contacts that are brought in by his promotion are Blair and his advisers so there is no extra knock-on). However, if we leave Brown at level 2, this means that Blair must be deemed to have a link strength of at least 3 with Brown or Darling (or anyone else at level 2 for that matter) to even be included and must have at least a strength 3 link with Darling in order to come in at level 2 so that his advisers to be included. The best evidence that we have in this area is from Ed Balls, he was talking to both Heywood, Blair's Senior Private Secretary and to Blair himself with strengths of 3 or above. This gives us reasonably good grounds for assuming we can impute a link strength of 3 between Blair and Brown. This is not guaranteed though as in the context of No. 10 it is likely that the actual engagement in the policy process is done by advisers and the Chancellor and the PM meet only to approve the work and tend to discuss more politics than policy. As for Darling, we have little to go on. No-one that is close to Darling in the network was meeting Blair himself and Oppenheim was the only adviser referenced from this part of the network and she was not placed above the level 3 threshold that would put her in the final network. If there was only one possibility of introducing Blair and his team and we were unsure of the probabilities it would be reasonable to call it 50-50 and so stick with our no change policy and not introduce Blair. Having two possible routes to bring the PM in means that we can be considerably less sure than 50-50 for each route and still have the overall probability on the side of introducing Blair. So no matter which values we decide to impute between the ministers and their PM we shall ᴾut Blair and his advisers in the network.We now have robust networks that can pass into the analysis phase after some double checking.

## Cleaning and integrity

Before the analyses used in the hypothesis testing can be carried out there must be a step of checking the integrity of the data and cleaning any errors either from the reporting or coding stages. At the most basic level this involved comparing either side of the 'from-to' relations to check that they are reasonable. There should also be cross checking, as mentioned in the interview schedule, of different actors report from a third-party viewpoint the existence or level of a relationship. Such integrity checking was done using the query formulation functionality in Access to give tables showing which links meet given criteria and comparing the major differences by eye to see if there were patterns of inconsistency. The final preparation involved the core data (mainly the tabulated contacts details but also actor information) being coded into matrix form ready for use in C++ or Pajek (see the analyses in Chapter 9). Access allows easy output to Excel from where, after manipulation of labels and formats, import into these packages is straightforward.

# IX. Testing the hypotheses with NFP methods

## Hypotheses 1 and 2 analysis

## The actor attributes

Hypothesis 1 and 2 are concerned with looking at the correspondence between some of the structural features of the network and the 'element 6' actor attributes that are endogenous to the network data as described in Chapter 2. For hypothesis 1, concerning functional labels, in the UK the networks were divided subgroups of analysts, lawyers, generalists, politicians and special advisers.[189] The generalist and analyst split within the Treasury is a little difficult as while the vast majority of actors from the Treasury are economists by training[190] they do not tend to be carrying out strictly analyst roles when working in the Departmental 'shadow' teams posts. The choice was more or less down to making everyone at Treasury an analyst or a generalist and as they are not working within analyst units, unlike for example, Treasury forecasters would be deemed to be, they are classed as generalist civil servants. The other questionable allocation was that of Ed Balls who was occupying the Chief Economic Adviser post at the Treasury that in the past had always been a career civil servant's job. Balls was previously special adviser to the Chancellor and had taken this post in what amounted to an open competition but on a similar contract to that of a special adviser. He did, however from most accounts, carry this post out in a way that was compatible with its former status. In terms of network relations though it is the case that given the unusual circumstances and the extreme closeness in political terms of Brown and Balls he can be classed as being 'political' and therefore grouped with the special advisers. For hypothesis 2, organisational labels, the

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[189] The group labels for UK and France are given in Appendix 11.

[190] Interestingly this is also true for quite a few of the DWP generalists.

UK network was divided into subgroups of DWP, HMT and No.10. There was no difficulty in assigning these labels. In France, due to the wider variety of organisations from which the actors in the network are drawn, the assigning of functional labels becomes more difficult and there is some possible debate over the breakdown. The first grouping consists of the members of a ministerial cabinet. This group could potentially have been broken down further into Conseiller auprès des Ministres, heads of cabinets, technical advisers and perhaps, communications advisers but this split would have defined groups that were so small that meaningful analysis would have been difficult. The next two groups of external advisers and politicians are quite safe and should not cause debate. The subdivisions within the 'social partners' are fairly sound and self-explanatory, but it could be argued that more general headings should have been found that associated functions within the social partners to their equivalents within ministries, however, the role of the negotiators from the social partners can be seen to stand alone. All the negotiators are officers of their particular organisation and so hold a legitimacy and a mandate that appointed members of the ministerial cabinet do not: they are strictly functionaries and there to do the bidding of their ministers, which, at least from an institutionalist perspective, is a quite different function from their interlocutors on the side of the social partners. In the analysis below there is an explanation of how this schema is further broken down in the light of how the dissimilarity measure works and its relation to the party structure.

The party structure is also important in assigning the organisational labels. For example, the actors at 'Matignon' the PM's office, that feature in the network have no correspondence between the two periods of left and right government. The French system and the nature of the NFP is such that 'Matignon socialist' and 'Matignon droite'

are two entirely different organisations. There was no sense in associating two organisations that saw a 100% difference in personnel. Perhaps if some of the permanent officials, the 'administration', of the Government had found their way into the final version of the NFP we may have looked again at the question, but under the circumstances all the government organisations that are staffed entirely with political actors in the NFP are treated as different organisations under left and right. The Social Partners are split, quite obviously into MEDEF and the unions, but the unions are not split as even in the absence of a common confederal body they are still theoretically one 'movement' and in any case the splitting down would merely result in a list of singletons which are of no use in the analysis. Two politicians who represent the legislature are also present in the network and their organisational label reflects their institutional position in the French political system.

## Structural equivalence and dissimilarity

If two network members have exactly the same relations with every other member of the network then they are said to be structurally equivalent and are, in structural terms at least, substitutable. For the kind of network that we are looking at this definition is not very useful and so it is transformed into a weaker proposition that concerns the similarity of different actors relations with the rest of the network. One of the interesting aspects of these comparisons is that actors do not have to be connected to each other at all to be structurally equivalent, it is only their pattern of relations that counts, not their own relation to each other (Knoke and Kuklinski 1982: 59-60).[191] The measure that we will

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[191] The values that were originally collected as strengths of relations on a scale of 5=high to 1=low need to be transformed for this part of the analysis. They are translated into distances between the nodes, hence, if two actors have a strong relation they are deemed to be close within the network. Two actors with a strong relation, at level 5, will be set at 1 unit apart, actors with a weak relation at 1 will be set 5 units apart. The transform form strength to distance is simply distance=6-strength. Somewhat confusingly the closeness or not of the actors in terms of their structural relations are also referred to as distances; two actors that are almost entirely similar would be said to be close and those almost entirely different would be said to be far away.

use for examining the structural equivalence of actors is a euclidean distance measure, d$_5$ $(u,v)$, that represents dissimilarity in structural terms between the two nodes $u$ and $v$. This measure is calculated by the software 'Pajek' (Batagelj and Mrvar 2003) and is called a corrected Euclidean-like dissimilarity: the function is reproduced below.

$$d_5(u,v)=\sqrt{\sum_{\substack{s=1 \\ s\neq u,v}}^{n}((q_{us}-q_{vs})^2+(q_{su}-q_{sv})^2)+((q_{uu}-q_{vv})^2+(q_{uv}-q_{vu})^2)}$$

*(Batagelj and Mrvar 2004)*

In this equation $q_{ij}$ represents the distance between the two actors $i$ and $j$ (which in the NFP is derived from the question about closeness of relation).

The output matrix from this calculation showing the dissimilarity measure, d$_5$, between every pair of actors, is transferred into the Excel spreadsheet program and then further manipulated. The labels representing either function or organisation are put alongside the matrix and the matrix is then sorted both horizontally and vertically on these labels and the actor names to allow the ease of calculation and visualisation using blocks as in Figure 9.1 below.

We are testing the hypotheses that 1) actor's functional labels have no structural content and 2) organisation labels have no structural content: if this hypothesis can be supported we should expect to see comparable levels of dissimilarity in roles when looking at the comparison *within* each group as when looking at the comparisons from *within to outside* each group. In formal language, supposing we call the set of actors in a given group L that is a subset of the full set of actors A and we have the set of actors split up into $n$ subsets, we are concerned with a comparison of:

$$d\ in = \cfrac{1}{\displaystyle\sum_{s=1}^{n} \left|L_s\right|^2 - \left|L_s\right|} \sum_{s=1}^{n} \sum_{\substack{u \in L_s \\ v \in L_s \\ u \neq v}} d_5(u,v)$$

and

$$d\ rest = \cfrac{1}{\displaystyle\sum_{s=1}^{n} 2\left(\left|L_s\right| - \left|\bar{L}_s\right|\right)} \sum_{s=1}^{n} \sum_{\substack{u \in L_s \\ v \notin L_s}} d_5(u,v)$$

This gives an overall comparison of the 'group member to group member' dissimilarities compared to the 'group member to outsider' but we can also get more information by looking at each group of the $s=1$ to $n$ summation separately.

### Figure 9.1: Calculation matrix for group dissimilarity statistics: UK functions

```
      a a a a a a g g g g g g g g g g g g g g g g g g g l l p p p p p s s s s
```

Column labels (diagonal): AstillS, BallJ, FeketeM, MacDonaldJ, PhippsJ, WardD, BettsP(i), CockettN, CoulingN, EatockD, FarrellC, GrayP, HeywoodJ(i), HolgateN(i), KellyK(i), LindsellE(i), MacPhersonN, NewmanC, PateC, ReynoldsH(i), RogersB(i), SearleP, WakelyR(i), WilliamsM(i), WoodS, HornibrookB, MallickN(i), BlairT(i), BrownG(i), DarlingA(i), JohnstonE(i), McCartneyI(i), BallsE, MillibandD(i), MillibandE, OppenheimC

```
a AstillS
a BallJ        16
a FeketeM      19 18
a MacDonaldJ   13 10 16
a PhippsJ      17 14 14 14
a WardD        15 14 14 15 13
g BettsP(i)    18 12 16 15 16 12
g CockettN     21 20 18 21 20 16  18
g CoulingN     17 15 21 15 19 18  17 21
g EatockD      16 12 15 13 13 12  13 17 18
g FarrellC     18 12 16 14 14 14  13 16 18  7
g GrayP        14 10 20 14 17 16  15 21 14 14 14
g HeywoodJ(i)  21 14 22 16 19 19  17 24 19 17 17 16
g HolgateN(i)  18  9 18 12 16 15   8 20 15 13 13 13 14
g KellyK(i)    15  9 16 13 14 12  11 18 15 12 13 12 16 10
g LindsellE(i) 15 20 22 19 20 19  18 23 15 20 20 16 23 18 18
g MacPhersonN  18 14 22 15 19 18  16 21 14 17 17 16 16 13 16 17
g NewmanC      18 22 20 21 22 19  22 22 20 21 22 20 26 23 21 18 23
g PateC        19 18 15 18 18 16  11 19 20 16 17 19 21 15 16 21 19 22
g ReynoldsH(i) 17  7 17 11 14 14  10 20 16 10  9 10 13  8 11 19 14 23 17
g RogersB(i)   16 11 18 12 14 14  15 18 17 12 10 13 16 12 11 20 15 22 18 10
g SearleP      12 13 19 11 16 17  17 20 13 16 16 13 18 15 13 15 14 19 19 14 14
g WakelyR(i)   17  7 17 11 14 14  11 19 16 10  9 11 14  9 11 19 14 23 17  3 11 14
g WilliamsM(i) 16 10 19 11 16 17  14 21 15 14 14 11 15 11 13 18 12 21 18 10 13 14 10
g WoodS        19 14 13 15 14 12   6 17 17 12 12 16 18 11 11 19 18 22 10 12 14 18 12 15
l HornibrookB  20 14 19 16 17 16  16 18 19 12 11 16 18 15 16 21 19 23 19 12 13 18 12 16 16
l MallickN(i)  19 10 18 13 16 16  13 19 17 11  7 13 15 11 13 20 16 23 18  7  9 16  8 12 14   9
p BlairT(i)    21 13 22 16 19 19  17 24 19 17 16 16  2 14 16 23 16 26 21 13 16 18 13 15 18 18 15
p BrownG(i)    18 16 23 17 21 20  18 23 14 20 19 15 17 15 18 17 13 22 20 16 19 17 14 20 21 18  18
p DarlingA(i)  18 20 22 19 21 22  21 24 15 21 21 16 21 19 20 16 18 20 21 19 20 16 19 19 21 22 20  21 17
p JohnstonE(i) 14 16 21 15 19 19  19 22 11 19 19 13 19 16 16 14 16 19 20 17 17 12 17 15 20 20 19  19 14 10
p McCartneyI(i)17  5 17 11 14 14  11 19 15 10 10  9 14  9 10 19 14 22 17  3 11 13  4 10 12 12  8  13 16 19 16
s BallsE       21 14 22 17 19 19  15 24 17 17 17 16 13 13 17 18 13 25 20 14 16 19 14 14 17 19 16 13 12 20 18 14
s MillibandD(i)20 13 21 16 18 18  16 23 18 16 16 16  6 13 16 22 16 25 20 13 15 18 13 15 18 13 15 17 18 15  5 17 21 19 13   13
s MillibandE   21 20 22 20 23 22  19 23 17 22 22 17 20 19 20 17 17 22 20 20 21 19 20 19 20 24 21 20 14 18 17 20 18 22      18 22
s OppenheimC   20 12 22 16 19 18  16 22 17 17 17 15 10 14 15 21 18 24 20 14 16 17 14 16 17 18 16 10 17 21 18 13           13  8 22
```

Note: a=analysts, g=generalists, l=lawyers, p=politicians, s=special advisers

The calculation is easier to see in the spreadsheet, Figure 9.1, where each of the squares in the matrix represents the groups (in this case the UK functional groups) and the values are dissimilarities, $d_5$ values, of which the averages are taken to calculate the above statistics. Only half the matrix is shown as the dissimilarity matrix is symmetric even when the matrix representing the relations is not.

A similar calculation matrix is used for the French functional groups and for the organisation groupings of both countries. The results for both the overall summation and

the individual groups is given below in Table 9.1 after the rest of the discussion on methods.

## Cliquishness

A clique was defined in Chapter 4 as being a group of actors that is well connected within itself. In our hypotheses we do not care about finding cliques but we are interested in how 'clique-like'[192] the groups are that we have already defined through exogenous labels. To do this we use a method based on the n-clique that demands 'every member of the clique can reach every other member through n or fewer binary links' (Knoke and Kuklinski 1982: 58). An n-clique thus allows connections through intermediary actors but limits the maximum distance across which such indirect interactions can occur. The original definition of an n-clique allows these connections to pass via a node outside the clique. The definition of a clique equates clique-likeness[193] with proximity of the constituent nodes in terms of path length (taken for topological networks to be the number of intermediate nodes passed through). This is the definition on which we make our analogy to in the method we will use.

The network that we are using has more information in it than simply the number of links between two of the actors as it is a metrical network. We now have to make an assumption about what this means in terms of a political network. Understanding a metrical network in terms of a metro map is easy: I do not really care how many stations I pass through to get from A to B, I just want to know the shortest path.[194] However, in a political network it is not so clear. Under the topological version it is clear that the

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[192] The word is important: we reserve the word 'cliqueish' for use later when describing whether a network has a lot of cliques in it or not. The word 'clique-like' defines whether a group itself looks like a clique.

[193] Similarly, to footnote above, the word 'cliqueishness' is reserved for describing the extent to which a network is 'cliqueish' hence the ugly word 'clique-likeness'

[194] Even this is not strictly true as there can be some cost in 'shortest path' terms translated into journey time that relates to the number of stations. It is a problem very close to that about to be described for the NFP.

shortest path is to talk directly to someone (path=1) to pass through one intermediary is next (path=2), through another intermediary makes the path longer (path=3) and so on. When we introduce link values some confusion can be created as it is not clear, referring to Figure 9.2 below, whether one might consider it better for Appleby to contact Bernard directly, even though they are five units away, or whether it would in fact be better for him to make contact via Cope and Darcy as the total path length would then only be three.

***Figure 9.2: Illustration of differing influence paths through an NFP***
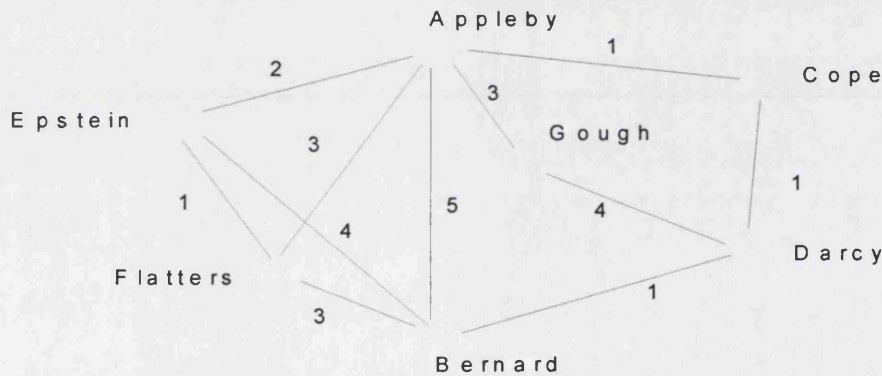


The assumption that we will make to solve this dilemma flows from the assumptions that defined the NFP originally. The criterion for being part of the network is that the actor influences the policy, the raison d'etre of the network therefore is for policy to be influenced[195] and that is the reason that communication of whatever sort is taking place. Indeed this was also the conditions that were given for rating the contact that actors had with each other – did a particular contact influence the development of the policy. Under these assumptions the number of intermediaries can be ignored and it is the path length that counts. If Appleby can make Cope accept his point because they are so close, then

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[195] Note that it does not matter why. This is not suggesting that actors are acting according to some self interested end of influencing policy. It could be entirely institutional; a Civil Servant may influence the policy because he is ordered to put forward that point of view to the Treasury officials, for example.

Cope can influence Darcy and Darcy can deal with Bernard. The likelihood (a vital term used in the true statistical sense) of Appleby getting Bernard to take any notice of him is lower via a direct approach. A sophisticated model under these assumptions may build in some loss for the fact that there are intervening actors, but this model will remain unsophisticated in that direction.

Marchiori and Latora (2000) define a measure for a metrical network, **G**, that is analogous to the path length in a topological network. This measure is called connectivity length, $D(G)$, and it consists of the harmonic mean of shortest path lengths between all vertices. The reciprocal of this measure is defined as $E(G)$, efficiency which measures the communication efficiency (amongst other things) of across the whole of matrix **G**. When defining the clique-likeness of some subgroup of the network we can use this measure which is analogous to path length to test the cliquishness of the subgroup – the higher the E(.) communication efficiency (or the shorter D(.) path length) the more cliquish is the subgroup.

Our hypotheses 1 and 2 try to establish if there is any structural content in the labels and for Hypothesis 2 particularly but also for Hypothesis 1 the suggestion was made in Chapter 7 that it would be a clique related analysis that would inform our conclusion. We can therefore look at the connectivity length and efficiency for the various subgroups defined by the organisational or functional labels to see their 'clique-likeness' and compare this to the same measures of relations from those in the subgroup to those outside it.

Unfortunately there is no standard software that will find the set of shortest path lengths from all vertices to all other vertices for a metric network, there is however a fairly straightforward mathematical method of doing this called the Floyd-Warshall

algorithm (see Appendix 3) which was written into a C++ program[196] to calculate the matrix of all shortest paths for a given network. With the output file from this program, using Excel, the harmonic means of the shortest path lengths of each member of the subgroup to each other member was calculated - called D(.) - and the harmonic mean of each shortest path lengths of each member of the subgroup to each member of the network not in the subgroup – called D(.'). These data are shown in Tables 9.1 and 9.2 on the left hand side.

As a comparator for the levels of efficiency we can also calculate the global connectivity length and efficiency over the whole network. An additional comparator can be calculated using a program that does multiple runs of the global calculation on randomised versions of the network but with the same distribution of links as in the actual network.[197] We see (Tables 9.1 and 9.2 top left) that the random version has a slightly shorter path length, i.e. that it is more efficient, than the actual network. This is due to reasons that we will examine more deeply under the hypothesis 3 discussion on small worlds, but, in brief, it is because there is a trade off for local efficiency against global efficiency and because the network, as we are about to see, has some local subgroups that are very efficient at communicating within themselves. This high local efficiency trades off against some global efficiency compared to a random network that will not have these local communication advantages.

To test the hypotheses using cliquishness we look at statistics similar to those that we examined for structural equivalence. We calculate the harmonic mean of the path lengths of every 'group member to group member' relation in groups and compare this to the harmonic mean of the path lengths of every 'group member to outsider' relation. This

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[196] See Appendix 4 Listing 1.

[197] See Appendix 11 code fragment 1.

transforms to the efficiency of 'within to within' communication and the efficiency of 'in to out' communication according to the following equations, given as before the break down into n groups called Ls.

$$E(within)=\frac{1}{\sum\limits_{s=1}^{n}|L_s|^2-|L_s|}\sum\limits_{s=1}^{n}\sum\limits_{\substack{u\in L_s \\ v\in L_s \\ u\neq v}}\frac{1}{d_{uv}}$$

$$E(outwards)=\frac{1}{\sum\limits_{s=1}^{n}2(|L_s|-|\overline{L}_s|)}\sum\limits_{s=1}^{n}\sum\limits_{\substack{u\in L_s \\ v\notin L_s}}\frac{1}{d_{uv}}$$

## Rejection of hypotheses 1 and 2

Our hypotheses are rejected for both the functions and for the organisations as there are differences between the within group statistics and the within to outside statistics under both of the measures considered. Even though the measures are quite close at the global level it is clear that we must reject the hypotheses as for some groups there are clear differences that suggest considerable structural content for at least some of the groupings.

## Table 9.1: Summary statistics for France: hypotheses 1 and 2

| France | | CLIQUISHNESS | | | | | DISSIMILARITY | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | n | D(.) | D(.') | E(.) | E(.') | | d w/in | d out | norm'd d w/in | norm'd d out |
| random | 51 | 5.0 | | 0.20 | | | | | | |
| global | 51 | 5.3 | | 0.19 | | | | | | |
| bercy soc | 2 | 1.0 | 5.3 | 1.00 | 0.19 | bercy soc | 8.6 | 9.7 | 0.38 | 0.45 |
| fonc publ dr | 4 | 3.2 | 6.5 | 0.31 | 0.15 | fonc publ dr | 8.6 | 10.4 | 0.37 | 0.50 |
| legislature | 2 | 4.0 | 6.6 | 0.25 | 0.15 | legislature | 7.1 | 9.5 | 0.28 | 0.44 |
| min aff soc dr | 4 | 1.9 | 4.8 | 0.53 | 0.21 | min aff soc dr | 11.6 | 11.5 | 0.58 | 0.57 |
| min aff soc soc | 7 | 2.4 | 6.4 | 0.42 | 0.16 | min aff soc soc | 7.1 | 11.8 | 0.27 | 0.59 |
| matignon dr | 5 | 4.4 | 5.7 | 0.23 | 0.17 | matignon dr | 10.6 | 11.2 | 0.51 | 0.55 |
| medef | 4 | 2.8 | 5.3 | 0.35 | 0.19 | medef | 10.5 | 11.1 | 0.51 | 0.55 |
| matignon soc | 4 | 2.1 | 4.8 | 0.49 | 0.21 | matignon soc | 8.6 | 10.5 | 0.37 | 0.51 |
| min transp c | 2 | 1.0 | 5.3 | 1.00 | 0.19 | min transp c | 9.4 | 10.1 | 0.43 | 0.48 |
| presidence | 4 | 2.3 | 6.6 | 0.43 | 0.15 | presidence | 8.1 | 10.0 | 0.34 | 0.47 |
| syndicats | 8 | 2.5 | 4.9 | 0.40 | 0.20 | syndicats | 10.3 | 10.9 | 0.49 | 0.53 |
| all organi. | 51 | 2.5 | 5.0 | 0.41 | 0.20 | all organi. | 9.3 | 10.9 | 0.42 | 0.53 |
| cabinet | 24 | 5.5 | 5.4 | 0.18 | 0.18 | cabinet | 10.5 | 10.9 | 0.50 | 0.53 |
| external | 2 | 3.0 | 7.0 | 0.33 | 0.14 | external | 6.2 | 11.2 | 0.21 | 0.55 |
| politician | 10 | 4.0 | 5.6 | 0.25 | 0.18 | politician | 9.6 | 10.6 | 0.44 | 0.51 |
| soc partn chef | 3 | 1.9 | 4.4 | 0.53 | 0.23 | soc partn chef | 8.5 | 10.5 | 0.37 | 0.51 |
| soc partn neg | 7 | 2.4 | 4.8 | 0.42 | 0.21 | soc partn neg | 10.6 | 11.8 | 0.51 | 0.59 |
| soc partn offc | 2 | 5.5 | 5.4 | 0.18 | 0.18 | soc partn offc | 4.8 | 8.6 | 0.12 | 0.38 |
| all functions | 51 | 4.8 | 5.3 | 0.21 | 0.19 | all functions | 10.3 | 10.9 | 0.49 | 0.53 |
| cabinet dr | 13 | 4.7 | 5.8 | 0.21 | 0.17 | cabinet dr | 9.8 | 10.8 | 0.46 | 0.52 |
| cabinet soc | 11 | 3.0 | 6.4 | 0.33 | 0.16 | cabinet soc | 8.8 | 11.6 | 0.39 | 0.57 |
| external | 2 | 3.0 | 7.0 | 0.33 | 0.14 | external | 6.2 | 11.2 | 0.21 | 0.55 |
| pol dr | 5 | 3.5 | 5.9 | 0.29 | 0.17 | pol dr | 9.9 | 11.1 | 0.46 | 0.54 |
| pol soc | 5 | 2.0 | 5.5 | 0.49 | 0.18 | pol soc | 8.4 | 10.4 | 0.36 | 0.50 |
| soc partn chef | 3 | 1.9 | 4.4 | 0.53 | 0.23 | soc partn chef | 8.5 | 11.0 | 0.37 | 0.53 |
| soc partn neg | 7 | 2.4 | 4.8 | 0.42 | 0.21 | soc partn neg | 10.6 | 11.8 | 0.51 | 0.59 |
| soc partn offc | 2 | 5.5 | 5.4 | 0.18 | 0.18 | soc partn offc | 4.8 | 8.6 | 0.12 | 0.38 |
| all functions | 51 | 3.3 | 5.6 | 0.30 | 0.18 | all functions | 9.4 | 11.0 | 0.43 | 0.54 |
| socialist | 17 | 3.1 | 7.2 | 0.32 | 0.14 | socialist | 9.6 | 11.3 | 0.44 | 0.56 |
| droite | 20 | 4.7 | 6.3 | 0.21 | 0.16 | droite | 9.9 | 11.0 | 0.46 | 0.53 |

Note 1: five actors are singletons in the organisational schema
Note 2: Three actors are singletons in the functional schema
Note 3: For the parties Charpin is included as a socialist and Levy and Soubie are included with the right. Others are as the party-functional schema
Note 4: The Cliquishness columns show the D(.) path length average within the group and the D(.') average within to outside along with the equivalent efficiency measures E(.) and E(.')
Note 5: The Dissimilarity columns show the dissimilarity measure in its raw form, d, for the witihin and within to outside along with the normalised measure 'norm'd d' that is normalised against the highest dissimilarity measure found between any two actors in the network.

### Table 9.2: Summary statistics for UK: hypotheses 1 and 2

| UK | n | CLIQUISHNESS D(.) | D(.') | E(.) | E(.') | | DISSIMILARITY d w/in | d out | norm'd d w/in | norm'd d out |
|---|---|---|---|---|---|---|---|---|---|---|
| random | 36 | 3.3 | | 0.30 | | | | | | |
| global | 36 | 3.8 | | 0.27 | | | | | | |
| | | | | | | | | | | |
| dwp | 22 | 3.4 | 4.4 | 0.29 | 0.23 | dwp | 15.4 | 17.1 | 0.55 | 0.62 |
| no10 | 4 | 1.3 | 6.0 | 0.76 | 0.17 | no10 | 6.8 | 17.5 | 0.20 | 0.64 |
| hmt | 10 | 2.5 | 4.0 | 0.40 | 0.25 | hmt | 15.8 | 17.0 | 0.57 | 0.62 |
| not no10 | 32 | 3.5 | 4.9 | 0.29 | 0.21 | not no10 | 16.1 | 17.3 | 0.58 | 0.63 |
| all organi. | | 3.1 | 4.5 | 0.32 | 0.22 | all organi. | 15.3 | 17.1 | 0.55 | 0.62 |
| analysts | 6 | 2.2 | 4.2 | 0.46 | 0.24 | analysts | 14.8 | 16.6 | 0.53 | 0.60 |
| generalists | 19 | 3.7 | 3.9 | 0.27 | 0.26 | generalists | 15.7 | 16.3 | 0.57 | 0.59 |
| lawyers | 2 | 1.0 | 4.7 | 1.00 | 0.21 | lawyers | 9.5 | 15.9 | 0.31 | 0.57 |
| politicians | 5 | 2.7 | 3.8 | 0.37 | 0.26 | politicians | 16.5 | 16.8 | 0.60 | 0.61 |
| spads | 4 | 2.6 | 3.7 | 0.38 | 0.27 | spads | 15.8 | 17.6 | 0.57 | 0.64 |
| all functions | | 3.4 | 4.0 | 0.29 | 0.25 | all functions | 15.6 | 16.6 | 0.56 | 0.60 |

Note 1: The Cliquishness columns show the D(.) path length average within the group and the D(.') average within to outside along with the equivalent efficiency measures E(.) and E(.')
Note 2: The Dissimilarity columns show the dissimilarity measure in its raw form, d, for the within and within to outside along with the normalised measure 'norm'd d' that is normalised against the highest dissimilarity measure found between any two actors in the network.

For hypothesis 1 looking at the functional labels we suggested that it would be the structural equivalence that would be most likely to display some reflection of the labelling. Looking at the bottom line on the right hand side of Table 9.1 we can see the average dissimilarity for within function group relations there is a normalised value of 0.56 compared to 0.60 for outward relations. The dissimilarity being lower for the within group relations implies that there is some structural information in these groupings i.e. the nodes within groups have similar structural properties. While this is not a pronounced difference it is repeated for each of the groups taken individually and although politicians are not comparable in their structural relations with other politicians any more than they are with others this is not so for the generalists, analysts, lawyers (albeit there are only two) and special advisers where each member of these groups is shown to have similar patterns of relations as the other members of their group. It should

be noted that all the analysts and lawyers are within the same organisational grouping as well, which may lead to the phenomenon seen in some measure, but the special advisers are not concentrated in any one organisation and so the result seems to be validated.

The hypothesis 1 results for France can be seen in the lower right hand part of Table 9.2 where functional labels have been grouped in two ways reflecting simply the functions of the actors and also the functions with party alignment. This is because the measure of dissimilarity looks at the similarity between relations across the whole of the network and we know that even if two advisers in a cabinet have in the abstract very similar sets of structural relations within the network we only find them comparable within their party. It may have been even more revealing to have constructed two sub-networks, but this would have caused problems with the actors who have no party affiliation. We do see however that structural equivalence is only weakly revealed if the party distinction is not included: the result is only as convincing as that seen in the UK. The global within/without figure is barely different in the non-party version and while the social partners groupings, who are non-party aligned anyway, support the rejection of the hypothesis, only the politicians show even a slight reason for rejection amongst the other groups. Note that the experts group only contains two actors and they both happen to work together anyway – this is not to say that the figure is not relevant, but it is less convincing than a counter-intuitive disperse selection of actors that either lead to acceptance or rejection of the hypothesis. The functional labels that include party, however, show a clear reason to reject the hypothesis that labels have no structural content as every division and the overall sum have noticeably lower levels of structural dissimilarity between themselves than between themselves and others. The breakdown

into these groups shows a much stronger meaning behind the labels in the French NFP than was seen in the UK NFP.

There is also evidence of clique-likeness in the UK functional division (seen in the bottom left-hand part of Table 9.2). Communication efficiency is almost 5 percentage points greater for relations within functional groupings than for relations between them when looked at overall. The small group of lawyers are fully connected as close as they can be giving an efficiency coefficient of 1 and analysts go over the 45% efficiency barrier for communication within themselves but are shown to have the poorest out of group communication efficiency with only 24% score. Only generalists do not show a marked difference in their 'within group' to 'out of group' communication efficiency, but this is perhaps what would be desirable for a group called 'generalists'. In the French division ignoring party only the social partners chiefs and negotiators show strong evidence of clique-likeness in their grouping showing 30 and 21 percentage points more efficiency respectively (centre left of Table 9.2) within their functional group than to outsiders, although this alone could well be enough to reject a hypothesis of no structural content in the labels. The division by function-party schema shows, in alignment with the dissimilarity measure, considerable clique-likeness in the groupings.

Here, though, we must come back to the question of data quality: for example many of the links for the socialist cabinets were imputed based on the existing information that we had from a few interviewees on how the Cabinets worked. Some of the imputation took as a basis the supposition that if actors were in the same cabinet they would have links with each other and links were not imputed at random to outsiders. While the results in the table suggesting differences in the strength of clique-likeness and similarity of relation patterns are all reasonable, given that the data for the Cabinets of the right

contradict, in terms of working practices what we do know for sure about the socialists, there is still some room to understand that both clique-likeness and low dissimilarity in the 'cabinet soc' line of the table is a result of applying limited knowledge and suppositions to create imputed links and does not come directly from the data. What the data suggest, for example, about the cabinets is that while the right specialised in their own particular parts of the tasks, having different sets of relations to each other and therefore complementing each other, the cabinets of the left worked more in concert and were tightly knit but substitutable for each other. This interpretation of the data on clique-likeness and dissimilarity of structural role meshes well with the fact that the left were working on less specific policy development over an extended period while the right would have had to impose, over a short space of time, a division of labour in order to achieve their aims within the timetable.

The general pattern of results for hypothesis 2 on organisational labels is quite similar. We saw earlier that, if there was to be structural content, the clique measure seemed most likely to manifest itself. At the top left of Table 9.1 we can see the results for this test. The overall difference comparing the within to the outward communication efficiency for 'all organisations'[198], E(.) compared to E(.'), is indeed higher than for the equivalent measures in hypothesis 1 on functional labels. Within organisations the efficiency is 10 decimal points higher than the between measure. At the individual organisation levels No.10 has a very high score for its within measure but a score that falls even beneath the analysts at only 17% for the communication efficiency measure to outsiders. DWP's figure for internal relations is almost exactly the same as the figure for all relations (seen in the table as 'global') but is still lower for outsiders. This probably

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[198] Labelled as 'all organi' in the table.

reflects the fact that many of the 'foot-soldiers' of the policy making process are in DWP and they tend to be connected less broadly, keeping relations with only those that are direct contacts in their own areas of the policy. This topic will be covered more under hypothesis 4 on centrality.

The French statistics in the corresponding section of Table 9.2 support the rejection of hypothesis 2 even more strongly. The efficiency measure for within groups is almost twice that of outwards links. Individual groups all show evidence of fairly strong clique-likeness. While for some this may well be due to the small numbers involved and attention must be drawn to the imputation of data, there are still cases that are robust and strongly demonstrate the cohesiveness of the groupings in these terms. For example the unions were well covered by the collected data and are a good sized group that shows a clique-likeness which reflects the overall result by having an efficiency of communication measure within the union-labelled actors twice that of the within to outside communications at 41% and 20% respectively. The Ministry of Social Affairs shows as much clique-likeness under the right as the left and the only significant organisation that does not display the clear clique-likeness is the PM's office, the Matignon, under Raffarin ('matignon dr').

Somewhat against expectations the structural equivalence measures are enshrined in the labelling by organisation in the UK. At the top right of the Table 9.1 there are quite clear differences in the normalised measure for the overall value and for the individual groups. The marked structural content in the No. 10 label is reflected here, however we can see that the Treasury does not show so marked a similarity in the structural relation patterns of its members as it does in its clique-likeness as a grouping. The French data for the dissimilarities show that the structural information in the groupings is not as

strong as the corresponding clique data, and so while this still supports rejection of the hypothesis it is less convincing than the clique data, which is what we expected.

If we were pursuing a route of exploratory data analysis rather than testing our hypotheses we could find many other interesting features in these tables, this can however be somewhat dangerous as any network can show features that are interesting when exploring a number of measures. It is safest to have hypothesised in advance and to test. This avoids committing the easy error, of statistics in general and networks in particular, of choosing what is interesting in order to draw conclusions while ignoring the much more substantial and convincing mass of 'uninteresting' data. Table 9.2 for France, however, does show the measures for groupings of those who are party-aligned in order to demonstrate the source of some of the effects when the functional grouping was broken down into party-functional grouping.

## Hypothesis 3 analysis

The original tests for small-world networks were developed by Watts and Strogatz (1998) who noted that in the move from a regular to a random network, as the degree of randomness increased that the characteristic path length of the network fell away rapidly but there was a region where the cliquishness of the network was almost as high as in the regular network. The measurement of small worlds was therefore based on the two properties of characteristic path length and cliquishness through the clustering coefficient. The small world requires that the characteristic path length is similar to that of the random network, although it will always be bigger it is still almost as short as the random network. The other property is that the clustering coefficient is much larger than in the random network showing that the locality measure has moved far away from that

**Table 9.3: Marchiori and Latora network measures showing small world test statistics for UK and France data**

| n D(.) | Dglob reg | Dglob | Dglob rand | Dloc reg | Dloc | Dloc rand |
|---|---|---|---|---|---|---|
| 36 UK | 4.82 | 3.75 | 3.29 | 2.54 | 2.61 | 11.54 |
| 51 FR | 8.75 | 5.29 | 4.97 | 3.32 | 5.18 | 21.4 |

| E(.) | Dglob reg | Dglob | Dglob rand | Dloc reg | Dloc | Dloc rand |
|---|---|---|---|---|---|---|
| UK | 0.21 | 0.27 | 0.30 | 0.39 | 0.38 | 0.09 |
| FR | 0.11 | 0.19 | 0.20 | 0.30 | 0.19 | 0.05 |

| norm'd E(.) | Dglob reg | Dglob | Dglob rand | Dloc reg | Dloc | Dloc rand |
|---|---|---|---|---|---|---|
| UK | 0.42 | 0.53 | 0.61 | 0.79 | 0.77 | 0.17 |
| FR | 0.23 | 0.38 | 0.4 | 0.6 | 0.39 | 0.09 |

Note 1: Calculated from the reverse score matrix where 5 maps to 1 and 1 maps to 5
Note 2: the UK regular matrix was based on average edge length of 2 (in original it is 2.245) and on a range of 3 (degree 6) where average degree in the original network is 6.25
Note 3: the French regular matrix is based on averaged figure for regular matrices for all 4 of the combinations of edge length 2 and 3 and range 2 and 3. The figures for the original network are average edge length 2.47 and degree 5.2 implying range 2.6
Note 3: normalised E(.) based on a fully connected graph edge lengths=2

seen in random graphs and more towards that of the regular graph. Caution is needed, however, as it can be shown that there is limited scope for observing this effect in networks of the size and type that we are considering (Astill 2004b).

The data that we have is metric, that is to say that it contains information on the strength as well as the existence of a link whilst the network to be used in the Watts and Strogatz version of the small-world analysis is a non-directed, non-valued graph so the strengths shown in the original data are no longer relevant. We could however create the topological network by taking all contacts, from strongest to weakest and converting them to a link but this is as arbitrary as taking only the strongest. To try and remove suspicion that the small-world property might change depending on the strength of tie that is treated as the cut-off point, the test can be done for all levels and then repeated

**Figure 9.3: Marchiori and Latora network measures showing small world test statistics for UK and France data**
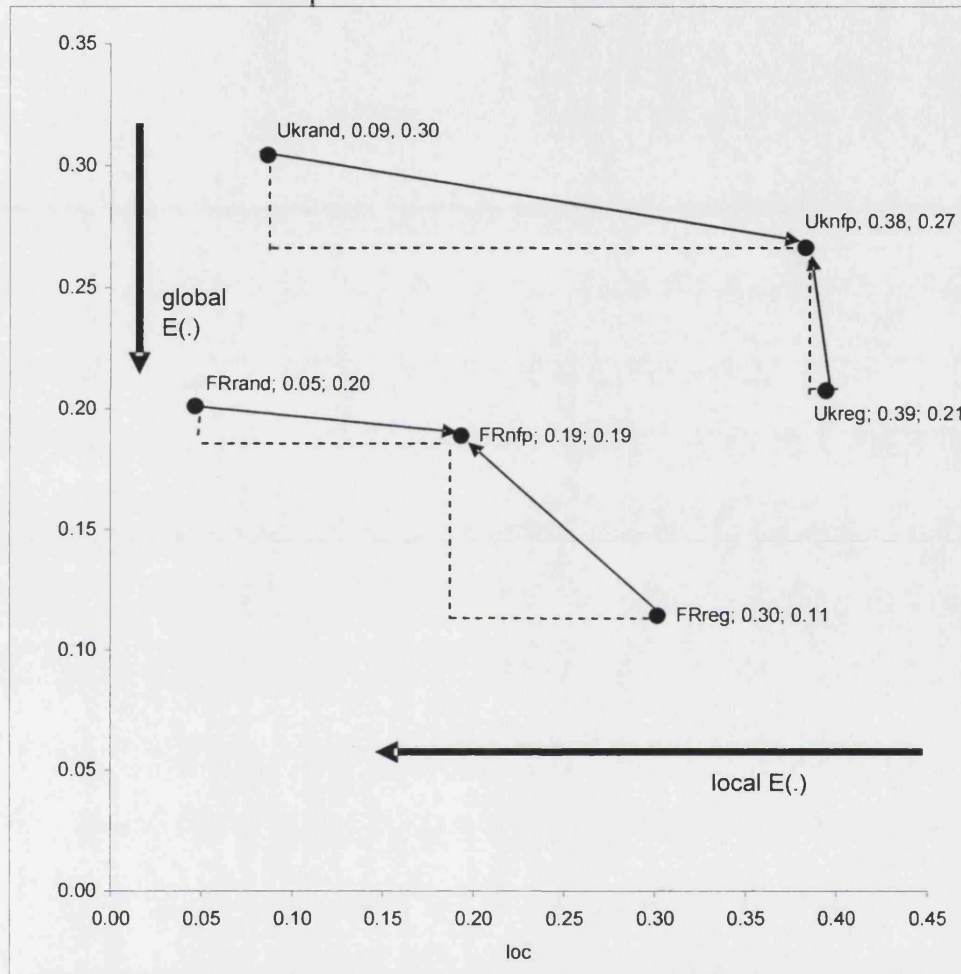


increasing the threshold until the final network of only those who have the strongest relations.[199] There is however a later method of testing for small worlds that draws on the statistics and the explanations that go with them that have already been presented on the Marchiori and Latora (2000) path lengths and global efficiency. These methods are fundamental building blocks towards testing for the small world in a metric network. The other statistic that is needed is the local efficiency measure for the neighbourhood of each actor. This measure takes the subgroup of all the 1-step neighbours of a given actor

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[199] Such an exercise is carried out and the results compared to the method used by this thesis in Astill (2004b).

and looks at the path-length and efficiency statistic for that subgroup. The calculations for path length, D(.), and efficiency, E(.), are exactly the same as seen above but they have to be calculated for the neighbourhood subgroup of every actor in the network. This procedure results in a vector containing a value associated with each actor which is then averaged to give an average local measure. Once again a special program had to be written to calculate this statistic which is given as Listing 2 in Appendix 4.

Marchiori and Latora's (2001) method is founded upon the realisation that the small world property can be seen as efficiency on both local and global scale and they developed an alternative to the Watts and Strogatz method to apply small world network testing directly to metrical networks as well as topological ones. When we take into account the values on the links (in this work, the distance transform) it is intuitive that this move to a metrical network has an effect on the existence of cliques because groups may not only be well connected, but have stronger connections within themselves and therefore be tighter. The metric measure also affects the overall path lengths in the network as discussed above in the section on cliques. The use of the Marchiori and Latora method uses this extra information and relates it to global and local efficiency and how we can better determine whether the network is small world.

In their two papers Marchiori and Latora approach the small-world problem by determining what it is that happens in small worlds that gives rise to their properties. Their conclusion is that propagation of information across the network is the key and to capture this they propose the measure of connectivity length, which we touched on earlier, that is *D(G)* where G is a metrical graph, to be harmonic mean of all path lengths between all vertices. Measured at a global level this measure is analogous to the path length in W+S. The average *D(G)* for the sub-graphs that are the neighbours of each

vertex (but not including the vertex itself) corresponds to the reciprocal of W+S's clustering coefficient (Marchiori and Latora 2000). As previously, the reciprocal of global path length, $D(G)$, is defined as $E(G)$, the efficiency of G, and with this measure a small world graph can be defined as having high E(.) at both the global and local level and so be very efficient at both local and global communication (Latora and Marchiori 2001). Calculating these measures using the Floyd-Warshall algorithm on the full matrix and various subgraphs has already been discussed. Touched upon more briefly earlier was the need to randomise completely the full graph while keeping the same distribution of edge strengths. A program to do this is given in Appendix 4 as Fragment 1. The measures also need to be calculated for the regular graph,[200] which is taken to have an edge length equal to the average edge length and the closest integer number to the average in the real graph is used for the number of links from each vertex.[201] The comparison to the fully connected graph, used for normalising the measures, has two potential choices of comparison: one with an edge length equal to the average edge length and the other with an edge length of one, representing the best possible communication between vertices.

Table 9.3 is arranged so that the communication efficiency increases towards the centre of the chart where the random network is the more efficient globally and the regular network is more efficient locally. Reading from the efficiency measures, E(.) normalised to compare to a fully connected network, we see that at the global level the UK network is closer in terms of propagation of information to the random network than the regular, at 53% of the efficiency of a completely connected network. There is not, however, much room in terms of gain with the particular network we have, between the

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[200] See Figure 7.1 in Chapter 7.

[201] A program to create such a matrix is given in Appendix 4 Listing 3.

random and the regular versions.[202] We can see as well that the local efficiency, analogous to the clustering in W+S, reaches 77% of the efficiency of the fully connected graph whereas the regular graph, by definition highly clustered, reaches 79%. What we see for the UK is a network that is almost as globally efficient as it can be in terms of local communication yet which still comes much closer to the efficient random graph in terms of its global communications than it does to the regular graph. This seems to indicate considerable small world property for a network of this size and type.

The French network contrasts with the UK in that it at the global level it is hardly less efficient at all than the random graph, this being despite the fact that it still remains closer to the high local efficiency of the regular graph than towards the poor efficiency that would be expected by the closeness at the global level to the random network. However, the French NFP is only *closer*, not *very close* to the local efficiency of the regular network. It has move 11 decimal points along the measure from the regular to random and there are 14 points of the measure remaining, it has not reached the halfway point, but it is not far away. While the French NFP, like the UK, is not strongly displaying the small world characteristics there are small world

**Table 9.4 The centrality measures and ranks for the UK NFP**

| name | F-W-gd | rank |
| --- | --- | --- |
| DarlingA(i) | 2.7 | 1 |
| MillibandE | 2.7 | 2 |
| BrownG(i) | 2.9 | 3 |
| NewmanC | 3.1 | 4 |
| LindsellE(i) | 3.3 | 5 |
| CoulingN | 3.5 | 6 |
| MacPhersonN | 3.5 | 6 |
| BallsE | 3.6 | 8 |
| AstillS | 3.7 | 9 |
| JohnstonE(i) | 3.7 | 10 |
| CockettN | 4.0 | 11 |
| FeketeM | 4.1 | 12 |
| GrayP | 4.3 | 13 |
| PateC | 4.4 | 14 |
| WardD | 4.6 | 15 |
| SearleP | 4.7 | 16 |
| BettsP(i) | 4.7 | 16 |
| RogersB(i) | 4.9 | 18 |
| WoodS | 4.9 | 18 |
| HeywoodJ(i) | 5.2 | 20 |
| EatockD | 5.3 | 21 |
| HolgateN(i) | 5.3 | 22 |
| KellyK(i) | 5.4 | 23 |
| WilliamsM(i) | 5.6 | 24 |
| PhippsJ | 5.6 | 25 |
| MacDonaldJ | 5.6 | 25 |
| FarrellC | 5.7 | 27 |
| BlairT(i) | 6.1 | 28 |
| MillibandD(i) | 6.1 | 29 |
| HornibrookB | 6.2 | 30 |
| MallickN(i) | 6.6 | 31 |
| McCartneyI(i) | 6.9 | 32 |
| ReynoldsH(i) | 6.9 | 32 |
| WakelyR(i) | 6.9 | 32 |
| OppenheimC | 8.1 | 35 |
| BallJ | 8.4 | 36 |

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[202] This, as we mentioned before, can be shown through simulation techniques to be a problem with graphs of the type and size that we have.

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properties evident. Being so very efficient globally would normally mean a massive trade-off in efficiency on the local scale that is not seen in this case.

Figure 9.3, above, shows in a graphical representation how far the networks are from the extremes of Marchiori and Latora global and local efficiency measures (the random and regular versions respectively) that are used to test for small worlds.

## Hypothesis 4 analysis

The hypothesis 4 analysis tests for correlation between centrality and other endogenous actor attributes to find if there is a relationship. For the age and grade actor attributes the rank test is used as there is no reason to believe, in our hypotheses, that there is correlation between the actual age or hierarchical grade of an actor and their centrality measure (which is purely comparative between actors in the NFP and has no exterior meaning), only that there could be correlation between

*Table 9.5 The centrality measures and ranks for the French NFP*

| name | F-W-gd | rank |
|---|---|---|
| ToulisseJM | 4.1 | 1 |
| FillonF(i) | 4.6 | 2 |
| FaugereJP(i) | 4.8 | 3 |
| CherequeF(i) | 4.9 | 4 |
| le DuigouJC | 4.9 | 4 |
| RigaudiatJ | 5.3 | 6 |
| MeyeurP | 5.3 | 7 |
| CirelliJF(i) | 5.3 | 8 |
| RaffarinJP(i) | 5.4 | 9 |
| PaoliniJ | 5.5 | 10 |
| SarkozyG(i) | 5.9 | 11 |
| TaupinB | 6.0 | 12 |
| MorgensternS | 6.1 | 13 |
| CreysselJ | 6.2 | 14 |
| DevysC(i) | 6.2 | 15 |
| ChiracJ(i) | 6.3 | 16 |
| ChertierJD(i) | 6.3 | 17 |
| SeillereEA(i) | 6.4 | 18 |
| KesslerD(i) | 6.4 | 19 |
| BasP(i) | 6.5 | 20 |
| CharpinJM(i) | 6.5 | 21 |
| DelevoyeJP(i) | 6.5 | 21 |
| JospinL(i) | 6.5 | 23 |
| MarcelD(i) | 6.6 | 24 |
| AmbielD(i) | 6.7 | 25 |
| LegrosF | 6.8 | 26 |
| Carrere-GéeMC(i) | 6.9 | 27 |
| QuintinAF(i) | 7.0 | 28 |
| BarrotJ(i) | 7.0 | 29 |
| BrasPL | 7.1 | 30 |
| CaïlaP(i) | 7.1 | 31 |
| MuetP(i) | 7.1 | 31 |
| AubryM(i) | 7.1 | 33 |
| DevyB(i) | 7.3 | 34 |
| RocchiJF(i) | 7.3 | 35 |
| Strauss-KahnD(i) | 7.3 | 35 |
| DeroussenJL | 7.3 | 37 |
| Pisani-FerryJ(i) | 7.4 | 38 |
| Salat-BarouxF(i) | 7.4 | 39 |
| el KarouiH(i) | 7.4 | 40 |
| LhostisA(i) | 7.7 | 41 |
| PechT | 7.9 | 42 |
| GrimaldiS(i) | 7.9 | 43 |
| ChastelX(i) | 8.0 | 44 |
| LevyM(i) | 8.0 | 45 |
| SoubieR(i) | 8.0 | 46 |
| DavanneO(i) | 8.4 | 47 |
| GayssotJ-L(i) | 8.5 | 48 |
| Fulachier(i) | 8.9 | 49 |
| MacquartB(i) | 9.1 | 50 |
| BertrandX | 9.8 | 51 |

only that there could be correlation between

where the actor appears in a ranked list of age or hierarchical grade and there position in a centrality ranking. For correlation between the variables rather than the ranks to be

used both variables must come from known and comparable distributions: the method

we will use is non-parametric and hence gives a distribution free statistical test. For the

correlation between the involvement in different stages of the policy process and the

centrality measure, the hypothesis concerns a categorical variable that is assigned a

numerical value according to the assumed importance of that stage in the process and so

a hypothesis of differing mean centrality measure for these groups is used. This tests to

see if there are significant differences in the mean centrality within each group of actors

representing the different stages of the policy process.

## The centrality measures

There are many different measures of centrality in network analysis, a summary of

these can be found in Knoke and Kuklinski (1982) and a slightly different approach

leading towards the proposition of a new centrality measure based on the

communication efficiency measures that we have used in the tests above can be found in

Latora and Marchiori (2004). The choice of which centrality measure is the most

appropriate is a complex one and in the absence of further work examining the

differences between these measures and the implications for NFPs it has been decided to

make and uncontroversial choice and to select the 'closeness' centrality measure and to calculate it by using the Floyd-Warshall geodesics averages for each node already calculated for the other tests.[203]

*Table 9.6: Critical values of the Student's t distribution*

|  | df | p=0.5% | p=1% | p=5% |
|---|---|---|---|---|
| UK | 36 | 2.72 | 2.43 | 1.69 |
| France | 51 | 2.68 | 2.40 | 1.68 |

Source: Microsoft Excel INVT function

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[203] Work is underway on looking at the implications of centrality measures for political networks in a joint paper between the author and Vito Latora, using data from this thesis and the data collected by John and Cole (1998). Unfortunately the work was not able to be completed before the submission of this thesis but it does not suggest that the movement in ranking of actors between the different centrality measures is likely to greatly change the conclusions of a hypothesis test done in the way seen in this chapter. There are however some noticeable differences in particular actors rankings under different measures which merit deeper investigation into the implications for an NFP.

## The hierarchical grade and age

The allocation of a hierarchical level to actors within the NFP is unexpectedly difficult. There is no good way of comparing, for example, a junior minister in the Department of Work and Pensions in the UK with a senior Special Adviser in the Number 10 policy unit. A similar problem for France concerns, for example, comparing the Secretary General of the Presidency of the Republic with the President of the employers federation MEDEF or the Deputy Director of the Cabinet of the Prime Minister with the Director of the Cabinet of Social Affairs. We could use salaries but this would put the external experts who are Directors of private companies in a stratospheric position compared to a Cabinet Adviser. The final tables of hierarchy are shown in Appendix 5. As we are using a ranking method and because we are looking at the overall strength of correlation our main concern is that the each ranked list seems reasonable, even if there are potentially some points of dispute this would be unlikely to affect our rejection or acceptance of the hypothesis if we choose a strong significance level for the tests.

For the age and grade measures the Spearman's rank correlation test is used. The method simply requires that the variables each be ranked and then the square of the differences between the ranking of each of the actors is calculated, being $d^2$. Then the $\rho$ (rho) statistic, Spearman's rank correlation (also sometimes known as r) is:

$$\rho = 1 - 6 \frac{\sum d^2}{n(n^2 - 1)}$$

Given this statistic, the hypothesis test that $\rho$ is significantly different from zero, which indicates no correlation, can reject the null hypothesis of no correlation in the

rankings. The t-statistic to test against the Student's-t distribution for the appropriate p

values of significance is:

$$t = \rho \sqrt{\frac{n-2}{1-\rho^2}}$$ with degrees of freedom equal to $n$-1.

The critical values that the t statistic must exceed to show significance are in Table

9.6.

As can be seen in Table 9.7, comparing the t-statistic to the values in Table 9.6, the UK hypotheses that there is correlation between the centrality ranking and the age or grade rankings are convincingly rejected. That they should both be rejected is not that much of a surprise, as the check shows that the age rankings are heavily correlated with the grade rankings. The French grade rankings however are strongly

*Table 9.7: Centrality against grade and age rank correlation test statistics and statistics to check rank correlation between age and grade rankings*

| Centrality | ρ | t | n |
|---|---|---|---|
| UK grade | 0.08 | 0.48 | 36 |
| UK age | -0.15 | 0.91 | 36 |
| France grade | 0.43 | 3.35* | 51 |
| France age | 0.03 | 0.19 | 51 |

| check | | | |
|---|---|---|---|
| UK grade-age | 0.63 | 4.78* | 36 |
| FR grade-age | 0.22 | 1.60 | 51 |

Note: * indicates significant at 0.5% level

correlated with the centrality rankings, easily coming inside the 0.5% significance level

while the age ranking does not correlate to the centrality measure. The check of grade

ranking to age ranking shows that the correlation is outside the 5% significance level, but

not far outside.

## The stages of the process

The way that the stages were calculated involves first of all deciding on the division of

the process into the stages and then the assumed importance of those stages. For the

French example the stages are the 'preparation phase', which consists of the Jospin

Government's time in power and the 'legislative' phase, which consists of the Raffarin

Government's reign. We further hypothesise that centrality will be related to these phases in a way that means involvement in both phase implies the highest centrality ranking, the legislative phase alone implies middle ranking and the preparatory phase alone implies the lowest centrality ranking. For the UK the division is similar except that there are the phases outlined in the case study of 'what will achieve our aims?', called policy shaping, and 'how are we going to make that thing happen?', called pre-legislative. Appendix 12 shows which actors were assigned to which stages. The hypothesis is that, as for France, involvement in both tends to imply the highest centrality ranking, then involvement in only policy shaping is next most highly ranked then involvement in pre-legislative alone is the lower centrality.

A simple test was run on the Floyd-Warshall average geodesic measures (representing average path length to all other actors) across all actors within each of the stage groups and these averages were tested for significant differences from each other using a t-test. As the direction of the difference (i.e. which stage is more important than the other) is hypothsesised the t-test is a one tailed test.

The results in Appendix 13 show that for the UK actors that were involved in both stages of the policy process had significantly higher centrality (that is significantly lower average path lengths over the whole network) than those who were involved in either one or other of the stages. There was no significant differences in the centrality measure between being in only the policy shaping phase or only the pre-legislative phase. For the French network being in both phases gives significantly higher centrality than only being involved in the preparatory phase, but there is not significantly different centrality seem between those who were in both phases and those who were involved in the legislative phase alone. The tests also reassuringly triangulate to show a significantly higher

centrality from being involved in the legislative phase compared to the preparatory phase.

## Summary

The hypothesis tests carried out using the NFP approach have produced some interesting and valuable findings. We have convincing evidence at the three levels of hypothesis and interesting material across the three broad questions we wished to cover. The key findings in terms of hypotheses are that NFPs do appear to give us valuable information that we cannot discover from case study work (acceptance of level 1 hypothesis) and an NFP approach is applicable across countries (acceptance of second level hypothesis). We also see that not only is the NFP approach applicable in both the UK and France but that it throws up some convincingly objective comparisons about the NFPs and, hence, the policy process in the two countries. The third level hypotheses had varying success in both the strength of their evidence and the interest that is generated by the findings and the methods used to test them.

The most interesting finding is that connected to the small world property (hypothesis 3); we see that the NFPs for both the UK and France exhibit to some extent the small world property but we discover that they vary in the extent to which it is the global or local communication ability of the NFP that is notable. This tells us about the first broad question we wished to address by revealing that the success of the policy process (i.e. no collapse) in both cases is found alongside a small world network despite the fact that the process itself varied greatly, something reflected in the different character of the small world seen. The fact that NFPs are small world could lead us to hypothesise that an NFP that succeeds in achieving a policy output without collapse may indeed need to be small

world to ensure that the process is possible i.e. that communication <u>has</u> to be effective at both local and global levels. This leads us onto questions of what the process is that allows or incentivises the actors to arrange themselves into such a configuration: it is almost certain that this is not a clear objective of actors. Further techniques could be developed to see which actors contribute most to the 'small-worldness' of the NFP and what characteristics these actors have in terms of the policy process. This is backed up as being a fruitful line of investigation by the finding that the small-worldness is of a different 'flavour' and probably therefore comes from a different source in the UK and in France.

Hypotheses 1 and 2 address three issues: the bare hypothesis that labels correspond to structural measures, the question behind this about whether the language we use in case studies has validity, at least in terms of structure, and the broad question about working methods in an NFP. The hypotheses that propose no structural content are rejected; the labels we use do have at least some structural meaning and clearly they have other content. This is valuable knowledge when conducting case studies as it means that we can assume that functional labels and organisational labels give us a basic understanding of an actor and we can concentrate on seeking out the exceptions to these generalisations and leveraging their explanatory power. Once again, however, the objectivity of the formal analysis raises interesting points about the differences between the two NFPs that were studied. The structural content behind the labels is considerably stronger in France for both hypotheses suggesting that despite the mixed up picture of cross cutting relations that emerges from the French story it is in fact in the UK where cross-cutting communication and a fluidity in structural relations is most apparent in the unfolding of the policy process.

The findings on centrality are perhaps the least exciting, but there is an interesting point in terms of the design of the French part of the study as we discover from the 'stages' testing that the centrality of actors is no different for those that take part only in the legislative phase (Raffarin) than for those who were in both. This effectively relegates the pre-legislative (Jospin) phase to secondary importance in terms of the structural centrality of the actors. Further investigation could suggest that in fact we should only have treated the policy network as consisting of actors that were involved in the second phase and that our boundary condition was inappropriate. Of course, there are many considerations other than the structural ones but it is a direction that deserves some thought. The substantive hypothesis that structural centrality corresponds to exogenous labels is supported as centrality is seen to be related to grade for France (with a convincing reason behind this and interesting differences between the UK and France), however neither country's NFP has a correlation between age and centrality in the network; this perhaps reflects a balancing act whereby older actors may be more central due to their experience and, perhaps seniority (the results were unconvincing for this in the correlations) but, as one interviewee in France pointed out, that the high pressure jobs in the cabinet are 'a game for the younger ones'.[204] The work under this hypothesis contributes to the findings in the case study around the third broad question of who are the important people and why are they important.

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[204] Interview with Frank le Morvan

# X. Conclusions

The NFP concept, the techniques to create networks suitable for analysis and the specific formal analysis methods used to examine the networks have unquestionably demonstrated that NFPs are able to answer questions about the policy process that would otherwise remain entirely unapproachable. We have already seen how NFP analysis shows the low overall leverage of typical labels used in a case study whilst being able to show where these labels have more significant structural content and we saw in the small-worlds analysis a detailed comparison of the communication efficiency of the French and UK networks. Aside from the specific hypotheses proposed, however, the analyses have also revealed hidden details about the policy process as an inherent part of the work.

To illustrate a typical example, this concluding chapter will start with a finding that was observed in both the case study side and the NFP analysis, but which is only verifiable through NFP analysis. One of the interviewees in the French case talks about the policy making implications of 'the network being much larger' in the French case.[205] It is interesting to see how this idea might typically be handled in a case study analysis and how it is handled using the NFP 'toolbox'. How can we understand the number of actors in a policy process[206] to be much bigger or smaller than a comparator? At first, this idea would seem a fairly simple observation that could be drawn from a case study; several interviewees will mention that the policy process involved a larger number of actors than the comparator, it certainly appears that there are more actors being taken account of and this impression is not even complicated to draw from the case studies.

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[205] Interview with Franck le Morvan

[206] I use a neutral formulation here that avoids the trap of using the word 'network' when it has no analytical purpose.

However, the good political scientist is more careful than this and will start to construct in her head a set of criteria by which she could defend this inference if she wished to present it as evidence. Reduction is always a powerful tool in these circumstances and perhaps the political scientist would imagine a very simple decision making process that involved two people and another exactly the same that involved four. How would she establish to her satisfaction from case study evidence that the one was bigger than the other. It cannot be simply that more people are mentioned; it must be that more people are mentioned in the context of having a relationship with others that meets some criteria of having an impact on the emerging policy. We have arrived then at what amounts to a reformulation of the question 'people involved in the policy process'. I am not suggesting that even when the best political scientists are working on case studies that this is done in a fully concious way; it is done in a way more akin to the 'rational' mind of homo-economicus making his utilitarian decisions. However reasoning such as this could be elicited from the political scientist by questioning her after the event. What is notable about the justification is that it reproduces almost exactly the assumptions that *had* to be made going into the NFP analysis. In a nutshell, what the NFP analysis does for us in this relatively easy to compare case is to give us a way of holding exactly the same assumptions constant when examining the two policy processes and thereby facilitating a convincingly objective assessment of the number of actors involved. With the traditional case study approach, even if assumptions were stated, the basis of aggregating the subjective evidence leaves us with a mostly subjective result in contrast to the aggregation in the NFP which uses the subjective views of the interviewees yet leads us through rigorous analysis towards a more objective conclusion. There is a technical reason behind the difference in these two processes which, again, is reliant on

the mathematical truths about networks. Any node in a network is only aware of the local conditions surrounding itself; any inference that is made by the node about the overall network from these local conditions has no guarantee of being accurate.[207] The case study process relies on accumulating local views, which may or may not be accurate while the NFP method relies on using the information to produce a representation of the whole network and then examine that to discover its properties.

Thanks to the formal analysis of the networks we have shown, in Chapter 8, that the French network is indeed bigger having followed exactly the same procedure and having held the assumptions we make exactly the same between cases. This demonstrates the ability of NFP analysis to give added precision compared to the case study approach. Such precision is necessary in making valid claims about outcomes of the policy process that rely on such observations. For example, we may wish to claim that bigger networks correlate with lower probability that the policy process will come to a sustainable decision. If we proceeded from case studies alone to make such a claim we would have the same problem that the theory allied to the Marsh-Rhodes continuum has in making its claims: the tightness or looseness and the size of a network cannot be convincingly derived from case study material. The NFP analysis on the other hand, with its replicable assumptions and method, can convincingly compare such factors as size and tightness or looseness of different NFPs. Thereby it scores over the case study in this vital way when building theory. A difference between the two approaches ability to deal with specific questions is verified and we will now discuss the NFP approach and its comparison to the case study approach further knowing there to be a real difference.

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[207] This is demonstrated in an example about the dangers of AIDS spreading in small-world networks where individuals do not see the change in the network from regular to small world as they observe only their local conditions (which appear the same) yet the disease spreads much more rapidly in the small-world environment. (Watts and Strogatz 1998)

The questions that will be addressed in this concluding chapter are: how did the case-study and the NFP approach compare, how broad is the NFP concept, where does it run into difficulty and where should it go next?

## Comparison of the NFP and case study approaches

Having drawn the strands together from the case study approach in Chapter 4 and having discussed the findings from the NFP approach at the end of the previous chapter we are now in a position to compare the two. Something that is very striking from the first reading of the threads drawn from the case study compared to the NFP approach is that the case study analysis often relies on the actual compared to the potential: the UK Labour party were frustrated that they could not go ahead on two fronts at the same time, the French socialists were not confident of their ability to keep people in line. These are potential scenarios that are then compared to what actually happened. This is possible because of the heuristic and unspoken (as they are largely instinctive) analytical devices used to summarise the evidence in case study. Compare this to the detailed and documented analyses that the NFP approach uses to tie down with precision the implications of what actually did occur in the policy process. Other heuristic devices are evident in the language of the case study – comparisons over time are given without the need to carry out intensive analysis and data collection explicitly for two time periods as would be needed for the NFP, appeals to the broad ideational environment are made to explain where the policy process was heading, institutional factors are linked to actors attitudes and language such as 'rigidity and fluidity' are used without the need to define how we consider these two terms, that must exist on a continuum, to be precisely differentiated.

On the NFP side, however, there are devices that are equally revealing but for the opposite reason of being precise and grounded in what occurred. Where the case study makes an observation on communications concerning the contrast between the French way of talking to non-government actors the NFP analysis is able to offer statistics on the theoretical communication efficiency at both local and global levels in each network that are objectively comparable. Statistics could even be created to compare individuals' communication patterns. According to our test for confirming hypothesis 1 we should be able to make a more valid claim about the policy process output or outcome using this precision than we could with the case study evidence alone. Unfortunately due to the limited scope of two countries, both of which had a more or less successful outcome (the UK more and the French less) this is not as easy as we may have hoped. Confusion may arise at this stage over the dependent and independent variables. It would be nice to claim that the success in the UK network was due to the fact that, as can be seen in Figure 9.3, local communication was highly efficient without a big fall in global efficiency and this meant that the higher priority technical work was efficiently carried out without any major impacts on the global 'bigger picture' discussions. We may wish to claim that thanks to the way the network was organised the policy process succeeded. This creates a problem, however, that we may in fact be seeing evidence of causality running in the other direction: policy processes that require this kind of communication to succeed may form networks that look like this. The same applies to the French case. It may be that it succeeded because the kind of network we see has great global efficiency thereby allowing the various actors the necessary communication without a major sacrifice in small group problem solving or we suggest that, given the policy problem to be dealt with, this is the network that formed. I am convinced that the balance of

probabilities lies with the first causal direction, that the success depends on the network that we see: the chances of forming such efficient networks that just happen to be so for a policy problem appears unlikely. It is almost certain that heuristic rules and historico-institutional precedent mean that certain kinds of networks form and the case study evidence suggests that the networks form irrespective of the particular kind of policy problem that is being addressed. We could test this further by finding counter examples in each country where the opposite needs for global and local communication are implied and see whether the networks and outcomes are the same or not. The NFP approach can test exactly (albeit in the limited scope of structural terms) the relationship between importance in the policy process and hierarchical position while the case study is able to appeal to socio-psychological evidence, such as sensitivity to the pecking order and the differential effect on relationships of having larger or smaller numbers of political advisers. When looking at working methods once more we find that the NFP gives precision and unarguable comparability telling us to what extent different groups of actors work amongst themselves or with others. The case study approach to how the business of policy making went on is to give us the colour and impressions of French Union leaders rushing back and forth, a story about the dogged determination of a UK party having suffered years of opposition finally seeing the chance to have their policies realised and technocrats on both sides of the channel coming up with new ways to let their ministers tweak the policies to please whoever they feel necessary.

To once again verify hypothesis 1 (that NFP analysis reveals results that would not emerge from a traditional case study) we must try to make a claim that is more valid using this evidence than could have been done with the case study evidence alone. Fortunately this is almost inherent in the question in this case. Because we are verifying

that there is undeniable and strong structural information about the NFP within the case study 'language' this means that any claim made from the case study using such generalisations as 'the unions' or 'public servants' or 'the cabinets' is more valid thanks to what we have learnt from our NFP analysis. The method has therefore not only revealed the structural truth that was hidden (and unverifiable) in a case study but it has strengthened the claims that are made from the case studies' 'unstated assumptions' inherent within the language used.

A not unsurprising conclusion is that we do learn a lot from the NFP and that what we do learn is complementary to the kinds of things we learn from the case study. That is not to say at all though that we cannot address the same broad questions with the two techniques, we will however end up with very different answers. Ultimately, however, we can draw on both sides to defend or reject a single hypothesis as the information is merely different not incompatible.

## How broad is the NFP concept

We have seen now that the concept of NFPs is strong in its analytical leverage, but we must consider its breadth of application. We can see that networks have are found all around when, for example, Richardson (2000: 1021) criticises the policy network concept's ability to explain policy change if all that we find out is that the process involved networks at some point 'as surely it always did.' This criticism may be valid when considering the mass of policy network literature, but it is one of the main reasons that at the very start of this thesis I created the new terminology of 'networks that form policy'. The valid criticism of a policy network approach that considers networks to be something that we see or not is transformed by NFPs because within this concept the

important point to realise is that wherever policy is formed there is a network that forms policy. Even the dictator has his network of advisers and informers, our tribal example in Chapter 3 was the sort of place that we would not expect to find sophisticated political analysis and if politics is not about people communicating ideas then it is difficult to imagine what the definition would encompass. The NFP concept then can be seen to cover all types of government across time and territory.

## Many other hypotheses to be tested

The data that has been collected and the analyses that have already been carried out have laid strong and usable paths to the testing of many other hypotheses. Some highly sophisticated work could be done with little more preparation. A good example of this would be to carry out an analysis of the relationships between the functional or organisational subgroups identified in the testing of Hypotheses 1 and 2. Using the path length or efficiency data between and within each of the groups to each of the other groups an examination can be made of the intergroup structures and this could be tested against hypotheses of the roles that we expect these groups to be playing in the policy process. There are hypotheses that are very interesting that we can test without even doing any further work. Baumgartner (1989) states that the core of the policy process in France is made up of specialists who are administrators and representatives of interest groups. Clearly if we simply looked at everyone who was mentioned by interviewees we would find a huge variety of actors – by applying the steps of reducing the network we start to trim out those who while they are named, sometimes by many, did not contribute to the policy according to our definitions. Further questions can be answered about the dominance of the Treasury in UK policy making, the debate over the influence of the young (those in French cabinets and high-powered policy 'wonks' in the UK) compared

to the older (senior civil servants and politicians who have spent years climbing the greasy pole of success) and a whole variety of other questions.

## Problems inherent in the NFP concept

A very real problem with the network analysis that comes to light under the French case study in particular; that an actor need not get involved in the policy network, under the definitions that we use, if they think they will get what they want anyway (Melbeck 1998: 536). As the network analysis does not care about peoples' wishes compared to the outcomes this is entirely off scope. The case study can however reveal exactly this situation: Jacques Chirac has shared policy preferences with his Prime Minister and does not even have to voice his preferences to him, let alone become a central actor in the network. The question is, of course, one of whether without the network perspective, at least, and quite possibly without the NFP analysis that we carried out, would we be aware of the President's very real absence from the policy process in order to be able to even comment on it. We did not raise it in the case study. It only comes to light here when we look to see what we have gained. On the other hand we become aware of MEDEF's refusal to take part in the COR through the case study and this subtlety is lost in the aggregation that produces the NFP.

## Going further

We have looked at the NFP alongside case study but there are other areas of political science that can benefit from an association with the concept. We have already seen that there is a natural link with ideational and evolutionary theory and this three way combination deserves to be tested further to assess its theoretical boundaries. It seems almost obvious that we can explain more by taking two methods that emphasise different

aspects of the policy-making process and combining their insights in an intelligent way. Daugbjerg and Marsh (1998) propose that we use state theory to answer questions about 'Who rules? Why do they rule? How do they rule? In whose interest do they rule?' and although these questions appear to verge somewhat on the metaphysical it is fair to say that in approaching these big questions, rather than the small ones about 'What shape is the network? Is it tight or loose? Is it like this other network?', we must slot our network theory in with something else. Even if we are not feeling metaphysical and wish to leave the pluralists, corporatist and Marxist vendors of state-theory alone we still have to accept that the institutional environment in which the network is operating will affect our conclusions.

> ...agents are located within a structured context, which is provided by both the network and the broader political and social-structural context within which the network operates.

*(Marsh and Smith 2000)*

The NFP concept must exist in a symbiotic relationship with other theory, but its flexibility and ability to introduce an objective element of rigorous analysis should make it a good candidate to work with.

Marsh and Smith (2000) say that 'if we argue that networks affect policy outcomes and, thus, that changes in networks can result in policy change, then we also have to address the question: what leads to network change?' We have not even dared to go dynamic, but the question can still be: what causes the network to be as it is? The points raised when we were considering the findings of the small world analysis considered exactly this point. Does a network have to be a certain way if it is a network that forms policy? Once we start to examine this we also have to start to think about the micro- and macro-pressures that create the network's form. The ability of the network methods to

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switch between actor measures and whole network measures and to see the contributions

of actors to the network and the implications of the network on the actor clearly give us a

very effective way into tackling these questions.

## Other valuable points from the work

One of the first things that emerged unexpectedly from the way in which this study

was approached was the fact that simply by being able to explain to the interviewees that

the study was about the network that created the policy encouraged the vast majority to

focus on the policy making rather than the policy itself in a way that was extremely

beneficial to the investigation. It is often the case that when you go to interview an expert

on, say pension policy, they will be considerably more interested in explaining their

interpretation of the context of a reform and their view on whether the right or wrong

path was taken. The NFP angle, even if it had have been merely a device would have

been valuable as it focussed the interviews on the policy making, prioritised the

consideration of relations with others, highlighted the communality and the individual's

place in the process and, very usefully, encouraged gossip about other members of the

network. While such information in many cases cannot be reproduced, due to ethical

considerations, it did allow a deeper understanding of the subtexts of the policy

environment and made the piecing together of the story a lot easier and hence enhanced

the final integrity of the case study.

## Final thoughts

This thesis asked whether the NFP concept could add something over and above the

traditional case study. The evidence shows that it does. The thesis was never foolish

enough to call into question the basic value of carrying out case studies and this decision

has also been justified. There is one question which is often asked which was avoided in this thesis; the question of 'competing explanations'. Which is better: NFP analyses or case studies? Apart from the somewhat flippant answer that we seemed to get better answers from our case study interviews because we framed them in the context of the NFP research, there is another way to avoid answering which is more encouraging. 'Competing explanations' can only be competing if they are trying to establish exactly the same thing and if the effectiveness with which that thing is established can be measurable in the same way for both of the methods being compared. We have seen some evidence that the two approaches can deal with the same broad areas of enquiry, but to suggest that they are competing explanations would be like assessing the value of a rubber mallet against a sledgehammer. They are good at different things even though they are clearly from the same family.

The strength of adopting the NFP approach alongside the traditional case study is that each method illuminates different aspects of the investigation. It is also good science to create hypotheses from a different source to that which is envisaged to test them; we have seen hypotheses arise from the case study side that are well suited to testing with NFPs and points that were thrown up by the NFP analysis that require us to look at the traditional case study approach to confirm them. Political scientists can, due to the necessity of specialisation, become somewhat ghettoised and perhaps even fearful of the flip side of their discipline. NFPs are a classic case for a catholic approach to investigations in political science.

Perhaps the true conclusion of this thesis is that political scientists of all persuasions should firstly be more clear about exactly what they are doing: what they define and what they are leaving unsaid. Secondly they should be prepared to try something new

alongside what they have always done. I have sympathy with Raab (2001) when he fails

to see why his study on secondary schooling in Scotland from the 1940s to the 1980s has

to be categorised by Marsh and Smith (2000) as being 'anthropological' and '"cultural"

rather than "structural"' (Raab 2001: 553). His point that 'the strategy... does not lie in

pigeon-holing the world in terms of categories like rational choice, culture, structure or

agency...' precedes my final word. I conclude that the stand-alone value of NFPs is very

high, but rather than competing with the case study approach we should recognise that

both are overshadowed by the advantages of using them together. The lesson is that as

political scientists we should, methodologically speaking, try and get out and about more

often.

## Appendix 1. Sample interview script

**NOTE:** This is a fictional example of how an interview might run that was created for guidance, not to follow as a script.

NFP INTERVIEWS: EXAMPLE SCRIPT FOR GUIDANCE

### Intro

The reason that I have asked to interview you is that you have been identified as a key actor in the development of the Pensioner Credit policy in the period before it was presented as legislation – this means that we are concentrating on the period roughly form early 2000 through to November 2001 when the Pensioner Credit bill was given its first reading.

I'm investigating something that I call 'Networks that form policy' looking at configurations of important actors in a comparison of the UK and France. Basically I want to see whether, in these three very different countries, policy making still works in the same way – and in both countries I'm looking at pension policy.

I know that we haven't got much time and I have quite a lot that I want to cover, but I also want to make sure that you are ready to make comments at any time aside from the structured questions that I am going to be asking. Then at the end as well there will be the opportunity to add anything that has occurred to you as we go along. This sort of information is going to be very important to me in assessing the implications of the more structured questionnaire.

I also want to assure you about the confidentiality of the responses that you give. If

you are quoted or your data is used in any way that could be even indirectly associated with you I will if you wish let you know exactly what I am hoping to use and I will ensure that you see it and agree to it first. The only people that will have access to the full information are the examiners of my PhD, who I will make sure are under a confidentiality agreement.

## A

Before we start on the meat of the questions, I need to check and fill in the gaps in your biographical details. This sheet [interviewee biography] contains the information that I will be using to group people various different configurations. A lot of it is already filled in, but I would like to complete the missing sections and check the details that I already have.

## A.I

The first section of questions is purely factual; you'll notice that some of the questions ask about things like your date of birth and career or education. I'm asking these things as I would like to find out whether any of the patterns of relations in the networks that form policy might be related to people forming groups that are explained by this sort of data.

### *A.I.b*

Under the question on current post I'm just interested in the official title of your post and any clarifying details about what it might actually mean.

### *A.I.c-A.I.g*

These next few are fairly straightforward.

### *A.I.h*

Under the education question I'm mainly interested in your highest level of education

and if you went to any of the sort of places that might lead to you meeting former associates; perhaps a famous public school or Oxbridge, or for the French, ENA.

*A.I.i*

And there is the same sort of thing in this question on career history, I'm interested in seeing if people who have worked together or in similar jobs tend to work more closely together.

*A.I.j*

I would like to know how long you had worked in the general policy area of pensions or welfare policy at the end of 2001.

A.II

This next section on the form relies on you making some assessments; I will give you some guidelines, but I don't want to be leading you towards any particular answers. None of them are too complicated, but then again, some of the questions may not be clear straight away what is needed.

*A.II.a*

The first question in this section is about what organisation you would say that you are a part of.

*A.II.b*

Under this question, I would like you to tell me what label you would give yourself regarding the function that you have; the obvious examples of this are a lobbyist, a civil servant, a Minister, a front bench opposition spokesman and so on. What would you say you had as a functional label in this context.

*A.II.c*

Here I want you to try and assess your level of seniority, I'm using the Civil Service

and government as a yardstick. The question tries to take a measure of the size of the organisation that you are part of and the size of your command or area of responsibility. For instance, you might have the responsibilities of a Cabinet Minister or Permanent Secretary of a large department, or maybe more like a Junior Minister or an Assistant Secretary and so on.

*A.II.d*

This question might look at first like the question on 'function' but in fact I'm looking more at how you fulfil this function and the role that you feel that you play. Perhaps, you see yourself as a policy advocate, and advisor or a decision maker. How would you describe your role in the policy process?

*A.II.f*

Finally in this section I would like you to describe your political affiliation in simple terms – it's quite acceptable to say neutral or non-aligned here if that is a true reflection of your position on this policy.

**B**

In the process that resulted in the pensioner Credit policy that went forward in this bill, you will have dealt with a range of different people. Some of them may have provided you with information or you may have provided them with information. You may have discussed policy or exchanged emails and sometimes you will have been involved with others in making definitive decisions that affected the shape of the policy. This may have been in meetings or in making or responding to official submissions.

I would like to go through some of the people that you had dealings with and try to establish the extent to which you interacted with them over the eighteen months or so

that we are covering, from the preparations for the Pensioner Credit consultation document up to the finalisation of the bill.

## B.1

Let's take for example *Actor 1*. I've got three types of interaction that I'm interested in, but I'm happy if you think you would like to add something more. These three types are information receipt/provision, decision taking and generalised discussions.

### *B.1.a*

The first category is probably the simplest so we can start with that. In this category I'm talking about a fairly dry one way movement of information, rather than exchanges of views. Did you this happen with you and *Actor 1*?

### *B.1.a(i)*

[If yes] I'm looking for a measure of the strength of the contact as well, my scale goes from 1 to 5. 1 represents contact rarely and goes up through 2 – now and then, through 3-fairly often, 4 – quite a lot and up to 5 which represents a high level of contact. Just so we can remember which way round the scale goes, I've got them written on this card [card 1: strength scale].

### *B.1.a(ii)*

OK, thanks. The other thing I'm interested in is the way that the contact took place. I would like to split up how much of the contact happened in the four ways written down here [card 2: face-to-face, telephone, informal email, formal written] and give me an idea of how the strength ranks on each of these on the old 1-5 scale. Great.

### *B.1.b*

Right, the next category is pretty clear as well, it relates to the taking of definitive decisions on the policy. We may need to talk around this one a bit, as decision taking

doesn't only cover agreements made in meetings, but it can be a more long drawn out process of submissions and agreements or agreements to redrafts and so on. Do you think that any of your contact with Actor 1 would have fallen into this category [then expand depending on actor and say: did you ever agree to any submissions from them? Did you ever make any decisions that would have gone through on the nod or contribute directly to submissions, etc.]

*B.1.b(i)*

[**If yes**] OK, so there was decision making going on, at what level from the card [or explain the card as above if the answer was no to section A.1] would you rate the decision making contact with *Actor 1*?

*B.1.b(ii)*

And again I'm interested in attaching the same sort of ranking to the different contact types on the card [or explain the card].

*B.1.c*

OK, so that leaves us with the final category of contact, the general discussion of the Pensioner Credit policy: did you have general discussions about the policy with *Actor 1*?

[**If yes**] We've got the levels of contact on the card, what level would you say this contact took place? OK, how would you say this discussion took place? The categories are on the card and we're doing the 1-5 scale again.

[**If no**] OK, under this category I'm not just interested in face to face discussions as such, I'm also interested in whether you had general exchanges maybe by email or telephone or through more formal channels such as submissions, minutes or other written documents. What I'm trying to get at is general contact with an exchange of

views, rather than primarily a one way giving or receiving of information or actual decision taking.

*B.1.d*

That pretty much wraps up actor 1 I'm just left with getting an overall rating for them on the 1-5 scale for how you would summarise your contact.

*B.1.e*

And finally, I would like to know how you would rank your contact with this person outside the policy that we're talking about, let's use the 1-5 scale again. And have you any particular link with that person? For example at the same school, or worked with them previously? OK, thanks.

## B.2

We can press on with the other actors now that we know what we're doing, the cards are there so we should be able to move fairly quickly. If you think that there is anything interesting to add about any of the people we cover or anything you think may be important in trying to understand the network then feel free to mention it at any point.

OK, *Actor 2*.

## B.3 and onwards

This process continues for all the actors already listed.

## B.extras

As you can see I have a limited list here of people that you might have dealt with that was compiled from my research into the policy area and from the responses of some of the other actors. I would like to have a full list of the people that you had dealings with concerning this policy. Can you add other people to this list and then we can quickly do the same exercise for them as well.

# C

We've already covered a lot, but there is a little more of the grind before we talk a little more generally. I have been interviewing several different actors and I am anxious to ensure that the data has no errors in it either of recall or from my interviewing and coding. This means that I have a few questions to ask you about how you see other actors relationships with each other. I want to emphasise that the actors that I'm going to ask about are not significant in who they are. I have tried to randomly select various combinations to give the best double checking that I can, so I'm not trying to catch anyone out!

You'll see that I'm asking a much more restricted set of questions about these third-party links and I'm only going to ask you about the strength of the sort of relation (information, decision making or general) and not go into all the telephone and email business.

## C.x-y

Off we go with a few of these questions about *Actors x and y* and their relationship.

# D

That has wrapped up the detailed questioning about people's relationships and all that is left are a few general questions about the policy making process and about how you view the way that the network operates. In this section, if you think a question doesn't really apply or you have nothing to say, we can always skip quickly onto the ones that you find more relevant. Just say so when you find this happens.

## D.I

### *D.I.a*

Could you tell me if you think that there are any people in the policy making process

for the pensioner credit that you are aware of who hold strongly opposing views to yourself or who you view as being antagonistic.

*D.I.b*

So these actors were/weren't included in the actors we discussed.

*D.I.c*

[Especially if not listed] Could you tell me a little more about where you get your information on opposing views that existed on the Pension Credit policy?

## D.II

This section of questions refers to a fairly subtle effect in policy formation but one that we all know about: it's about people that you didn't have any contact with but who were influential in your thinking about the Pensioner Credit.

*D.II.a*

Could you tell me who, if anyone, was influential in the process, but that you did not have any contact with (or so little that they are not included in your list)?

*D.II.b*

[If given for D.II.a] And with these people, how did you ascertain what their views were when you were working on the policy?

[Clues: through other network actors, media, 'the grapevine']

## D.III

*D.III.a*

Something else I'm interested in is where you think that new ideas tend to arise within the network, are there any particular people or groups of people where that you would tend to think of here?

And how would you say that your relationship tended to be with these?

## D.IV

I asked earlier about the role that you thought you tended to have in the policy making process. I've got a few quick questions about who you think may have performed certain roles in the Pension Credit policy.

*D.IV.a*

In my research I define what finally comes out of the policy process as a tangible output. Can you tell me who you think is responsible for the output in this case and what you consider that output was?

*D.IV.b*

I'm also interested in who may not have necessarily has a hand in producing the output directly, but who you would consider to be key decision makers behind this output.

*D.IV.c*

Some people think that in policy making like this there may be veto points; places where the power exists to say 'no' definitively and change the course of the policy. Are you aware of any points like this?

*D.IV.d*

Something else that I consider to be important is the existence of bottlenecks in the process, where information tends to get stuck as there is only one access point in the network. Are you aware of any issues like this in the process?

*D.IV.e*

And on that topic, although it may not actually happen, or it may, is there anyone who you are aware of that could easily prevent you from having had important knowledge

about the Pensioner Credit. Actors where key information was not available by any other route or means?

## D.V

### *D.V.a*

On this question I know we could spend all day discussing it, but I want to be brief. I'm interested in if, and where, you might have encountered different policy making styles. I'm thinking particularly about brainstorming, , theoretical discussions, evidence based methods or experiments and pilots.

### *D.V.b*

And on a similar theme to the last question, are you aware if there was any policy transfer taking place at all, policy ideas coming from other countries or from other levels of government?

## D.VI

### *D.VI.a*

I don't know whether you think that policy making worked particularly well or not, but what I would like to know is if there were any actors, whether they were in your list or not, who you think it would have been beneficial to the policy making process if you had had more contact with them.

### *D.VI.b*

I've got a fairly broad question, that might provoke a strong response to finish with... Did you find, overall that the structure as it was enabled good policy making or not?

How do you feel it could be changed for the better, particularly in terms of the relationships of key people?

## Appendix 2. UK data schedule

NOTE: This was the data schedule that was set up at the start of the interviewing procedure. Major changes that occurred as the process was underway are marked but some minor changes are not noted. The interviews did not always succeed in gathering all the data in the schedule.

| X | Interview details |
|---|---|
| X.1 | ACTOR CODE |

This is the sequential actor code that is assigned to every actor in the NFP

| X.2 | Date of interview |
|---|---|

The date that the interview took place or was completed if it took place over several days.

| X.3 | Interviewer(s) |
|---|---|
| X.4 | Interview location |

### A.     Interviewee biography

| A.I | Factual details |
|---|---|
| A.I.a | Name |

Full name including appropriate title of the interviewee

| A.I.b | Current Post |
|---|---|

The official title and any further clarifying details about the post or posts that were held by the interviewee during the period.

| A.I.c | Address |
|---|---|

The contact address for the interviewee.

## A.I.d             Telephone

The contact telephone number for the interviewee

## A.I.e             email

The email address of the interviewee

## A.I.f             Preferred method of contact

The method by which the interviewee would prefer to be contacted in future

## A.I.g             DOB

The date of birth of the interviewee

## A.I.h             Education

A summary of the educational establishments and levels of qualifications of the interviewee. Particularly of interest is the highest level attained and whether the interviewee attended any establishments that are well known for networking such as Oxbridge or ENA.

## A.I.i             Career summary

A brief summary of previous postings or organisations for which the interviewee has worked. It essential to get an idea about how widely the interviewee is experienced, or if they have held similar posts for most of their career.

## A.I.j             Length of time in this policy area

This question refers to the broad policy area of pensions or welfare policy.

## A.II             Self assessment -

## A.II.a             Organisation

This is a self assessment by the interviewee of what organisation label they would attach to themselves.

## A.II.b                                                                    Function

This is a self assessment by the interviewee of what functional label they would attach to themselves. Examples should tentatively be given such as civil servant, minister, lobbyist, industry representative, public affairs officer, interest group representative; it essential to give the interviewee a flavour of what is being looked for but not to lead them in the response.

## A.II.c                                                              Seniority/Rank

This is an attempt to get the interviewee to self assess their seniority on some kind of unified measure based on the governmental rankings. The rough categories are:

1. *1: Minister: Permanent Secretary*, where the interviewee is responsible for a broad range of issues in a large organisation, roughly as big as a sizable Government Department

2. *2: Junior Minister: Grade 2/3*, the interviewee is either director level in a smaller organisation or is a deputy to the previous level

3. *3: Policy specialist: senior academic: Grade 5/7*, here the interviewee is at a middle level responsible for a discrete area of policy, perhaps second in command in a smaller organisation

4. *4: Analyst: Assistant economist: interest group rep*, here the interviewee is not the leader in the policy area but is a trusted representative or analyst

5. *5: the field*, all the rest.

## A.II.d                                                                        Role

This is a self assessment of the role that the interviewee sees themselves filling. This

may conceivably be the same as question *A.II.b:function*, but is more likely to be words such as independent analyst, decision maker, policy advocate, advisor, etc.

A.II.e ~~Policy making approach~~ [question deleted]

~~This is to try and get the interviewee to assess their approach to policy making in terms of words such as pragmatist, partisan, analytical, intellectual, realist, etc.~~

A.II.f                                                                        Political affiliation

The interviewee should self assess their political affiliation. An assessment of neutral or non-affiliated is acceptable.

B                                                                                  Actor relations

B.x                                                                    Relations with Actor x

B.x.a                                                  Information provision/receipt relation

This question section refers to a relationship where there is only a receipt or provision of information between the actors and the re is no general discussion or decision making.

B.x.a(i)        Overall strength of information provision/receipt relation

This is to assess an overall level of the relationship of information provision/receipt on a scale of 1-lowest to 5-highest. 1 - contact rarely, 2 – now and then, 3- fairly often, 4 – quite a lot, 5 represents - a high level of contact. This scale is given to the interviewee on card 1.

B.x.a(ii)I  Strength of face-to-face information provision/receipt relation

The strength of face-to-face contact within the overall relationship on the 1-5 scale.

B.x.a(ii)II Strength of telephone call information provision/receipt relation

The strength of contact by telephone calls within the overall relationship on the 1-5 scale.

## B.x.a(ii)III Strength of informal email information provision/receipt relation

The strength of contact by informal emails within the overall relationship on the 1-5 scale.

## B.x.a(ii)IV Strength of formal written information provision/receipt relation

The strength of contact through formal written means within the overall relationship on the 1-5 scale.

**B.x.b**                               Decision making relation

**B.x.b(i)**                  Overall strength of decision making relation

This section measures the strength of the relationship in the field of taking substantive decisions on the policy. It covers agreements made in meetings, the process of submissions and agreements and agreements to redrafts, etc. It also includes the making of any decisions that would have gone through on the nod or contributed directly to submissions, to go and be approved or rejected by decision makers. It is important to realise that decision making can take place in both informal personal situations and in formal disjoint settings.

**B.x.b(ii)I**            Strength of face-to-face decision making relation

**B.x.b(ii)II**           Strength of telephone call decision making relation

**B.x.b(ii)III**         Strength of informal email decision making relation

**B.x.b(ii)IV**         Strength of formal written decision making relation

**B.x.c**                               General contact relation

**B.x.c(i)**                  Overall strength of general contact relation

The general contact relation covers all other contact on the substantive policy issue. This section covers not only face to face discussions as such, but also general exchanges by email, telephone or more formal channels such as submissions, minutes or other

written documents. It represents general contact with an exchange of views, rather than primarily a one way giving or receiving of information or actual decision taking.

| | |
|---|---|
| B.x.c(ii)I | Strength of face-to-face general contact relation |
| B.x.c(ii)II | Strength of telephone call general contact relation |
| B.x.c(ii)III | Strength of informal email general contact relation |
| B.x.c(ii)IV | Strength of formal written general contact relation |
| B.x.d | Overall contact rating for Actor x |

This is to ascertain the overall summary strength of the relationship across all manner of relationship purposes and methods on the 1-5 scale.

| | |
|---|---|
| B.x.e | Strength of relationship outside the policy area |

Establishes the strength of the relationship with *Actor x* outside the limits of the substantive policy issue. It is measured on the same 1-5 scale.

| | |
|---|---|
| C | Third party relations |
| C.x-y | Relations between Actors x and y |

These questions are to cross check the data provided by other actors on their relationships. The questions ask the same questions as the interviewee is asked about their own relations, but does not cover the means of communication.

| | |
|---|---|
| C.x-y.a | Information provision/receipt relation |
| C.x-y.a(i) | Overall strength of information provision/receipt relation |
| C.x-y.b | Decision making relation |
| C.x-y.b(i) | Overall strength of decision making relation |
| C.x-y.c | General contact relation |
| C.x-y.c(i) | Overall strength of general contact relation |
| C.x-y.d | Overall contact rating for Actor x |
| C.x-y.e | Strength of relationship outside the policy area |
| D | Additional questions |

These additional questions do not form part of the formal quantitative dataset but it is

important that they are asked if there is time. They should be open ended and are

expected to be free form in response and to provoke wider discussion of policy making

issues.

**D.I** **Opposing views and antagonistic contacts**

**D.I.a** **Identification of antagonistic actors**

The interviewee should identify any actors in the policy area where antagonism or

strongly opposing views exist.

**D.I.b** **Were they included**

This question can be coded from the previous answer and is a yes/no as to whether the

actors identified above were included in the actors identified by the interviewee in

section B.

**D.I.c** **Source of information on opposing views**

Especially if antagonistic or opposing views are not included in the section B list of

contacts, to find where the interviewee gets information on the opposing views that exist

concerning the policy.

**D.II** **Non contact power**

**D.II.a** **Effects from people that you do not have contact with**

To ascertain whether there are people involved in the policy area with whom the

interviewee has no contact, but who still influence the interviewee.

**D.II.b How do you assess these effects and get information about views**

As a follow up to question D.II.a, this is to find out what route the information takes

from those who are influential but are not directly in contact. Possibilities here include

not only the network itself, but the media or 'grapevines'.

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**D.III** New ideas

**D.III.a** Sources of new ideas/ information

The interviewee should point out, if possible, what are the main sources in the network (or outside) of new ideas in the policy area.

**D.III.b** Comments on the relations with these sources

This is a follow up question to ascertain the nature of the relationship that the interviewee has with the sources identified in D.II.a.

**D.IV** System roles

**D.IV.a** Who creates the 'tangible output'?

The interviewee should identify the actor (or sub-group) in the network that produces the 'tangible policy output' and to describe what they see this output as being.

**D.IV.b** Who does not produce but is a key decision taker?

To establish where the interviewee sees the main decision making function as being in this policy area.

**D.IV.c** Veto points

Asks the interviewee to identify where they think there may be veto points in the policy process.

**D.IV.d** Bottlenecks

Asks the interviewee whether they are aware of any information bottlenecks in the policy process.

**D.IV.e** Who can limit information to interviewee

Even if the interviewee is not aware of any actual bottlenecks, they may be aware of actors who could potentially limit their access to information.

**D.V**                                           **Policy making issues**

**D.V.a**          **What styles does the interviewee encounter and where**

To identify where the interviewee encounters different policy making styles such as brainstorming, evidence based methods, theoretical discussions, experimental (trials, pilots), etc.

**D.V.b**                                    **Is there any policy transfer?**

Is the interviewee aware of any policy transfer routes form other countries or levels of government in the policy area.

**D.V.c**          **How the interviewee sees the genesis of this policy**

The interviewee should give a very brief summary of how they see the policy as progressing from conception to proposed legislation.

**D.VI**                                        **Normative questions**

**D.VI.a**          **Actors with whom interviewee should have more contact**

A list of actors whom the interviewee feels that they ought to have more contact with in the interests of achieving their policy aims.

**D.VI.b**                                  **Is the structure enabling?**

Does the interviewee feel that the existing structure and type of policy making is good for their policy aims? How do they feel it could be changed?

# Appendix 3. The Floyd-Warshall algorithm

The Floyd-Warshall algorithm is a solution for finding all the shortest paths from every vertex to every other vertex in a metric network. This involves an iterative procedure which searches in a time that is equivalent to the most efficient algorithm (Gosper 1998).

The algorithm presented by Gosper (1998) below was converted into the form seen in the C++ programs in Appendices ???

The Floyd-Warshall algorithm for matrix $W$:

$$n = \text{rows}(W)$$
$$D^{(0)} = W$$
$$\text{for } k = 1 \text{ to } n$$
$$\quad \text{for } i = 1 \text{ to } n$$
$$\quad\quad \text{for } j = 1 \text{ to } n$$
$$\quad\quad\quad d_{ij}^{(k)} = \min(d_{ij}^{(k-1)}, d_{ik}^{(k-1)}, d_{kj}^{(k-1)})$$
$$\text{return } D^{(n)}$$

# Appendix 4. The C++ programs

**Listing 1:** Program for calculating all shortest path lengths (otherwise known as Dglob) using the Floyd-Warshall algorithm

```cpp
#include <iostream.h>  // defines cout/cin
#include <fstream.h>   // needed for output to files

#include "TwoDIntArray.h" // library function for handling matrices

int main(){

char filename[20];

cout << "Enter input file name (20 chars max): ";
cin >> filename;

ifstream file_in(filename);  // create input stream

int n;
int i,j,k;


// Read n in
//========================================================
file_in >> n;

// Construct matrices
//========================================================
TwoDIntArray mat(n,n);
TwoDIntArray shortL(n,n);

// Read matrix in
//========================================================

for (j=0;j<n;j++)
     {
     for (i=0;i<n;i++)
          {file_in >> mat(i, j);}
     }
file_in.close();

// Floyd-Warshall Algorithm function
// ((i, k) + (k, j)) = Path through k
// (i, j) = Path not through k
//=

for (j=0;j<n;j++)
     {
     for (i=0;i<n;i++)
          {
          if (i!=j && mat(i,j)==0)
               {shortL (i, j)=9999999;}
          else
               {shortL (i, j) = mat(i, j);}
          }
     }

cout << "orginal matrix" << endl;
for (j=0;j<n;j++)
     {
     for (i=0;i<n;i++)
          {cout << shortL(i, j) << " ";}
     cout << endl;
     }
cout << "iterations" << endl;

int DistAdder;
for (k=0; k<n; k++)
     {
     for (i=0; i<n; i++)
          {
          for (j=0; j<n; j++)
```

```
                    {
                    DistAdder = shortL(i, k) + shortL(k, j);
                    if( DistAdder < shortL(i, j))
                            {
                            shortL(i, j) = DistAdder;        // Update distance matrix
                            }
                    }
            }
    }


float sum_recipr_dglob;
sum_recipr_dglob=0;
cout << "shortest paths" << endl;
for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {
                cout << shortL(i, j) << " ";
                if (i!=j)
                        {sum_recipr_dglob=sum_recipr_dglob+(1/shortL(i,j));}
                }
        cout << endl;
        }

float dglob;
dglob=n*(n-1)/sum_recipr_dglob;

cout << endl << "dglob=" << dglob <<endl;


// output section
//

char ofilename[20];    //

cout << "Enter output file name (20 chars max): ";
cin >> ofilename;

ofstream file_out(ofilename);  // create output stream; call it file_out


file_out << "shortest paths" << endl;
for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {file_out << shortL(i, j) << " ";}
        file_out << endl;
        }

file_out.close();    // close output stream

return 0;
}
```

**Fragment 1:** Code fragment used in programs that need multiple randomised versions of a network

```
#include <iostream.h>  // defines cout/cin
#include <fstream.h>   // needed for output to files

#include "TwoDIntArray.h" // library function for handling matrices

int main(){

char filename[20];

cout << "Enter input file name (20 chars max): ";
cin >> filename;

ifstream file_in(filename);  // create input stream

int n;
int i,j,k;
```

```
// Read n in
//===================================================================
file_in >> n;

// Construct matrices
//===================================================================
TwoDIntArray mat(n,n);
TwoDIntArray mat_rand(n,n);
TwoDIntArray shortL(n,n);

// Read matrix in
//===================================================================

for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {file_in >> mat(i, j);}
        }
file_in.close();

//input random seed here
int seed;
cout << "Enter random seed: ";
cin >> seed;
srand(seed);

// loop main repetitions here
int reps, repcount;
cout << "Enter repetitions required: ";
cin >> reps;
float sum_dglob;
sum_dglob=0;
float sum_dloc;
sum_dloc=0;
float av_dglob, av_dloc;

for (repcount=1;repcount<=reps;repcount++)
        {

// make empty matrix
        for (j=0;j<n;j++)
                {
                for (i=0;i<n;i++)
                        {
                        mat_rand(i,j)=9999;
                        if (i==j) {mat_rand(i,j)=0;}
                        }
                }

// Randomise symmetrically


double r;
int irand, jrand;

        for (j=0;j<n;j++)
                {
                for (i=j+1;i<n;i++)
                        {
                        do
                                {
                                r = ( (double)rand() / (double)(RAND_MAX+1) );
                                irand = (r * n);
                                r = ( (double)rand() / (double)(RAND_MAX+1) );
                                jrand = (r * n);
                                }
                        while (irand==jrand || mat_rand(irand,jrand)!=9999);
                        rand(irand,jrand)=mat(i,j);
                        mat_rand(jrand,irand)=mat(i,j);
                        }
                }

// do the calcs

-----HERE GOES THE CALCULATION CODE (e.g. The code from Program 1)
```

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```
}
// Summary statistics output over all repetitions
av_dglob=sum_dglob/reps;
av_dloc=sum_dloc/reps;
cout << endl << "av dglob=" << av_dglob << "   av dloc=" << av_dloc << endl;

return 0;

}
```

## Listing 2: Program for calculating all shortest path lengths (otherwise known as Dglob) and the local efficiency of each nodes 1-step neighbour subgroup (known as Dloc)

```
#include <iostream.h>   // defines cout/cin
#include <fstream.h>    // needed for output to files

#include "TwoDIntArray.h" // library class for handling matrices


TwoDIntArray FloydWarshall(TwoDIntArray[],TwoDIntArray[],int[]);

int main(){
char filename[20];

cout << "Enter input file name (20 chars max): ";
cin >> filename;



ifstream file_in(filename);  // create input stream

int n;
int i,j,k;


// Read n in
//==========================================================
file_in >> n;

// Construct matrices
//==========================================================
TwoDIntArray mat(n,n);
TwoDIntArray shortL(n,n);

// Read matrix in
//==========================================================
for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {file_in >> mat(i, j);}
        }
file_in.close();

// Floyd-Warshall Algorithm function

// prepare intial iteration: shortL(0)
for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {
                if (i!=j && mat(i,j)==0)
                        {shortL (i, j)=9999999;}
                else
                        {shortL (i, j) = mat(i, j);}
```

```
                      }
              }

// output original matrix (not required)
//cout << "orginal matrix" << endl;
//for (j=0;j<n;j++)
//      {
//      for (i=0;i<n;i++)
//              {
//              cout << shortL(i, j) << " ";
//              }
//cout << endl;
//      }
//cout << "iterations" << endl;

// the algorithm
int DistAdder;
for (k=0; k<n; k++)
        {
        for (i=0; i<n; i++)
                {
                for (j=0; j<n; j++)
                        {
                        DistAdder = shortL(i, k) + shortL(k, j);
                        if( DistAdder < shortL(i, j))
                                {
                                shortL(i, j) = DistAdder;        // Update distance matrix
                                }
                        }
                }
        }


// calculation of the measure from Marchiori and Latora
float sum_recipr_dglob;
float tmp;
sum_recipr_dglob=0;
//cout << "shortest paths" << endl;

for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {
//              cout << shortL(i, j) << " ";
                if (i!=j)
                        {
                        tmp=shortL(i,j);
                        sum_recipr_dglob=sum_recipr_dglob+(1/tmp);
                        }
                }
//      cout << endl;
        }

float dglob;
dglob=n*(n-1)/sum_recipr_dglob;

cout << endl << "dglob=" << dglob << endl;


//calc the set of G(loc)
float gloc[50];         // array containing the Gloc values
int loc_l_ind[50];      //index for the local subgraph containing the member nodes
int loc_n;              // the size of the local subgraph around vertex i (not including
i)

TwoDIntArray loc_l (n, n);
TwoDIntArray loc_shortL (n, n);

// prepare index list of neighbours (loc_l_ind) and count them (loc_n)

for (i=0;i<n;i++)       // for i loop goes through each actor to get gloc[i]
        {
//      cout << "for subgraph of vertex i=" << i << endl << "neighbours: ";
        loc_n=0;
        for (j=0;j<n;j++)
                {
                if (mat(i,j)>0 && mat(i,j)<9999)
```

```
//                   {
//                   cout << j <<",";
                     loc_l_ind[loc_n]=j;
                     loc_n=loc_n+1;
                     }
//          }
//      cout << endl <<"    loc_n=" << loc_n << endl;

        if (loc_n<2)              // if only 1 vertex or none in the subgraph weird things
happen.
                {gloc[i]=9999999;}// I ignore these in totting up the Glocal - see below
        else
                {
// prepare local subgraph matrix
                int s,t;
                for (s=0;s<loc_n;s++)
                        {
                        loc_l(s,s)=0;
                        for (t=s+1;t<loc_n;t++)
                                {
                                loc_l(s,t)=mat(loc_l_ind[s],loc_l_ind[t]);
                                loc_l(t,s)=mat(loc_l_ind[t],loc_l_ind[s]);
                                }
                        }
// Floyd-Warshall Algorithm function

// prepare intial iteration: shortL(0)
                for (t=0;t<loc_n;t++)
                        {
                        for (s=0;s<loc_n;s++)
                                {
                                if (s!=t && loc_l(s,t)==0)
                                        {loc_shortL (s, t)=9999999;}
                                else
                                        {loc_shortL (s, t) = loc_l(s, t);}
                                }
                        }

// the algorithm
                for (k=0; k<loc_n; k++)
                        {
                        for (s=0; s<loc_n; s++)
                                {
                                for (t=0; t<loc_n; t++)
                                        {
                                        DistAdder = loc_shortL(s, k) + loc_shortL(k, t);
                                        if( DistAdder < loc_shortL(s, t))
                                                {
                                                loc_shortL(s, t) = DistAdder; // Update dist matrix
                                                }
                                        }
                                }
                        }

// calculation of the measure from Marchiori and Latora
                sum_recipr_dglob=0;
//              cout << "shortest paths for vertex " << i << endl;
                for (t=0;t<loc_n;t++)
                        {
                        for (s=0;s<loc_n;s++)
                                {
//                              cout << loc_shortL(s, t) << " ";
                                if (s!=t)
                                        {
                                        tmp=loc_shortL(s,t);
                                        sum_recipr_dglob=sum_recipr_dglob+(1/tmp);
//                                      cout << endl << "added " << (1/tmp) << endl;
                                        }
                                }
//                      cout << endl << "sumreciprdglob=" << (float) sum_recipr_dglob << endl;
                        }

                float dglob;
                gloc[i]=loc_n*(loc_n-1)/sum_recipr_dglob;
                }               // close the if for only one vertex
        }                       // close the i for loop for all actors neighbour cliques
```

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```
float glocal;
cout << "glocal vals" << endl;
//
// calculate the overall glocal
//
int counter;
counter=0;
for (i=0;i<n;i++)
      {
      cout << endl << i << "     " << gloc[i];
      if (gloc[i]> 999999)            // testing for one vertex subgraph cases
            {counter=counter+1;}      // when the neighbour clique is a single vertex
      else                            // I don't know what to do in this case
            {glocal=glocal+gloc[i];}  // but  obviously  the  sum  of  the  paths  is
undefined
      }                               //as there are no paths in a one or zero vertex
graph
glocal=glocal/(n-counter);    //cut it from both numerator and denominator
cout << endl << "overall glocal value=" << glocal << endl;

// output section (if needed)
//

//char ofilename[20];    //

//cout << "Enter output file name (20 chars max): ";
//cin >> ofilename;

//ofstream file_out(ofilename);  // create output stream; call it file_out


//file_out << "shortest paths" << endl;
//for (j=0;j<n;j++)
//      {
//      for (i=0;i<n;i++)
//            {
//            file_out << shortL(i, j) << " ";
//            }
//      file_out << endl;
//      }

//file_out.close();    // close output stream

return 0;

}
```

## Listing 3: Program for creating a regular matrix for use in comparison when testing for small worlds

```
#include <iostream.h>  // defines cout/cin
#include <fstream.h>    // needed for output to files

#include "TwoDIntArray.h" // library routine for handling matrices

int main(){

int n;
int i,j,k;

cout << "Enter n (vertices) integer: ";
cin >> n;

// Construct matrices
//=====================================================
TwoDIntArray mat(n,n);
```

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```
// make empty matrix
for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {
                mat(i,j)=0;
                }
        }

int el;

cout << "Enter distance between connected vertices: (integer)";
cin >> el;

int r;
cout << "Enter range r=2k where k is degree: ";
cin >> r;

// create regular matrix

int g, jright, jleft;
for (i=0;i<n;i++)
        {
        for (g=1;g<=r;g++)
                {
                jright=(i+g)%n;
                jleft=(i-g+n)%n;
//              cout << jright << "    " << jleft << endl;
                mat(i,jright)=el;
                mat(i,jleft)=el;
                }
        }
cout << "breakpoint";
// output section
//

char ofilename[20];    //

cout << "Enter output file name for regular matrix (20 chars max): ";
cin >> ofilename;

ofstream file_out(ofilename);  // create output stream; call it file_out


file_out << n << endl;
for (j=0;j<n;j++)
        {
        for (i=0;i<n;i++)
                {
                file_out << mat(i, j) << " ";
                }
        file_out << endl;
        }

file_out.close();   // close output stream

return 0;

}
```

# Appendix 5. Actor grades for hypothesis 4

| name | grade title | grade |
|---|---|---|
| ChiracJ(i) | president | 0.1 |
| JospinL(i) | PM | 0.2 |
| RaffarinJP(i) | PM | 0.2 |
| AubryM(i) | senior minister | 0.5 |
| FillonF(i) | senior minister | 0.5 |
| Strauss-KahnD(i) | senior minister | 0.5 |
| DelevoyeJP(i) | average minister | 0.7 |
| BasP(i) | sec gen presidency | 0.7 |
| GayssotJ-L(i) | smaller minister | 0.9 |
| CharpinJM(i) | commisaire du plan | 1 |
| DevysC(i) | dir cabinet jospin | 1 |
| SeillereEA(i) | president medef | 1 |
| CherequeF(i) | union head | 1 |
| CreysselJ | dg medef | 1.5 |
| Salat-BarouxF(i) | adj sec gen presidency | 2 |
| CirelliJF(i) | dir adj cabinet Raffarin | 2 |
| MarcelD(i) | dir cabinet aubry | 2 |
| FaugereJP(i) | dir cabinet fillon | 2 |
| LevyM(i) | external expert | 2.5 |
| SoubieR(i) | external expert | 2.5 |
| BarrotJ(i) | head of maj. party | 2.5 |
| Carrere-GéeMC(i) | cabinet elysee | 2.7 |
| BrasPL | dir adj cabinet aubry | 2.7 |
| Pisani-FerryJ(i) | senior cabinet bercy | 2.7 |
| PaoliniJ | senior cabinet fillon | 2.7 |
| MuetP(i) | cabinet jospin | 3 |
| RigaudiatJ | cabinet jospin | 3 |
| AmbielD(i) | cabinet raffarin | 3 |
| ChertierJD(i) | cabinet raffarin | 3 |
| el KarouiH(i) | cabinet raffarin | 3 |
| RocchiJF(i) | dir cabinet fonc publ | 3 |
| KesslerD(i) | neg medef | 3 |
| SarkozyG(i) | neg medef | 3 |
| TaupinB | senior journalist | 3 |
| DeroussenJL | union neg | 3 |
| DevyB(i) | union neg | 3 |
| le DuigouJC | union neg | 3 |
| MorgensternS | union neg | 3 |
| ToulisseJM | union neg | 3 |
| ChastelX(i) | cabinet aubry | 5 |
| DavanneO(i) | cabinet aubry | 5 |
| MacquartB(i) | cabinet aubry | 5 |
| Fulachier(i) | cabinet bercy | 5 |
| MeyeurP | cabinet fillon | 5 |
| LegrosF | experienced academic | 5 |
| BertrandX | rapporteur assemblee | 5 |
| CaïlaP(i) | cabinet fonc publ | 6 |
| GrimaldiS(i) | cabinet fonc publ | 6 |
| LhostisA(i) | cabinet transport | 6 |
| PechT | union officer | 6 |
| QuintinAF(i) | union officer | 6 |

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| name | grade title | grade |
|---|---|---|
| BlairT(i) | PM | 0.2 |
| BrownG(i) | Senior Minister | 0.5 |
| DarlingA(i) | Senior Minister | 0.5 |
| BallsE | Perm Sec | 1 |
| GrayP | Dep Sec | 2 |
| McCartneyl(i) | Junior Minister | 2 |
| MacPherson N | Head of Division | 3 |
| ReynoldsH(i) | *3* | *3* |
| HeywoodJ(i) | Senior Private Sec to PM | 4 |
| MallickN(i) | *Senior Lawyer* | *4* |
| MillibandD(i) | Senior Policy Adviser to PM | 4 |
| OppenheimC | Senior Policy Adviser to PM | 4 |
| BallJ | 5 | 5 |
| BettsP(i) | 5 | 5 |
| CockettN | 5 | 5 |
| CoulingN | 5 | 5 |
| HolgateN(i) | 5 | 5 |
| JohnstonE(i) | Special Adviser | 5 |
| KellyK(i) | Senior Private Sec | 5 |
| MillibandE | Special Adviser | 5 |
| SearleP | 5 | 5 |
| WilliamsM(i) | 5 | 5 |
| HornibrookB | 6 | 6 |
| AstillS | 7 | 7 |
| EatockD | 7 | 7 |
| FarrellC | 7 | 7 |
| LindsellE(i) | 7 | 7 |
| NewmanC | 7 | 7 |
| WakelyR(i) | *7* | 7 |
| WardD | 7 | 7 |
| WoodS | 7 | 7 |
| FeketeM | Econ Assistant | 8 |
| MacDonaldJ | Econ Assistant | 8 |
| PateC | Econ Assistant | 8 |
| PhippsJ | Econ Assistant | 8 |
| RogersB(i) | HEO | · 8 |

Note: italics show reported but unconfirmed data

# Appendix 6. Full lists of considered actors

**Important note**: This is a list of all actors that were considered for inclusion in the NFP from any source whatsoever. Some were from press cuttings, others mentioned causally in conversation with interviewees or other experts. The third column is given only to illustrate the sort of detective work that could be going on in the background of the data collection and sampling process. It is not part of the analytical work of the thesis.

## FRANCE
N.B. Some of the actors here are unnamed and so have codes that refer to their institutional positions. None of the information here is verified. It is merely illustrative of the process.

| Surname | First name(s) | Further information |
|---|---|---|
| Acoyer | | UMP |
| Ambiel | Dominique | Cons. Comm. Cab. Raffarin |
| Artus | D | Academic |
| Ashieri | | Syndicat |
| Aubry | Eric | Cons. Aff. Soc |
| Aubry | Martine | Former Min. Emploi et Solidarite (June 1997) |
| Ayranet | J-M | |
| Bachy | | TF1 |
| Balladur | Edouard | Former PM UMP |
| Barrot | Jacques | Assemblee |
| Bas | Philippe | Cons. Elysee |
| Bazile | F | Pres. Observatoire des retraites |
| Becresse | Jean-Francis | Les Echos |
| Bertrand | Xavier | Assemblee UMP |
| Bichot | J | Academic Uni Lyon II |
| Blanchet | Didier | Chef etudes econ INSEE |
| Blondel | Marc | CGT/FO |
| Blouet | Karine | Cons.PM Comptes Sociaux |
| Bras | Pierre-Louis | Anc. Dir. Aff.Soc./ cab. Aubry |
| Brimont | Stephane | Cabinet Raffarin |
| Brocas | Anne-Marie | Fonc. Sec Gen COR |
| Buguet | Robert | Pres. UPA (Union Prof. Artisanelle) |
| Caïla | Philippe | Cons. Tech. Cab. Delevoye |
| Carrere-Gée | Marie-Claire | Cons. Technique Cab Chirac |
| Chantepy | Christophe | Cons. Fonction publique |
| Charpentier | Francois | Liaison Sociale |
| Charpin | Jean-Michel | Anc. Comm. Au Plan (INSEE) |
| Chastel | Xavier | Cons. Tech. pensions Cabinet Aubry |
| Chereque | Francois | Sec Gen CFDT |
| Chertier | Jean-Dominique | Cons. Social PM |
| Chevrier | Vincent | Dir Soc Sec 3C Regimes Prof |
| Chirac | Jacques | President |
| Cirelli | Jean-Francois | Cons.PM Dir. Adj. Cab |
| CNAV | Admin | Admin conact of Dir ec soc in CNAV |

| | | |
|---|---|---|
| Coen | Eli | Academic Sciences-Po |
| Cornilleau | | OFCE |
| Creyssel | Jacques | MEDEF - directeur général |
| Davanne | Olivier | Dauphine (Cons Tech. Aubry) |
| Delaneau | | |
| Delevoye | Jean-Paul | Min Fonc. Pub. UMP |
| Delie | | |
| Deroussen | Jean-Louis | CFTC Spec. Retraites (Conf. franc.trav.chretiens) |
| Devy | Bernard | Force Ouvriere - Retraites |
| Devys | Christophe | Dir Cabinet Jospin |
| Domeizel | Claude | Senat |
| Douste-Blazy | Philippe | Assemblee Natioanal |
| Duhamel | Pierre-Mathieu | Dir. Du Budget |
| Dumas | M | Syndicat |
| el Karoui | Hakim | Cons. Pensions Cab. Raffarin |
| Evin | C | Politician |
| Fabius | Laurent | Anc Min Econ  (Seine Maritime/PS HQ) |
| Farnoux | Laure | Direction Sec Soc. Bur. Reg. Gen |
| Faugere | Jean Paul | Aff.Sociale - Drt Cab |
| Fillon | Francois | Min. Sec Soc. UMP |
| Fitoussi | Jean-Paul | OFCE |
| Fulachier | Jean-Luc | Cons Sociale Min Finance (Budget) Strauss-Kahn |
| Gaillard | Roland | Force Ouvriere |
| Gayssot | Jean-Luc | PCF Anc Min Transport (Jospin) |
| Geulaud | | Le Monde |
| Gremetz | | PC (assemblee Somme) |
| Grimaldi | Stéphane | Cons. Comms Cab. Delevoye |
| Guigou | Elizabeth | Anc Min. Emploi et Solidarite (Oct 2000) |
| Guilhembet | N | Dir Soc Sec 6 Sous-dir adj |
| Hollande | Francois | PS |
| Hue | Robert | Anc.Pres..Comm. |
| INSEE | Model | INSEE Modelling link to MinFin Budget |
| Israelewitz | E | Journalist |
| Jacquart | Denis | RPR-UMP rapporteur |
| Jospin | Lionel | Anc.PM Soc. |
| Juppe | Alain | Anc. PM UMP |
| Kessler | Denis | ex-MEDEF SCOR |
| Labroille | Francois | Federation syndicale unitaire |
| Lassus-Minvielle | Dominique | Dir Soc Sec 3A Regime de base |
| le Duigou | Jean-Christophe | CGT - Specialist retraites |
| Le Garrec | J | |
| Le Morvan | Frank | Dir de la Sec Soc |
| Le Roux | Mireille | Dir Soc Sec 3B Regimes Speciaux |
| Lefebvre | Eric | Dir Soc Sec 6C Etudes |
| Legros | Florence | Academic |
| Lemoine | | Conseiller |

| | | |
|---|---|---|
| Levy | Maurice | Communications Expert (Publicis) |
| Lhostis | Alain | Cons Social Gayssot |
| Lianos | Florence | Dir Soc Sec Afff. Communautaires et internat. |
| Libault | Dominique | Dir de la Sec Soc |
| Loreuzi | J-H | Academic |
| Macquart | Bruno | Anc. Cons.Tech Aubry (Pompidou Centre) |
| Mahieux | Sophie | Dir du Budget |
| Mairé | Jacques | UNSA |
| Mandraud | Isabelle | Le Monde |
| Marcel | Dominique | Dir du Cab. Aubry (Tresor) |
| Marini | P | Politician |
| Mauduit | L | Journalist |
| Mazerolles | | France2 |
| Mehaignerie | Pierre | |
| Mer | Francis | Ministre de finance UMP (ex MEDEF) |
| Meyeur | Pierre | Conseiller tech. Cab. Fillon |
| MinFin | Budget | Min Finance Budget |
| MinFin | Comptes | Min Finance Comptes |
| MinFin | Models | Min Finance Models |
| Mitrofanoff | Igor | Cons. Aff. Soc |
| Moreau | Yannick | COR |
| Morgenstern | Solange | CFECGC - Prot. Sociale (Synd cadre) |
| Muet | Pierre-Alain | Cons. Econ Jospin |
| Nathan | Herve | Liberation |
| Notat | Nicole | Syndicat |
| Paolini | Jerome | Cons Aff. Soc. |
| Pech | Thierry | CGT/Republique des idees |
| Pele | Louis-Paul | Dir Soc Sec 6A Comptes |
| Pierre | Jean-Philippe | Cons. Parl. Cab. Fillon |
| Pisani-Ferry | Jean | Cons. Aupres Strauss-Kahn |
| Quinet | Alain | Cons.PM |
| Quintin | Anne-Florence | CFDT |
| Raffarin | Jean-Pierre | PM UMP |
| Rey | Jean-Louis | Dir Soc Sec 5 Sous-Dir |
| Richard | Jacky | DG admin et Fonc. Pub. |
| Ricordeau | Pierre | Dir Soc Sec Chef Service Adj au Dir |
| Rigaudiat | Jacques | Anc. Cons soc Jospin (Cour de comptes) |
| Rocard | Michel | PS (former PM) |
| Rocchi | Jean-Francois | Cons. Fonc. Publ. |
| Salat-Baroux | Frederic | Sec Gen Adj. Elysee |
| Sapin | Michel | Anc min fonc publique (Mars 2000) |
| Sarkozy | Guillaume | MEDEF |
| Sauttec | C | |
| Schramek | O | Cons. Soc PM |
| Seillere | Ernest Antoine | President MEDEF |
| Seux | D | Les Echos |
| Soubie | Raymond | Expert independent (PDG Altedia) |
| Soulage | B | |

| | | |
|---|---|---|
| Sterdyniak | Henri | OFCE |
| Strauss-Kahn | Dominique | Anc Min Econ (June 1997) (Val d'oise/PS) |
| Taddei | D | |
| Taupin | Beatrice | Le Figaro btaupin@lefigaro.fr |
| Teulade | R | |
| Thibault | Bernard | CGT |
| Tisserond | Stephanie | Journaliste Tribune |
| Toulisse | Jean Marie | CFDT |
| Touraine | Alain | |
| Touraine | Marisol | PS - Resp Prot. Soc. |
| Vasselle | Alain | Senat |
| Vigouroux | Robert | Dir du cabinet Guigou |
| Villeroy de Galhau | Francois | Chef Cabinet Strauss-Kahn |
| Waquet | Cecile | Dir Soc Sec 5B Legislation Financiere |
| Wenz-Dumas | | Liberation |
| Zucarelli | Emile | Former Min. Fonc. Pub (June 1997) |

## UK

N.B. The information for the UK is much less illuminating about the process as there was much more information available to me from the start as a result of my personal experience in the policy area in the UK.. Even so, again none of the information here is verified as accurate. It is for illustrative purposes of how the procedure works.

| Surname | First name(s) | Further information |
|---|---|---|
| Akroyd | Emily | DWP |
| Astill | Stuart | DWP (LSE) |
| Athow | Jonathon | HMT |
| Ball | John | DWP |
| Balls | Ed | HMT |
| Bartlett | Phil | DWP |
| Betts | Pete | HMT |
| Bielby | Mike | IR |
| Bilsborough | Mark | HMT |
| Blair | Tony | No.10 |
| Broome | Mara | DWP |
| Brown | Gordon | HMT |
| Cockett | Norman | DWP |
| Couling | Neil | DWP |
| Cunliffe | Harry | DWP |
| Darling | Alastair | DT |
| Digace | Norman | FSA |
| Dodd | Cherie | DWP |
| Eatock | Dave | DWP |
| Eghan | Daniel | DoH |
| Farrell | Claire | DWP |
| Feighan | Guy | DWP |
| Fekete | Mike | DWP |
| Glassboro | Stuart | DWP |
| Gray | Paul | DWP |
| Guest | Chris | DWP |

| | | |
|---|---|---|
| Hawkins | Deborah | DWP |
| Heminsley | Steve | DWP |
| Heywood | Jeremy | No.10 |
| Hillary | Jude | HMT |
| Holgate | Nick | HMT |
| Hornibrook | Bridget | |
| Hughes | John | DWP |
| Johnson | Paul | DFE |
| Johnston | Elspeth | |
| Kelly | Kate | DWP |
| Lindsell | Emma | HMT |
| Logan | Frances | DWP |
| Lomax | Rachel | Bank of England |
| MacDonald | Jacob | DWP |
| Mackrell | Paul | DWP |
| MacPherson | Nick | HMT |
| Mallick | Naomi | DWP |
| Marney | John | IR |
| Mathieson | Michelle | DWP |
| McCartney | Ian | DWP |
| McClean | Clare | DWP |
| Milliband | David | DFE |
| Milliband | Ed | HMT |
| Newman | Cliff | DWP |
| Oppenheim | Carey | No10 |
| Pate | Charlie | HMT |
| Phipps | James | DWP |
| Powell | Sue | DWP |
| Rafferty | Irene | DWP |
| Reynolds | Hilary | DWP |
| Rodgers | Gary | DWP |
| Rogers | Bridget | DWP |
| Rooker | Jeff | ODPM |
| Ross | Tom | PPG |
| Sanderson | Andrew | HMT |
| Searle | Pete | DWP |
| Smith | Andrew | HMT (chief Sec.) |
| Thomas | Gareth | DWP |
| Thorne | Charlotte | HMT |
| Tokley | Steven | DWP |
| Tottie | David | DWP |
| Wakely | Rob | DWP |
| Warburton | Raymond | DoH |
| Ward | Donna | DWP |
| West | Sally | HtA |
| Williams | Mike | HMT |
| Wilson | Richard | Former Cabinet Sec |
| Wood | Sarah | HMT |

# Appendix 7. The interview links sheet

Actor Code [_____]                                           Date [_____]
## Interview form - contacts table
Interviewee [_____]

| Contact: | Organisation label: | | | Functional label: |
|---|---|---|---|---|
| | Link strength (1 - lowest, 5- highest) | | | |
| Type of contact | (i) Overall | (ii)I Face to face | (ii)II Telephone - email | (ii)III Written |
| B.x.a Information provision/ receipt | | | | |
| B.x.b Policy decisions | | | | |
| B.x.c Policy discussion | | | | |
| B.x.d Overall contact | | | | |
| B.x.e Non-policy contact | | | | |

| Contact: | Organisation label: | | | Functional label: |
|---|---|---|---|---|
| | Link strength (1 - lowest, 5- highest) | | | |
| Type of contact | (i) Overall | (ii)I Face to face | (ii)II Telephone - email | (ii)III Written |
| B.x.a Information provision/ receipt | | | | |
| B.x.b Policy decisions | | | | |
| B.x.c Policy discussion | | | | |
| B.x.d Overall contact | | | | |
| B.x.e Non-policy contact | | | | |

| Contact: | Organisation label: | | | Functional label: |
|---|---|---|---|---|
| | Link strength (1 - lowest, 5- highest) | | | |
| Type of contact | (i) Overall | (ii)I Face to face | (ii)II Telephone - email | (ii)III Written |
| B.x.a Information provision/ receipt | | | | |
| B.x.b Policy decisions | | | | |
| B.x.c Policy discussion | | | | |
| B.x.d Overall contact | | | | |
| B.x.e Non-policy contact | | | | |

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# Appendix 8. The interview 3rd party reporting sheet

Actor Code                                                     Date

## Interview form - Reporting 3rd party links

Interviewee

| Contact | | | Overall strength | Link strength (1 - lowest, 5- highest) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Information provision/ receipt C.x-y.a | Policy decisions C.x-y.b | Policy discussion C.x-y.c | Overall contact C.x-y.d | Non-policy contact C.x-y.e |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |
| From: | | To: | | | | | | |

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# Appendix 9. Extract of data for one interviewee

This table should be read in conjunction with the form in Appendix 6.

| from | to | link value | reported by | type of contact | link identity |
|------|------|------|------|------|------|
| 1003 | 1001 | 5 | 1003 | a | (ii)I |
| 1003 | 1001 | 5 | 1003 | a | (ii)II |
| 1003 | 1001 | 5 | 1003 | a | (ii)III |
| 1003 | 1001 | 5 | 1003 | a | i |
| 1003 | 1001 | 3 | 1003 | b | (ii)I |
| 1003 | 1001 | 2 | 1003 | b | (ii)II |
| 1003 | 1001 | 2 | 1003 | b | (ii)III |
| 1003 | 1001 | 2 | 1003 | b | i |
| 1003 | 1001 | 5 | 1003 | c | (ii)I |
| 1003 | 1001 | 3 | 1003 | c | (ii)II |
| 1003 | 1001 | 3 | 1003 | c | (ii)III |
| 1003 | 1001 | 5 | 1003 | c | i |
| 1003 | 1001 | 4 | 1003 | d | i |
| 1003 | 1001 | 1 | 1003 | e | i |
| 1003 | 1002 | 5 | 1003 | a | (ii)I |
| 1003 | 1002 | 1 | 1003 | a | (ii)II |
| 1003 | 1002 | 1 | 1003 | a | (ii)III |
| 1003 | 1002 | 2 | 1003 | a | i |
| 1003 | 1002 | 5 | 1003 | b | (ii)I |
| 1003 | 1002 | 1 | 1003 | b | (ii)II |
| 1003 | 1002 | 1 | 1003 | b | (ii)III |
| 1003 | 1002 | 1 | 1003 | b | i |
| 1003 | 1002 | 5 | 1003 | c | (ii)I |
| 1003 | 1002 | 1 | 1003 | c | (ii)II |
| 1003 | 1002 | 1 | 1003 | c | (ii)III |
| 1003 | 1002 | 5 | 1003 | c | i |
| 1003 | 1002 | 5 | 1003 | d | i |
| 1003 | 1002 | 5 | 1003 | e | i |
| 1003 | 1004 | 1 | 1003 | a | (ii)I |
| 1003 | 1004 | 4 | 1003 | a | (ii)II |
| 1003 | 1004 | 2 | 1003 | a | (ii)III |
| 1003 | 1004 | 3 | 1003 | a | i |
| 1003 | 1004 | 4 | 1003 | b | (ii)I |
| 1003 | 1004 | 2 | 1003 | b | (ii)II |
| 1003 | 1004 | 3 | 1003 | b | (ii)III |
| 1003 | 1004 | 3 | 1003 | b | i |
| 1003 | 1004 | 4 | 1003 | c | (ii)I |
| 1003 | 1004 | 2 | 1003 | c | (ii)II |
| 1003 | 1004 | 3 | 1003 | c | (ii)III |
| 1003 | 1004 | 3 | 1003 | c | i |
| 1003 | 1004 | 2 | 1003 | d | i |
| 1003 | 1004 | 1 | 1003 | e | i |
| 1003 | 1005 | 5 | 1003 | a | (ii)I |
| 1003 | 1005 | 1 | 1003 | a | (ii)II |

## Appendix 10. Screenshot of the input form in Microsoft Access

**Note**: should be read in conjunction with the interview links sheet in Appendix 7 and the Data for one interviewee in Appendix 9.

# Appendix 11. Labels for hypotheses 1 and 2

| Name | Functional Label | Organisation Label |
| --- | --- | --- |
| AstillS | Analyst | DWP |
| BallJ | Analyst | DWP |
| BallsE | Special Adviser | Treasury |
| BettsP | Generalist | Treasury |
| BlairT | Politician | No. 10 |
| BrownG | Politician | Treasury |
| CockettN | Generalist | DWP |
| CoulingN | Generalist | DWP |
| DarlingA | Politician | DWP |
| EatockD | Generalist | DWP |
| FarrellC | Generalist | DWP |
| FeketeM | Analyst | DWP |
| GrayP | Generalist | DWP |
| HeywoodJ | Generalist | No. 10 |
| HolgateN | Generalist | Treasury |
| HornibrookB | Lawyer | DWP |
| JohnstonE | Special Adviser | DWP |
| KellyK | Generalist | DWP |
| LindsellE | Generalist | Treasury |
| MacDonaldJ | Analyst | DWP |
| MacPhersonN | Generalist | Treasury |
| MallickN | Lawyer | DWP |
| McCartneyI | Politician | DWP |
| MillibandD | Special Adviser | No. 10 |
| MillibandE | Special Adviser | Treasury |
| NewmanC | Generalist | DWP |
| OppenheimC | Special Adviser | No. 10 |
| PateC | Generalist | Treasury |
| PhippsJ | Analyst | DWP |
| ReynoldsH | Generalist | DWP |
| RogersB | Generalist | DWP |
| SearleP | Generalist | DWP |
| WakelyR | Generalist | DWP |
| WardD | Analyst | DWP |
| WilliamsM | Generalist | Treasury |
| WoodS | Generalist | Treasury |

| Name | Functional Label | Organisation | Party | Org. label | Func./party label |
|---|---|---|---|---|---|
| AmbielD | Cabinet | Matignon | droite | md | cd |
| AubryM | Politician | ministry social affairs | socialiste | mass | ps |
| BarrotJ | Politician | legislature | | leg | pd |
| BasP | Cabinet | presidence | | pres | cd |
| BertrandX | Politician | legislature | | leg | pd |
| BrasPL | Cabinet | ministry social affairs | socialiste | mass | cs |
| CaïlaP | Cabinet | ministry fonction publique | droite | fpd | cd |
| Carrere-GéeMC | Cabinet | presidence | | pres | cd |
| CharpinJM | Haut Fonctionnaire | [single] | | x | h |
| ChastelX | Cabinet | ministry social affairs | socialiste | mass | cs |
| CherequeF | Social Partner Chief | Syndicat (union) | | s | spc |
| ChertierJD | Cabinet | Matignon | droite | md | cd |
| ChiracJ | Politician | presidence | | pres | pd |
| CirelliJF | Cabinet | Matignon | droite | md | cd |
| CreysselJ | Social Partner Chief | MEDEF | | medef | spc |
| DavanneO | Cabinet | ministry social affairs | socialiste | mass | cs |
| DelevoyeJP | Politician | ministry fonction publique | droite | fpd | pd |
| DeroussenJL | Social Partner Negotiator | Syndicat (union) | | s | spn |
| DevyB | Social Partner Negotiator | Syndicat (union) | | s | spn |
| DevysC | Cabinet | Matignon | socialiste | ms | cs |
| el KarouiH | Cabinet | Matignon | droite | md | cd |
| FaugereJP | Cabinet | ministry social affairs | droite | masd | cd |
| FillonF | Politician | ministry social affairs | droite | masd | pd |
| Fulachier | Cabinet | ministry social affairs | socialiste | mass | cs |
| GayssotJ-L | Politician | Ministry of Transport | socialiste | mts | ps |
| GrimaldiS | Cabinet | ministry fonction publique | droite | fpd | cd |
| JospinL | Politician | Matignon | socialiste | ms | ps |
| KesslerD | Social Partner Negotiator | MEDEF | | medef | spn |
| le DuigouJC | Social Partner Negotiator | Syndicat (union) | | s | spn |
| LegrosF | Academic | [single] | | x | a |
| LevyM | Expert | [single] | | x | e |
| LhostisA | Cabinet | Ministry of Transport | socialiste | mts | cs |
| MacquartB | Cabinet | ministry social affairs | socialiste | mass | cs |
| MarcelD | Cabinet | ministry social affairs | socialiste | mass | cs |
| MeyeurP | Cabinet | ministry social affairs | droite | masd | cd |
| MorgenstemS | Social Partner Negotiator | Syndicat (union) | | s | spn |
| MuetP | Cabinet | Matignon | socialiste | ms | cs |
| PaoliniJ | Cabinet | ministry social affairs | droite | masd | cd |
| PechT | Social Partner Officer | Syndicat (union) | | s | spo |
| Pisani-FerryJ | Cabinet | Bercy | socialiste | bs | cs |
| QuintinAF | Social Partner Officer | Syndicat (union) | | s | spo |
| RaffarinJP | Politician | Matignon | droite | md | ps |
| RigaudiatJ | Cabinet | Matignon | socialiste | ms | cs |
| RocchiJF | Cabinet | ministry fonction publique | droite | fpd | cd |
| Salat-BarouxF | Cabinet | presidence | | pres | cd |
| SarkozyG | Social Partner Negotiator | MEDEF | | medef | spn |
| SeillereEA | Social Partner Chief | MEDEF | | medef | spc |
| SoubieR | Expert | [single] | | x | e |
| Strauss-KahnD | Politician | Bercy | socialiste | bs | ps |
| TaupinB | Journalist | [single] | | x | j |
| ToulisseJM | Social Partner Negotiator | Syndicat (union) | | s | spn |

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# Appendix 12. The stages for hypothesis 4

Note: F-W-gd stands for Floyd-Warshall geodesic, the average path length to all other nodes

UK stages:

| name | F-W-gd | stage |
|---|---|---|
| AstillS | 3.7 | Both |
| BallsE | 3.6 | Both |
| BrownG | 2.9 | Both |
| DarlingA | 2.7 | Both |
| FeketeM | 4.1 | Both |
| MillibandE | 2.7 | Both |
| NewmanC | 3.1 | Both |
| PhippsJ | 5.6 | Both |
| RogersB | 4.9 | Both |
| WardD | 4.6 | Both |
| BallJ | 8.4 | Shaping |
| BlairT | 6.1 | Shaping |
| CoulingN | 3.5 | Shaping |
| GrayP | 4.3 | Shaping |
| HeywoodJ | 5.2 | Shaping |
| HolgateN | 5.3 | Shaping |
| JohnstonE | 3.7 | Shaping |
| LindsellE | 3.3 | Shaping |
| MacDonaldJ | 5.6 | Shaping |
| MacPhersonN | 3.5 | Shaping |
| MillibandD | 6.1 | Shaping |
| OppenheimC | 8.1 | Shaping |
| SearleP | 4.7 | Shaping |
| WilliamsM | 5.6 | Shaping |
| BettsP | 4.7 | Pre-legislative |
| CockettN | 4.0 | Pre-legislative |
| EatockD | 5.3 | Pre-legislative |
| FarrellC | 5.7 | Pre-legislative |
| HornibrookB | 6.2 | Pre-legislative |
| KellyK | 5.4 | Pre-legislative |
| MallickN | 6.6 | Pre-legislative |
| McCartneyI | 6.9 | Pre-legislative |
| PateC | 4.4 | Pre-legislative |
| ReynoldsH | 6.9 | Pre-legislative |
| WakelyR | 6.9 | Pre-legislative |
| WoodS | 4.9 | Pre-legislative |

France stages:

| name | F-W-gd | stage |
|---|---|---|
| BasP | 6.5 | Both |
| Carrere-GéeMC | 6.9 | Both |
| CherequeF | 4.9 | Both |
| ChiracJ | 6.3 | Both |
| CreysselJ | 6.2 | Both |
| DeroussenJL | 7.3 | Both |
| DevyB | 7.3 | Both |
| le DuigouJC | 4.9 | Both |
| LegrosF | 6.8 | Both |
| MorgensternS | 6.1 | Both |
| QuintinAF | 7.0 | Both |
| Salat-BarouxF | 7.4 | Both |
| SeillereEA | 6.4 | Both |
| TaupinB | 6.0 | Both |
| ToulisseJM | 4.1 | Both |
| AmbielD | 6.7 | Legislative |
| BarrotJ | 7.0 | Legislative |
| BertrandX | 9.8 | Legislative |
| CaïlaP | 7.1 | Legislative |
| CharpinJM | 6.5 | Legislative |
| ChertierJD | 6.3 | Legislative |
| CirelliJF | 5.3 | Legislative |
| DelevoyeJP | 6.5 | Legislative |
| el KarouiH | 7.4 | Legislative |
| FaugereJP | 4.8 | Legislative |
| FillonF | 4.6 | Legislative |
| GrimaldiS | 7.9 | Legislative |
| LevyM | 8.0 | Legislative |
| MarcelD | 6.6 | Legislative |
| MeyeurP | 5.3 | Legislative |
| PaoliniJ | 5.5 | Legislative |
| RaffarinJP | 5.4 | Legislative |
| RocchiJF | 7.3 | Legislative |
| SarkozyG | 5.9 | Legislative |
| SoubieR | 8.0 | Legislative |
| AubryM | 7.1 | Preparative |
| BrasPL | 7.1 | Preparative |
| ChastelX | 8.0 | Preparative |
| DavanneO | 8.4 | Preparative |
| DevysC | 6.2 | Preparative |
| Fulachier | 8.9 | Preparative |
| GayssotJ-L | 8.5 | Preparative |
| JospinL | 6.5 | Preparative |
| KesslerD | 6.4 | Preparative |
| LhostisA | 7.7 | Preparative |
| MacquartB | 9.1 | Preparative |
| MuetP | 7.1 | Preparative |
| PechT | 7.9 | Preparative |
| Pisani-FerryJ | 7.4 | Preparative |
| RigaudiatJ | 5.3 | Preparative |
| Strauss-KahnD | 7.3 | Preparative |

# Appendix 13. T-tests for the stages hypothesis

UK t-tests:

t-Test: Two-Sample Assuming Unequal Variances

|                              | Both   | Shaping |             |
|------------------------------|--------|---------|-------------|
| Mean                         | 3.79   | 5.23    |             |
| Variance                     | 1.02   | 2.57    |             |
| Observations                 | 10     | 14      |             |
| Hypothesized Mean Difference | 0      |         |             |
| df                           | 22     |         |             |
| t Stat                       | -2.704 |         | Significant |
| P(T<=t) one-tail             | 0.006  |         |             |
| t Critical one-tail          | 1.717  |         |             |
| P(T<=t) two-tail             | 0.013  |         |             |
| t Critical two-tail          | 2.074  |         |             |

t-Test: Two-Sample Assuming Unequal Variances

|                              | Shaping | Pre-leg |                 |
|------------------------------|---------|---------|-----------------|
| Mean                         | 5.23    | 5.64    |                 |
| Variance                     | 2.57    | 1.08    |                 |
| Observations                 | 14      | 12      |                 |
| Hypothesized Mean Difference | 0       |         |                 |
| df                           | 22      |         |                 |
| t Stat                       | -0.781  |         | Non-significant |
| P(T<=t) one-tail             | 0.222   |         |                 |
| t Critical one-tail          | 1.717   |         |                 |
| P(T<=t) two-tail             | 0.443   |         |                 |
| t Critical two-tail          | 2.074   |         |                 |

t-Test: Two-Sample Assuming Unequal Variances

|                              | Both   | Pre-leg |             |
|------------------------------|--------|---------|-------------|
| Mean                         | 3.79   | 5.64    |             |
| Variance                     | 1.02   | 1.08    |             |
| Observations                 | 10     | 12      |             |
| Hypothesized Mean Difference | 0      |         |             |
| df                           | 19     |         |             |
| t Stat                       | -4.228 |         | Significant |
| P(T<=t) one-tail             | 0.000  |         |             |
| t Critical one-tail          | 1.729  |         |             |
| P(T<=t) two-tail             | 0.000  |         |             |
| t Critical two-tail          | 2.093  |         |             |

France t-tests:

t-Test: Two-Sample Assuming Unequal Variances

|  | Both | Pre-leg |  |
|---|---|---|---|
| Mean | 6.27 | 7.42 |  |
| Variance | 0.93 | 1.05 |  |
| Observations | 15 | 16 |  |
| Hypothesized Mean Dif | 0 |  |  |
| df | 29 |  |  |
| t Stat | -3.195 |  | significant |
| P(T<=t) one-tail | 0.002 |  |  |
| t Critical one-tail | 1.699 |  |  |
| P(T<=t) two-tail | 0.003 |  |  |
| t Critical two-tail | 2.045 |  |  |

t-Test: Two-Sample Assuming Unequal Variances

|  | Both | Legisl |  |
|---|---|---|---|
| Mean | 6.27 | 6.61 |  |
| Variance | 0.93 | 1.66 |  |
| Observations | 15 | 20 |  |
| Hypothesized Mean Dif | 0 |  |  |
| df | 33 |  |  |
| t Stat | -0.869 |  | Non-significant |
| P(T<=t) one-tail | 0.196 |  |  |
| t Critical one-tail | 1.692 |  |  |
| P(T<=t) two-tail | 0.391 |  |  |
| t Critical two-tail | 2.035 |  |  |

t-Test: Two-Sample Assuming Unequal Variances

|  | Legisl | Pre-leg |  |
|---|---|---|---|
| Mean | 6.61 | 7.42 |  |
| Variance | 1.66 | 1.05 |  |
| Observations | 20 | 16 |  |
| Hypothesized Mean Dif | 0 |  |  |
| df | 34 |  |  |
| t Stat | -2.10 |  | Significant |
| P(T<=t) one-tail | 0.02 |  |  |
| t Critical one-tail | 1.69 |  |  |
| P(T<=t) two-tail | 0.04 |  |  |
| t Critical two-tail | 2.03 |  |  |

# Appendix 14. Interviewees

## List of interviewees - France

Xavier Bertrand - 'Rapporteur'/ Deputy (Now Minister for Health)

Pierre-Louis Bras – Chef de Cabinet Martine Aubry/ Directeur de Securite Social (Now Head of the Inspection Generale de Securite Sociale)

Stefan Brimont – Conseiller Technique (Finance) Raffarin

Anne-Marie Brocas – Secretaire Generale du COR

Jacques Creyssel – Directeur General de MEDEF

Jean-Jacques Deroussen – Negotiator for CFTC

Jean-Paul Fitoussi – Director of OFCE and member of the Conseil Economique et Social

Florence Legros – University Paris X - Dauphine

Jean-Christophe Le Duigou – Negotiator for CGT

Franck Le Morvan – Assistant Director in Securitie Sociale

Isabelle Mandraud – Journalist at 'Le Monde'

Pierre Mayeur – Conseiller Technique (Pensions) to Fillon

Solange Morgenstern – Negotiator for -CGC

Bruno Palier – Academic at Science-Po

Jerome Paolini – Conseiller aupres de Fillon

Thierry Pech – CFDT officer (now Director of think-tank 'La Republique des Idees')

Jacques Rigaudiat – Conseiller affaires sociales Jospin (Now Cour des Comptes)

Michel Rocard - Former Prime Minister (Now MEP)

Henri Sterdinyak – Academic at OFCE

Beatrice Taupin – Journalist on 'Le Figaro'

Jean-Marie Toulisse – Negotiator for CFDT

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*An anonymous highly placed source*

# List of interviewees - UK

John Ball - Head of Pensions Analysis Division, DWP

Ed Balls - Chief Economic Adviser, HMT (Now MP)

Norman Cockett - Head of State Pension Strategy Division, DWP

Neil Couling - Private Secretary to Alastair Darling, DWP (now Head of SE Region Jobcentreplus)

Dave Eatock - Policy Manager, State Pension Strategy Division, DWP

Claire Farrell - Policy Manager, State Pension Strategy Division, DWP

Mike Fekete - Assistant Economist Pensioner IRBs, DWP

Paul Gray - Acting Second Permanent Secretary (Head of Policy Group), DWP

Bridget Hornibrook - Lawyer, DWP

Jacob MacDonald - Assistant Economist, Pensioner IRBs, Pensions Analysis Division, DWP

Nick MacPherson - Head of Group, HMT (now Permanent Secretary, HMT)

Ed Milliband - Special Advisor to Gordon Brown (now MP)

Cliff Newman - Policy Manager, State Pension Strategy Division, DWP

Carey Oppenheim - Senior Policy Adviser - Welfare, No. 10

Charlie Pate - Economic Advisor, HMT

James Phipps - Assistant Economist, Pensioner IRBs, Pensions Analysis Division, DWP

Tom Ross - Chair of Pensions Provision Group and Vice President Council of Faculty of Actuaries


Pete Searle - Senior Policy Manager, State Pension Strategy Division, DWP

Donna Ward - Economic Adviser - Private Pensions, Pensions Analysis Division, DWP

Sarah Wood - Team Manager, HMT

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